

CHAPTER 3

AFFECTED ENVIRONMENT

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3. Affected Environment

This section of the Draft Management Plan/Environmental Impact Analysis provides a summary of the existing environment and existing management of the BLM and Forest Service managed lands within the boundary of the National Monument. Some description of non-Federal lands is included in this section in order to provide a more complete summary of the environment.

This Chapter begins with a description of the setting of the National Monument followed by a summary of the existing management of the resources that the National Monument was established to protect. Subsequent sections outline existing land use designations and additional management guidance.

3.A. History and Setting

3.A.1. History of activities to protect land within Santa Rosa and San Jacinto Mountains

The Santa Rosa and San Jacinto Mountains have a long history of Federal, Tribal, State, County, local and community supported protection and preservation of resources. Multiple past actions leading up the designation of the National Monument provide a picture of the regional support that has been attributed to the area.

- The San Bernardino Forest Reserve was established in 1893, the San Jacinto Forest Reserve was established in 1897, and in 1925, the San Bernardino National Forest was created.
- Southern Pacific Land Company, Forest Service and Riverside County worked together to establish protection for the San Jacinto Mountains. The idea of the California State Parks evolved in 1927 and the San Jacinto Mountain State Park Association was incorporated in 1928 with the goal of preserving a portion of San Jacinto mountains. In 1928, a bond was passed to acquire lands for Mount San Jacinto State Park. Current acreage of Mount San Jacinto State Park within the Natural Monument is 8,614 acres with 5,785 acres being Wilderness . (Figure 4)
- In 1917, State legislature established a game refuge on the eastern slope of the Santa Rosa Mountains. An additional state game refuge was established on the San Jacinto Mountains in 1927. Current State Game Refuge 4D acreage within the National Monument is 96,915 acres. Of that, 20,588 acres are managed by the Forest Service and 31,899 acres are managed by BLM. State Game Refuge 4G current acreage within the National Monument is 28,144 acres. Of that, 18,894 acres are managed by Forest Service and 33 acres are managed by BLM.
- In 1921, the first County-run public park was established by Riverside County in Idyllwild, just outside the boundary of the National Monument.
- California Department of Fish and Game began focusing land acquisition for wildlife values in the 1960s. Hidden Palms Ecological Reserve, Carrizo

Canyon Ecological Reserve, and Magnesia Falls Ecological Reserve were all established by the California Department of Fish and Game in order to protect species and habitats. Current Fish and Game acreage within the National Monument equals 28,900 acres.

- In 1970, the Philip L. Boyd Deep Canyon Desert Research Center was dedicated as part of the University of California's Natural Reserve System. Current Deep Canyon acreage within the National Monument is 8,600 acres.
- The San Jacinto Wilderness was established in 1964, with additional acres added in 1984 by the California Desert Act. This act also set aside the Santa Rosa Wilderness on Forest Service administered land. BLM added the Santa Rosa Wilderness Additions in 1994 under the California Desert Protection Act. (Figure 4)
- BLM lands in the Santa Rosas were designated as a National Scenic Area in 1990.
- The state agency, Coachella Valley Mountains Conservancy, has a mission to acquire and protect mountainous lands surrounding the Coachella Valley. Current Mountain Conservancy acreage within the National Monument is 1,200 acres.
- The Agua Caliente has an existing Tribal Conservation Program that was recently supplemented by the completion of a Habitat Conservation Plan (2002). Current Agua Caliente acreage within the National Monument is 19,800 acres. (Figure 4)
- Coachella Valley cities are involved in a Habitat Conservation Planning effort (Coachella Valley Multiple Species Habitat Conservation Plan) which will identify lands for conservation purposes
- Private Conservation Organizations (The Nature Conservancy, American Land Conservancy, Friends of the Desert Mountains) have contributed to the protection of the mountains through acquisition.

History Prior to 1890

The Cahuilla Indians were first to establish a living in the Santa Rosa and San Jacinto Mountains. Much of tribal life centered around the lush vegetation and abundant water in the area known as Indian Canyons, site of North America's largest natural fan palm oases. Juan Bautista de Anza led a famous inland expedition through the mountains in 1774 and again a year later. Rancho San Jacinto, an outlying cattle ranch of Mission San Luis Rey, was founded sometime after 1816 and gave its name to the mountains. Rancho San Jacinto Viejo was granted by the Mexican government to Jose Antonio Estudillo in 1842. Estudillo and his Mexican and Indian vaqueros tended large herds of cattle in the valley and depended on water that flowed from the mountains.

In 1853, a government survey party mapped Palm Springs and its natural hot springs mineral pool -- now the site of the Spa Hotel and Casino -- and established the first wagon route through the San Gorgonio Pass (now I-10). In 1877, as an incentive to

complete a railroad to the Pacific, the US government gave Southern Pacific Railroad title to the odd-numbered parcels of land for 10 miles on either side of the tracks running through the Southern California desert around Palm Springs. The even-numbered parcels of land were given to the Agua Caliente, but federal law prohibited them from leasing or selling the land to derive income from it.

Cattlemen soon rode into the mountains upon American occupation of California. What is now Garner Valley, just outside the National Monument boundary, provided high meadows for cattle raising for Charles Thomas, as well as other cattle raising families – Hamiltons, Tripps, Reeds, Arnaizes and Wellmans. A drought during the years of 1862 - 1865 drove cattlemen into the mountains in search of water for thirsty cattle.

Early valley and mountain development

Palm Springs was founded in 1876 and became incorporated as a city in 1938. At that time, there were only a couple hundred people living in Palm Springs. It had one cafe, one grocery, one drug store and a small branch bank. In 1884, Judge John Guthrie McCallum of San Francisco arrived in Palm Springs with his family, seeking health for his tubercular son. The first permanent non-Indian settler, Mc Callum purchased land from Southern Pacific and built an elaborate aqueduct. Dr Welwood Murray built the first hotel, The Palm Springs Hotel, in 1886. The mountain areas near present day Idyllwild were also destinations for recreation and solitude. The first mountain resort community was established in Strawberry Valley in 1890. Camp Idyllwild and John and Mary's Keen's Keen House and the Idyllwild Sanitorium catered to summer visitors. The Idyllwild Inn was constructed in 1905 and served as a center for social activities in Strawberry Valley. During the early nineteen hundreds John Muir visited both the San Jacinto Mountains and the Coachella Valley.

The Palm Springs area continued attracting more visitors and non-Indian residents, but it was not until President Eisenhower signed the Equalization Law in 1959 that tribes could realize profits from their lands. During these years Palm Springs grew rapidly. In 1909 Nellie Coffman's Desert Inn opened, as did a garage for servicing the vehicles that brought visitors from the East Coast and Los Angeles, and a school for the children of handful of year-round residents. By the time it was incorporated in 1938, the Village of Palm Springs had become world famous as a winter playground for Hollywood stars, European royalty and business tycoons, all who came to enjoy the endless sunshine and serenity of the desert. Rapid growth and increasing numbers of visitors and year round residents put increasing pressure on the recreation resources of the surrounding foothills and mountains. One local group, the Desert Riders, found that if they were to continue to ride their horses in the Palm Springs area, they must do something to protect the trails. As early as 1932, the Desert Rider's original Trails Boss maintained and encouraged use of these trails, particularly trails that explored the canyons and those that reached high into the mountains. The mountain areas were also growing during this time. By 1945, there were fewer than 450 residents living in Idyllwild, Pine Cove, and Mountain Center. By the end of the 1950s the population had risen to 2,500. Mountain home development began steadily increasing after 1920 and the Idyllwild School of Music and the Arts held its first summer session in 1950.

During World War II, the desert became training grounds for General George S. Patton's troops as they prepared to invade North Africa. El Mirador Hotel, second home to the stars and the site of today's Desert Regional Medical Center, served as Torney General

Hospital, treating U.S. wounded. Italian prisoners of war, housed at the adjoining detention camp, labored at the hospital.

During the 1960s, the southern California population boom continued and along with that a boom in affordable vehicles and motorcycles. The western desert became a very popular place to escape the urban routine, driving desert roads and cross country, camping, hunting, and sightseeing and motorized vehicle racing. The mountain communities continued to provide recreation destinations for southern Californians. Along with the social benefits provided by these land uses came increases in access routes, surface disturbances, and impacts to natural and cultural values. But with visitation also came an increased public awareness and concern for the desert and mountain environments.

The post-war era ushered in tremendous growth as Palm Springs' natural environment was no longer a secret of just the wealthy. With tourism's growth, attractions and resorts flourished. Development spread "down valley." With the advent of air-conditioning, visitors and residents stayed year-round.

On October 12, 1963, the Palm Springs Aerial Tramway was officially opened. Credit for conceiving the Tramway project goes to Francis Crocker, manager of the California Electric Power Company, who came to Palm Springs in 1932. There was no air conditioning in those days, and Crocker thought it would be wonderful to travel quickly up to the mountain where it was cool. Crocker spent 30 years planning, financing, and building the tramway. Before it was over, approximately 600 tons of steel were used in the fabrication of the tramway cables and towers using more than 27 miles of locked-coil cable, wire rope and strand.

Activities from 1970 to present.

Between 1970 and 2002, the greater Coachella Valley and mountain communities have continued to grow. Tourism promotion has spurred the development of over 100 golf courses and promotion of the area as a resort destination continues to add to the increase in population. Tourism has been a driving economic force for all of the Coachella Valley cities that border the National Monument. Year-round living within the Coachella Valley has increased exponentially within the last twenty years. Increasing population pressures are also being felt in mountain communities and issues such as sufficient water sources, increasing fire danger, managing drought conditions, and mountain lifestyles being affected by increasing recreation seekers have developed as issues of concern for residents.

BLM and Forest Service lands are becoming increasingly important to the public as a source of recreational opportunities, open space, community infrastructure and wildlife. Southern California and the Southwest urban populations are continuing to grow, placing pressure on the open spaces that are remaining.

The recent completion and continued involvement in bio-regional planning efforts for the Southern California region address the pressures that are facing sustainable living in the future.

The CDCA Plan Amendment for the Coachella Valley established deliberate steps for the management of threatened and endangered species, air quality and open spaces while also addressing other important quality-of-life issues such as recreation

opportunities and necessary infrastructure support for communities within the planning area. The Forest Plan Revision process is currently tackling similar issues throughout the four southern California National Forests. The decisions proposed through the National Monument Plan provide specific methods for working with partner agencies to ensure that the resources that exist within the National Monument would be identified, protected, and preserved for current and future public enjoyment.

The Agua Caliente Band of Cahuilla Indians recently completed (2002) a Habitat Conservation Plan. Mt. San Jacinto State Park recently completed a General Plan for the park and Anza Borrego Desert State Park is currently completing a General Plan. As more and more private land is dedicated to support housing and urban development, decisions must be made concerning habitats to conserve in order to avoid more species listings under the Endangered Species Act. Decisions are also necessary concerning management of native habitats and open spaces to ensure they are delivering the natural, social, economic and cultural values intended.

3.A.2. Setting

The 271,400 acre Santa Rosa and San Jacinto National Monument encompasses 89,500 acres of Bureau of Land Management lands, 65,000 acres of Forest Service lands, 19,800 acres of Agua Caliente Band of Cahuilla Indians lands, 12,900 acres of California Department of Parks and Recreation lands, 36,400 acres of other State of California agencies lands, and 38,500 acres of private land. The National Monument is located in Southern California, approximately 100 miles east of Los Angeles. The National Monument has a dramatic landscape rising abruptly from below sea level in the valley to the snow-capped San Jacinto Peak at 10,834 feet.

The National Monument ranges from Sonoran Desert to Arctic Alpine, providing exceptionally diverse biological resources. This area provides habitat for the federally and state listed Peninsular Ranges bighorn sheep (*Ovis Canadensis nelsoni*), desert slender salamander (*Batrachoseps aridus*), and migratory birds. The National Monument runs northeast to southwest along the edge of the Coachella Valley, a broad, low elevation valley comprising the westernmost limits of the Sonoran Desert. Nine cities, including the city of Palm Springs, lie within this valley--an area of rapid growth and increasing urbanization. As noted in the Act, the National Monument provides both a "picturesque backdrop" and an abundance of recreational opportunities that are an important regional economic resource for Coachella Valley communities. Several mountain communities, including Idyllwild, provide high elevation access into the National Monument.

The BLM's portion of the National Monument, 89,500 acres in total, occurs at low-lying elevations from below sea level to roughly 2,500 feet. Vegetation ranges from creosote and desert flora to chaparral. This portion of the National Monument interfaces with several communities in the Coachella Valley, including Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, and La Quinta.

The Forest Service manages 65,000 acres within the National Monument. This land is primarily at elevations ranging from 2,000 feet to 7,500 feet. Vegetation ranges from chaparral to a mixed conifer, with moderate to steep slope and deeply dissected canyons. Access to Forest Service lands can be obtained by State Highway 243 and State Highway 74 from Hemet and Palm Desert. Forest Service lands interface with the communities of Pinyon, Pine Cove, Idyllwild and Mountain Center.

The total planning area encompasses approximately 271,400 acres. However, the National Monument RMP will only affect Federal lands as described above. This will be a cooperative planning effort and will encourage collaboration between the BLM, Forest Service, other federal agencies, State, Tribal and local municipalities.

The intensity and variety of multiple uses requested by the public requires a high level of coordination and collaboration with interested constituents and communities. This helps to ensure that both the needs of the public, the multiple use mandate of the BLM and Forest Service, and conservation needs are considered when making decisions about public land management. This planning process is an excellent opportunity to coordinate with all the interested constituents and to minimize land use conflicts on the BLM and Forest Service managed public lands.

The National Monument is a part of the BLM National Landscape Conservation System (NLCS), established in 2000 to help protect some of the nation's most remarkable and rugged landscapes. The system – which includes the all of the agency's National Conservation Areas, National Monuments, wilderness areas, Wilderness Study Areas, Wild and Scenic Rivers, and National Scenic and Historic Trails -- will ensure that future generations will enjoy some of the United States' last, great open spaces. NLCS lands will enable the public to experience the solitude and splendor of these undeveloped landscapes by providing numerous opportunities for exploration and discovery.

3.B. Biological Resources

The elevation of the National Monument ranges from just above sea level up to 10,834 feet. This range of elevations and accompanying differences in temperature, precipitation and other environmental variables are significant factors contributing to the area's remarkable variety of plant and animal species.

Many canyons in the mountains support riparian areas not typical of a desert environment. Streams and seeps also support many palm oases, especially in the Santa Rosa Mountains. Where the water drains into the washes, desert dry wash woodlands result. The alluvial fans associated with the canyon mouths provide still another major land form and distinctive biological community. Another feature contributing to the biological diversity are the strong winds that funnel through the San Gorgonio Pass from the west through areas of sand deposition from the San Gorgonio and Whitewater rivers and create an aeolian dune system. Historically, this dune system occupied much of the center of the valley.

The San Jacinto Mountains are part of the Peninsular Range Province, one of the largest geological units in North America. The Peninsular Range Province begins in Mexico at the terminus of the Baja Peninsula, and runs northwest for approximately 900 miles, ending in the San Jacinto Mountains of Riverside County, California. Within the San Jacinto Mountains, is San Jacinto Peak, world-renowned as the steepest escarpment in North America. The peak rises from 800 to 10,834 feet in less than seven horizontal miles. San Jacinto Peak is not the only peak within the San Jacinto Mountains that exceeds 10,000 feet elevation. Thirteen other peaks rise above the 10,000-foot level including Jean Peak (10,570 feet), Miller Peak (10,400 feet), and Marion Mountain (10,362 feet). This dramatic change in elevation results in diverse and unique vegetation zones through the mountain range.

The elevational profile of the San Jacinto Mountains consists of six vegetation zones that are based primarily on temperature and precipitation. Temperature and precipitation are in turn regulated by elevation and latitudinal location. Due to effects from the Pacific Ocean, the western slopes of the San Jacintos are cooler and receive significantly more moisture, while the eastern side is hotter and drier. Below 4,000 feet on the western side, Coastal Sage Scrub and Valley Grassland dominates. This zone, however, is outside of the National Monument. Also on the western slopes, between 4,000 and 6,000 feet, chaparral is the dominant vegetation. Common chaparral species include chamise, manzanita, and ribbonwood. On both sides of the mountains, montane coniferous forest occurs from roughly 5,500 to 9,000 feet in elevation. Vegetation in this area includes: Jeffery pine, ponderosa pine, incense cedar, and sugar pine. At the uppermost 2,000 feet of the San Jacinto Mountains, limber and lodgepole pine dominate, and is known as the Sup alpine Forest zone. On the eastern side of the San Jacinto Mountains, Creosote Shrub is the main vegetation type up to 3,500 feet. Species include: creosote bush, brittlebush, and barrel cactus. And from 3,500 to 7,000 feet, chaparral and Pinyon-Juniper Woodland reign. Vegetation includes ribbonwood, pinyon pine, manzanita, *Nolina*, and California juniper. Above 7,000 feet on the eastern slopes Montane Coniferous and Sub-alpine Forest occur as they do on the western side.

One unique aspect of the San Jacinto Mountains is its isolation of both the mountain and the province from other mountainous regions. On the western side of the Peninsular Range Province is the Pacific Ocean. Only in southern California does a part of the province have terrestrial connections to other parts of the North American continent. However, the Pacific Ocean acts as a barrier for plants and animal distribution to the west. On the eastern and southern side of the province is the Salton Trough, which includes the Salton Sea and incorporates the largest area of land below sea level on the western hemisphere. This area is also one of the hottest and most arid areas in North America, effectively reducing plant and animal distribution to the east. To the north, the San Jacinto Mountains are separated from the Transverse ranges by the San Geronimo Pass. The result of this “island” isolation is an assemblage of species unique to this region.

Several species of plant and wildlife are restricted in distribution and/or endemic to the San Jacinto Mountains and/or the Peninsular Range Province. However, there are no vertebrate animal species that are found only in the San Jacinto Mountains. There are species such as the granite night lizard (*Xantusia henshawi*) that occur only in the Peninsular Range Province and in the San Jacinto Mountains. The isolation of the San Jacinto Mountains has also led to the evolution of “subspecies” of animals with slightly different characteristics. For example, within the San Jacinto Mountains, the San Diego mountain kingsnake (*Lampropeltis zonata pulchra*) can be found, while on the San Bernardino Mountains (Transverse range), one may find the San Bernardino mountain kingsnake (*Lampropeltis zonata parvirubra*). This subspecies reflects the separation of a once-continuous population of species by geologic land movement during the Pleistocene era (circa 10,000 yrs).

Although, non-native to the area, black bears (*Ursus americanus*) do disperse through the San Jacinto Mountains. Black bears were introduced to the San Bernardino Mountains in 1933 by the California Department of Fish and Game. The introduction was successful and the population has increased, pushing some individual bears into the

surrounding mountains. Black bears have been known to use the San Geronio Pass and Interstate 10 to move southward into the San Jacinto Mountains.

According to Peter Raven, writing in *Terrestrial Vegetation of California*, “California contains the most remarkable assemblage of native plant species in all of temperate and northern North America.” One of the two highest centers of endemism in California for “relict species,” (i.e. those that have persisted from earlier geologic periods in California) is in the northern and western margin of the Colorado Desert, from the Little San Bernardino Mountains, along the east slope of the San Jacinto and Santa Rosa Mountains, the Borrego Valley area, and southward into Baja California.

For a number of reasons, many of these species have been identified by state and federal agencies as needing additional protection to ensure their continued survival. These special status species include nine federally listed endangered species, species designated as sensitive by the BLM and Forest Service in California, as candidate species by the USFWS, and as species of special concern by the USFWS and the California Department of Fish and Game (CDFG). A complete list of threatened and endangered species within the National Monument is provided in Table 3-2. In addition, species common to the National Monument and their descriptions are in Appendix G. BLM and Forest Service strive to ensure that sensitive species do not become candidates for listing in the future. The agencies use recommendations from available recovery plans, research information and data, and other documents on special status species, to establish management prescriptions and guidelines that will facilitate recovery of these species and prevent additional listings.

BLM and Forest Service manage biological resources within the National Monument in conformance with applicable laws, regulation and policies, including the CDCA Plan (1980 as amended) and the Forest Service SBNF Plan (1989). The CDCA Plan (1980 as amended) provides the following objectives for wildlife management:

1. Avoid, mitigate, or compensate for impacts of conflicting uses on wildlife populations and habitats. Promote wildlife populations through habitat enhancement projects so that balanced ecosystems are maintained and wildlife abundance provides for human enjoyment.
2. Develop and implement detailed plans to provide special management for: (a) areas which contain rare or unique habitat, (b) areas with habitat which is sensitive to conflicting uses, (c) areas with habitat which is especially rich in wildlife abundance or diversity, and (d) areas which are good representatives of common habitat types.
3. Manage wildlife species on the Federal and State lists of threatened and endangered species and their habitats so that the continued existence of each is not jeopardized. Stabilize, and where possible, improve populations through management and recovery plans developed and implemented cooperatively with the US Fish and Wildlife Service and the California Department of Fish and Game.
4. Manage wildlife species officially designated as sensitive by the BLM California State director and their habitats so that the potential for Federal or State listing is minimized.
5. Include consideration of crucial habitats of sensitive species in all decisions so that impacts are avoided, mitigated, or compensated.

In addition, Habitat Conservation Objectives (Appendix E), Land Health Standards, and Standards and Guides, and Best Management Practices provide management direction for BLM and Forest Service, helping to ensure that federal action within the National Monument is in conformance with land use plans, regulation and policy.

3.B.1. Natural Communities

Vegetation communities within the National Monument have been placed in eight classifications from the valley – mountain interface to the coniferous forests of the higher elevations. These categories are: (1) sand dunes and sand fields, (2) desert scrub communities, (3) chaparral communities, (4) desert alkali scrub communities, (5) marsh communities, (6) dry wash woodland and mesquite communities, (7) riparian communities, and (8) woodland and forest communities. This classification was based on descriptions of Natural Communities in the Coachella Valley Multiple Species HCP/NCCP (CVAG 2001) which followed *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), with the addition of five new natural community types developed by the Coachella Valley Multiple Species HCP/NCCP to distinguish between among the blowsand communities in the Plan area. These vegetation communities were then used as the basis for the Habitat Conservation Objectives (see Appendix E) in the CDCA Plan Amendment for the Coachella Valley (BLM 2002). Table 3-1 and Figure 5 illustrate the vegetation communities and which special status species are associated with each vegetation type.

Table 3-1 Vegetation Communities and Associated Special Status Species

| Community Type | Associated Special Status Species |
|--------------------------|--|
| Sand Dunes & Sand Fields | Coachella Valley Fringe-toed Lizard Coachella Valley Giant Sandtreader Cricket Coachella Valley Jerusalem Cricket Coachella Valley Milkvetch Coachella Valley Round-tailed Ground Squirrel Casey’s June Beetle Le Conte’s Thrasher |
| Desert scrub communities | Coachella Valley Round-tailed Ground Squirrel Peninsular Ranges Bighorn Sheep Desert Tortoise Le Conte’s Thrasher Coachella Valley Giant Sandtreader Cricket Casey’s June Beetle Coachella Valley Milkvetch |
| Chaparral | Gray Vireo Peninsular Ranges bighorn sheep Desert Tortoise Pratt’s Dark Aurora Blue Butterfly |
| Desert scrub alkali | Le Conte’s Thrasher Crissal Thrasher Coachella Valley Grasshopper Yellow-breasted Chat Yellow Warbler Southwestern Willow Flycatcher Least Bell’s Vireo Summer Tanager |

| | |
|---------------------------------|---|
| Dry wash woodlands and mesquite | Coachella Valley Round-tailed Squirrel Desert Tortoise Peninsular Ranges Bighorn Sheep Crissal Thrasher Le Conte’s Thrasher Coachella Valley Milkvetch Southwestern Willow Flycatcher Yellow Warbler Yellow-breasted Chat Least Bell’s Vireo |
| Riparian | Desert Slender Salamander Desert Tortoise Least Bell’s Vireo Yellow Warbler Yellow-breasted Chat Southwestern Willow Flycatcher Summer Tanager Crissal Thrasher Southern Yellow Bat Peninsular Ranges Bighorn Sheep |
| Woodland and forest | Peninsular Ranges Bighorn Sheep Gray Vireo Desert Tortoise Pratt’s Aurora Blue Butterfly |

Descriptions of Natural Communities

Sand Dunes and Sand Fields

This vegetative category combines the following six natural communities into one based on similarities of community type. These communities are found along the northwestern edge of the National Monument in the vicinity of Snow Creek and Fingal’s Finger. One thousand three hundred twenty four acres of this community exists within the National Monument boundary. (Figure 5)

Active desert dunes – these are essentially barren expanses of actively moving sand whose size and shape are determined by abiotic site factors rather than by stabilizing vegetation.

Active desert sand fields – these are areas of active sand movement, with little or no vegetation where accumulated sand is not of sufficient depth to form classic formations that characterize dune systems.

Active shielded desert dunes - desert sand fields – these are desert sand accumulations lacking dune formations and characterized by irregular deposition of sand materials such that sand accumulations are regularly blown off the habitat area.

Stabilized and partially stabilized desert dunes – these are dune sand accumulations that are stabilized or partially stabilized by evergreen and/or deciduous shrubs, scattered low annuals and perennial grasses.

Stabilized shielded desert sand fields – similar to Stabilized and partially stabilized desert sand field except that sand source and sand transport systems which would supply sand to the sand fields have been interrupted or shielded.

Desert Scrub Communities – this community type combines six communities into a single, broad category. The combination is based on similarities of community type. Desert Scrub Communities cover 164,041 acres of the National Monument. (Figure 5)

Sonoran creosote bush scrub – Sonoran creosote bush scrub is the most widespread vegetation type in the Colorado Desert. It is dominated by creosote bush (*Larrea tridentate*). It characterizes the vast intermountain bajadas, reaching greatest development on coarse, well-drained soils. The co-dominant species in the community is burrobrush, *Ambrosia dumosa*, a much shorter shrub.

Sonoran mixed woody and succulent scrub – This community is similar to creosote bush scrub but includes a dominance of cacti and other stem succulents and is more varied and usually with a higher plant density. It is found on the alluvial fans of the Santa Rosa Mountains.

Chaparral Communities - there are four chaparral communities that occur within the National Monument. These communities cover 46,124 acres within the National Monument. (Figure 5)

Chamise chaparral – one of the most common chaparral types in California and overwhelmingly dominated by chamise (*Adenostoma fasciculatum*). It is adapted to repeated fires as it sprouts readily from burned stumps. Mature stands are densely interwoven with very little herbaceous understory or litter. This is a common community on the western slopes of the San Jacinto and Santa Rosa Mountains.

Redshank chaparral – similar to chamise chaparral, but typically taller and somewhat more open, often forming nearly pure strands of redshank (*Adenostoma sparsifolium*). Redshank chaparral is found in the San Jacinto and Santa Rosa Mountains. In a gap analysis of the vegetation of the Peninsular Ranges, California, Davis et al. (1995) listed redshank chaparral as a natural community considered to be at risk; this ranking may be because this community is not widely distributed in California and occurs in areas of increasing pressure from urbanization.

Interior live oak chaparral – This community occurs as a dense, tall chaparral dominated by interior live oak (*Quercus wislizenii*) and scrub oak (*Q. berberidifolia*). Other associated species include chaparral whitethorn (*Ceanothus leucodermis*), birchleaf mountain mahogany (*Cercocarpus betuloides*), coffeeberry (*Rhamnus californica*), and hollyleaf redberry (*Rhamnus ilicifolia*). This chaparral is fairly mesic. This community is found within the National Monument.

Semi-desert chaparral – this community consists mainly of woody evergreen shrubs and is more open than other chaparrals. Some of the dominant plant species include California juniper (*Juniperus californica*), California buckwheat, and *Opuntia* cactus species. Other associated species include manzanita (*Arctostaphylos* spp.), *Ceanothus* spp., sugar bush (*Rhus ovata*), and scrub oak. This community tends to occur on rockier soils and recently burned sites. This community is distributed on the interior slopes of the Peninsular Ranges and is most common between 2,000 and 5,000 feet elevation in the San Jacinto and Santa Rosa Mountains.

Riparian and Desert Fan Palm Communities – there are four riparian communities and the desert fan palm oasis communities that occur within the National Monument. Riparian areas are considered to be at risk throughout southern California. Riparian communities cover 2,327 acres within the National Monument. (Figure 5)

Southern arroyo willow riparian forest – this community consists of streamside vegetation dominated by arroyo willow (*Salix lasiolepis*), often forming dense thickets. This community is characterized by a continuous canopy with typically sparse to non-existent shrub and herb layer (Sawyer and Keeler-Wolf 1995). These

riparian forests are seasonally flooded, but water is present year round. This community occurs within the National Monument near Snow Creek and Fingal's Finger.

Southern sycamore-alder riparian woodland – this community consists of a tall, open, broad-leaved, winter deciduous streamside woodland with sycamore (*Platanus racemosa*) and white alder (*Alnus rhombifolia*) as the dominant trees. Stands seldom form closed canopies. This community occurs along rocky streambeds subject to occasional high intensity flooding. White alder is restricted to perennial streams, while sycamore can occur in intermittent streams. This community type occurs within the National Monument in Snow Creek, Blaisdell Canyon, and the west fork of Palm Canyon. It also occurs in Tahquitz Canyon, Andreas Canyon, Murray Canyon, and Tachevah Canyon.

Sonoran cottonwood-willow riparian forest – this community consists of a winter-deciduous, broad-leaved streamside forest dominated by Fremont cottonwood (*Populus fremontii*), with a dense understory of willow species (*Salix exigua* and *S. lasiolepis*). This community is associated with deep, well-watered loamy alluvial soils along the near-channel floodplains of perennial desert rivers. Within the National Monument, this community type occurs in Chino Canyon.

Desert fan palm oasis woodland – this community is composed of open to dense groves dominated by native desert fan palms (*Washingtonia filifera*). The understory is sparse in dense groves where the ground is mulched by fallen fronds. Associated species include honey mesquite, arrowweed, and perennial grasses such as deer grass (*Muhlenbergia rigens*). *Washingtonia* is a relict species and this community is restricted to areas where available water in and around the Salton Basin. Fan palm oases occur within the National Monument in the Santa Rosa and San Jacinto Mountain on the west side.

Desert dry wash woodland and Mesquite Communities – there are two general habitat types included in this description. This community covers 2,235 acres in the National Monument. (Figure 5)

Mesquite bosque – This community is an open to fairly dense, drought-deciduous thorn forest dominated by screwbean mesquite (*Prosopis pubescens*) with open, park-like interiors maintained by frequent floods and/or fire. It occurs in dry washes. The understory is sparse but may include various species of salt bush (*Atriplex* spp.). It is unlikely that this community type occurs within the National Monument.

Desert dry wash woodland – this community is an open to dense, drought-deciduous, microphyllous thorn scrub woodland, dominated by any of several members of the bean family including palo verde (*Cercidium floridum*), ironwood (*Olneya tesota*), and smoke tree (*Psoralea argyrea*). Associated species include desert lavender (*Hyptis emoryi*), cheesebush (*Hymenoclea salsola*), catclaw acacia (*Acacia greggii*), and desert willow. It occurs in washes subject to intermittent flooding, but without perennial water. These washes are associated with canyon mouths and alluvial fans in the Santa Rosa Mountains.

Woodland and forest communities – The woodland and forest communities cover 54,808 acres within the National Monument and include Redshank Chaparral, Peninsular Juniper Woodland and Scrub, Black Oak Forest, Coulter Pine Forest, Westside Ponderosa Pine Forest, Sierran Coniferous Forest, Jeffery Pine and Jeffery Pine-Fir Forest, and Southern California Subalpine Forest. (Figure 5)

Redshank Chaparral – Consists of redshank (*Adenostoma sparsifolium*) an open shrub or small tree with multiple branches from the base covered with rust-red,

shaggy bark. This is found in four areas of southern California and ranges in elevation from 600 to 1800 meters.

Peninsular Juniper Woodland and Scrub – This is a somewhat dense woodland dominated by California juniper (*Juniperus californiaca*) rather than pinyon pine. This community occurs on the desert slopes of the San Jacinto and Santa Rosa Mountains at elevations between 3,500 and 5,500 feet.

Black Oak Forest – This is a persistent climax forest dominated by black oak, with scattered emergent ponderosa or Jeffrey pine. Most stands are even-aged, reflecting past disturbances.

Coutler Pine Forest – This is an open forest of scattered Coulter pines and black oak with an understory of shrubs typically associated with Upper Sonoran Mixed Chaparral. Some stands are dense enough to suppress the shrubby layer.

Westside Ponderosa Pine Forest – This is an open park-like forest of coniferous evergreens to 70 meters tall, dominated by ponderosa pine. The understory is typically sparse, consisting of scattered chaparral shrubs and young trees.

Sierran Mixed Coniferous Forest – This is similar to Westside Ponderosa Pine Forest, but denser with the crowns often touching, and often slightly taller (to 75 meters), and with several dominant species, including white fir, ponderosa pine, Jeffrey pine, and sugar pine.

Jeffrey Pine Forest – This community is a tall, open forest dominated by Jeffrey pine, with a sparse understory of species from the Mixed Montane Chaparral or Sagebrush Scrub communities. It is similar in aspect to the Westside Ponderosa Pine forest and is found in the San Jacinto wilderness.

Jeffrey Pine-Fir Forest – This is similar to Sierran Mixed Coniferous Forest, but not quite so tall (up to 60 meters). The understory is open, primarily of scattered Mixed Montane Chaparral and small trees and it occurs in the Santa Rosa mountains. Dominant species are white fir and Jeffrey pine.

Southern California Subalpine Forest – This is an open or clumped timberline forest at San Jacinto Peak dominated by lodgepole pine and limber pine. The understory is typically very sparse.

Invasive Weeds and Pests

Noxious weeds are a serious problem in the western United States. Estimates of the rapid spread of weeds in the west include 2,300 acres per day on BLM-administered lands and 4,600 on all western public lands. For example, many weed species like perennial pepperweed (tall whitetop), purple loosestrife, yellow star thistle, hoary cress (short whitetop), leafy spurge, spotted knapweed, diffuse knapweed, and many others are non-native to California and the United States and have no natural enemies to keep their populations in balance. As a result, these undesirable weeds rapidly invade healthy ecosystems, displace native vegetation, reduce species diversity, degrade wildlife habitat and special areas such as wilderness, wilderness study areas, areas of critical environmental concern, National Conservation Areas, and National Monuments. Noxious weed invasions reduce rehabilitation and landscape restoration successes, reduce domestic and wildlife grazing capacity, increase soil erosion and stream sedimentation, and threaten federally protected plants and animals.

Exotic pests, such as brown-headed cowbirds, non-native ants, African frogs, tilapia, bullfrogs, and crayfish, all contribute to the decline of native wildlife species. These species tend to out-compete the native fauna for scarce resources and are often aggressive predators of the native wildlife species. *Solenopsis invicta*, the Red Imported Fire Ant, is an invasive species that has caused millions of dollars of damage throughout

the Southern United States since it arrived in the 1960s. This invasive ant has been found in the Coachella Valley and is a threat to native populations of ants. Domesticated animals, such as cats and dogs, can be very destructive to the native fauna. Studies have shown that natural areas along urban interfaces where cats and dogs are allowed to run wild, result in wildlife sinks (high mortality areas for native wildlife).

In Palm Canyon, the U.S. Forest Service is attempting to minimize the growth of the feral dog population. Feral and wild dogs pose a threat to the residents of the nearby community of Pinyon, and to visitors of Palm Canyon. Additionally, the feral population may be a potential predation threat to bighorn sheep that inhabit the area. The U.S. Forest Service is attempting to control the release of feral animals within Palm Canyon through a series of educational actions. Currently, the U.S. Forest Service is installing signs indicating the penalties of dumping domesticated dogs or cats in the area. The next step in this plan is to install interpretive signs that explain the reasons why release of unwanted animals so destructive to wildlife resources, recreation and forest health.

The BLM and Forest Service currently have invasive weed programs underway within the National Monument. BLM and Forest Service work with local cities and state agencies on tamarisk eradication projects to increase efficiency of eradication efforts. The NEPA process allows Federal agencies to evaluate the degree of threat from noxious weeds as well as evaluate the treatment options available. The Forest Service Management Strategy is guided by the Noxious Weed Management Strategy, Pacific Southwest Region, and The Guide to Noxious Weed Prevention Practices, July 5, 2001, which encourages coordination and collaboration between the Forest Service, other Federal agencies, State, local, and tribal governments, and the research community to promote increased effectiveness of noxious weed management. The Forest Service goals for management of noxious weeds in Recreation, Wilderness and Special Management Areas are: 1) To prevent new weed infestations and the spread of existing weeds, avoid or remove sources of weed seed and propagules; and 2) Improve the effectiveness of prevention practices through weed awareness and education. The BLM National Office is currently preparing a national programmatic environmental impact statement (EIS) to update and replace analyses contained in four existing EISs completed by the agency from 1986 – 1992 for thirteen western states, and to analyze vegetation treatments in four additional western states and Alaska. Under the proposed action, up to 6 million acres would be treated annually using a variety of methods including, prescribed fire, herbicides and biological control agents, and mechanical and manual extraction. Pending completion of this EIS, BLM conducts tamarisk eradication projects within the National Monument under existing tamarisk eradication programmatic environmental assessment. The proposed National EIS will supplement and streamline the NEPA process but will replace local NEPA analyses and section 7 ESA consultation.

Wildlife Management

Cooperative management with Department of Fish and Game. Both the BLM and Forest Service have entered into Memorandum of Understanding (MOU) with the California Department of Fish and Game to strengthen, at all levels of the two agencies, the cooperative approach to management of fish, wildlife, plants, and their habitats, on NFS lands. These Memoranda acknowledge that conservation of these resources requires close cooperation and coordination between the two agencies, each having specified rights and responsibilities, and it is the intent of the parties to use their knowledge and resources towards conservation of fish, wildlife, plants, and their habitats.

Management of Wildlife Water Sources

BLM and Forest Service manage wildlife water sources to help ensure water availability for animals within the National Monument. A number of tools are used to assess condition of riparian areas including Proper Functioning Condition Assessment (PFC) and Best Management Practices (BMP). When necessary, BLM and Forest Service repair guzzlers, remove tamarisk from areas with natural tinajas, and may provide water on an emergency basis when needed.

Special Status Species

Special Status Species include those endemic to the Plan area, Federal and State species of special concern, and State and Federal listed threatened and endangered species. Habitat models developed for the Coachella Valley Multiple Species Habitat Conservation Plan and Natural Communities Conservation Plan are referenced where available. A list of species known to occur within the National Monument and species accounts are provided in Appendix G.

Endemic Species

There are five species endemic to the Plan area. Endemic species are those that are restricted to a small geographic area (50,000 km² is a commonly used cutoff (Noss et al. 1997)), often with very few occurrences within that range. For this reason, these species depend entirely on a single area for survival, and are therefore often more vulnerable. These species are not listed as threatened or endangered but are species of concern. The following species were identified as endemic to the Plan area and accounts are provided in Appendix G.

Casey's June beetle, *Dinacoma caseyi*
Coachella Valley giant sand treader cricket, *Macrobaenetes valgum*
Coachella Valley Jerusalem cricket, *Stenopelmatus cahuilensis*
Coachella Valley Round-tailed ground squirrel, *Spermophilus tereticaudus chlorus*
Pratt's dark aurora blue butterfly, *Euphilotes enoptes cryptorufes*

Species of Special Concern

In addition to endemic species, there are thirty species of special concern, including BLM sensitive species, Federal and State species of special concern that occur within the National Monument. BLM and Forest Service guidance directs the agencies to manage these species to help ensure that they are not listed in the future. Species accounts for the following species are provided in Appendix G.

Black Swift, *Cypseloides nigr*
Black-tailed gnatcatcher, *Polioptila melanura*
Burrowing owl, *Speotyto cunicularia*
California Spotted Owl, *Strix occidentalis occidentalis*
Cooper's Hawk, *Accipiter cooperii*
Coastal Rosy Boa, *Lichanura trivirgata rosafusca*
Crissal Thrasher, *Toxostoma crissali*
Gray Vireo, *Vireo vicinior*
Hammond's two-striped Garter Snake, *Thamnophis hammondi hammondi*
Large-blotched Ensatina, *Ensatina eschscholtzii klauberi*
Le Conte's Thrasher, *Toxostoma lecontei*
Lewis' Woodpecker, *Melanerpes lewis*

Long-eared Owl, *Asio otus*
 Mountain lion, *Puma concolor*
 Northern Goshawk, *Accipiter gentiles*
 Palm Springs Pocket Mouse, *Perognathus longimembris bangsi*
 Prairie Falcon, *Falco mexicanus*
 Purple Martin, *Progne subis*
 San Bernardino Flying Squirrel, *Glaucomys sabrinus californicus*
 San Bernardino Ringneck Snake, *Diadophis punctatus modestus*
 San Diego Horned Lizard, *Phrynosoma coronatum blainvillii*
 San Diego Mountain Kingsnake, *Lampropeltis zonata pulchra*
 Silvery Legless Lizard, *Aniella pulchra pulchra*
 Sharp-shinned hawk, *Accipiter striatus*
 Southern Yellow Bat, *Lasiurus ega (xanthinus)*
 Summer Tanager, *Piranga rubra cooperi*
 Swainson's Thrush, *Catharus ustulatus*
 Turkey Vulture, *Cathartes aura*
 White-tailed Kite, *Elanus leucurus*
 Wilson's Warbler, *Wilsonia pusilla*
 Yellow-breasted Chat, *Icteria virens*
 Yellow Warbler, *Dendroica petechia brewsteri*

Federal and State Listed Threatened and Endangered Species

There are nine federal and state listed threatened and endangered species within the National Monument (Table 3-2). These species occupy all types of habitat from bluffs in the Windy Point area to the mixed conifer forest of the higher elevations.

Table 3-2: Special status species within the Santa Rosa and San Jacinto Mountains National Monument

| COMMON NAME | SCIENTIFIC NAME | STATUS |
|-------------------------------------|---|---------|
| Coachella Valley Fringe-toed Lizard | <i>Uma inornata</i> | FT, SE |
| Coachella Valley Milk Vetch | <i>Astragalus lentiginosus coachellae</i> | FE |
| Desert Slender Salamander | <i>Batrachoseps aridus</i> | FE, SE |
| Desert Tortoise | <i>Xerobates (or Gopherus) agassizii</i> | FT, ST, |
| Least Bell's Vireo | <i>Vireo bellii pusillus</i> | FE, SE, |
| Mountain Yellow-Legged Frog | <i>Rana muscosa</i> | FE, SSC |
| Peninsular Ranges Bighorn Sheep | <i>Ovis canadensis nelsoni</i> | FE, ST |
| Southern Rubber Boa | <i>Charina bottae umbratica</i> | ST, SP |
| Southwestern Willow Flycatcher | <i>Empidonax traillii extimus</i> | FE, SE |

FE = Federal Endangered Species
FT = Federal Threatened Species

ST = State Threatened
SE = State Endangered Species
SSC = Species of Special Concern

Species Accounts – Federal and State Threatened and Endangered

Species accounts for nine Federal and State threatened and endangered species are provided below. Species accounts for endemic species, sensitive species, and those proposed for listing under the State or Federal Endangered Species Acts are provided in Appendix G.

Coachella Valley Fringe-toed lizard (*Uma inornata* – Federal Threatened, State Endangered) The Coachella Valley fringe-toed lizard is restricted to the Coachella Valley and is limited to the area around between Fingal's Finger and Windy Point at the northwest end of the San Jacinto Mountains. It is associated with Aeolian sand deposits and has adapted morphologically and behaviorally (Heifetz 1941, Stebbins 1944, Norris 1958). It occurs wherever there are large patches of Aeolian sand (England and Nelson 1976, LaPre and Cornett 1981, Turner et al. 1981, England 1983, Barrows 1997). The Coachella Valley fringe-toed lizard was listed as threatened and critical habitat designated on September 25, 1980. The majority of designated critical habitat and preserves for this species occur outside the boundaries of the National Monument. However, the area between Fingal's Finger and Windy Point provides important habitat. Management for this species is focused on maintaining sand dune systems in the Coachella Valley, habitat restoration, eliminating perches for avian predators, and reducing threats.

Coachella Valley Milkvetch (*Astragalus lentiginosus* var. *coachellae* – Federal Endangered)

The Coachella Valley milkvetch occurs in dunes and sandy flats, along the disturbed margins of sandy washes, and in sandy soils along roadsides where they occur adjacent to existing sand dunes. Within the sand dunes and sand fields, this milkvetch tends to occur in the coarser sands at the margins of dunes, not in the most active blow-sand areas. As this species is strongly affiliated with sandy substrates, it may occur in localized pockets where sand has been deposited by wind or by active washes. It may also occur in sandy substrates in creosote bush scrub, not directly associated with sand dune habitats. In the Plan area, populations are known from the Snow Creek area (in the sandy areas on either side of Snow Creek Road east toward Windy Point. Extensive dune systems, now much reduced from what once occurred, at the base of the Santa Rosa Mountains in what are now the cities of Palm Springs, Cathedral City, Rancho Mirage, Palm Desert, Indian Wells, and La Quinta, provided suitable habitat for the Coachella Valley milkvetch. This federally-listed endangered species is an erect winter annual, or short-lived perennial, which blooms from February to May, producing pink to deep magenta-colored flowers. It is distinguished in part from other milkvetches by its strongly inflated, two-chambered, mottled pods. These pods, when dried, fall to the ground and are blown along the dunes. In good years, 100's to 1000's of individuals have been described in a population, but often reports are of less than 20 plants. Specific data on population size and dynamics are not available for this species. The factors controlling population size through effects on seed germination, seedling establishment, and plant longevity have not been studied, but presumably involve moisture availability and soil and air temperatures (Sanders 1995).

Desert slender salamander (*Batrachoseps aridus* - Federal and State Endangered)

B. aridus is known from only two canyons in the Santa Rosa Mountains, the entire habitat comprising perhaps several acres. In addition to the population at Hidden Palms Oasis, an additional population of slender salamanders was found in the vicinity of Guadalupe Creek, in a canyon separated from Hidden Palms by 4.5 miles of continuous desert (Duncan and Esque 1986). Comparative genetic analysis of the two populations has not been completed but preliminary results have confirmed that Guadalupe Creek is a disjunct population of *B. aridus* (K. Nicol, pers. comm.).

There is no indication that the geographic range of the species has declined historically. The current range has probably changed little since shortly after the last pluvial period,

about 10 million years ago. The habitat of *B. aridus* is a steep-walled desert canyon with permanent water seeping from fractured bedrock. The species uses cracks in the bedrock and sheet-like limestone deposits for shelter from desiccation and temperature extremes. The combination of permanent water, shade, and availability of retreat sites appears important to the distribution of the species. The area receives only 8 inches of rainfall annually (M. Fisher, pers. comm.), and the dry hillsides adjacent to the seeps are uninhabitable by the salamander.

Desert Tortoise (*Gopherus agassizii* – Federal Threatened, State Endangered)

The desert tortoise is widely distributed through an exceptionally broad array of habitats that span 1,100 kilometers from northern Sinaloa State, Mexico where it occupies deciduous forest, across the Sonoran (including the Colorado Desert Subdivision in California) and Mojave Deserts, to the edge of the Colorado Plateau in arid southwestern Utah (Ernst et al., 1994; Germano, 1994). Populations north and west of the Colorado River were listed as threatened in April 1990 under the Federal ESA. The species is listed by California as a threatened species, and it is the official State reptile. In California, the tortoise is naturally absent from most areas west of the Salton Sea (Luckenbach, 1982). Within the Santa Rosa and San Jacinto Mountains, desert tortoise may be found below 4000 feet elevation in desert alluvial fans, washes, canyon bottoms, rocky hillsides and other steep terrain up to 60 degrees in slope. Populations north and west of the Colorado River were listed as threatened in April of 1990 by the U.S. Fish and Wildlife Service and the state of California.

Least Bell's Vireo (*Vireo bellii pusillus*, Federal and State Endangered)

The least Bell's vireo is a small grey, migratory songbird that inhabits structurally diverse riparian woodlands and riverine systems. It is federally and state listed as endangered. This species was once considered one of the most abundant birds in the state of California. In the last several decades it has undergone a precipitous decline in numbers, a decline attributed to the loss and degradation of riparian habitat throughout its range, as well as to the expansion in range of the brown-headed cowbird (*Molothrus ater*), a nest parasite. Within California, least Bell's vireos are currently restricted in their distribution to eight southern counties, with a majority occurring in San Diego county. Several observations of nesting pairs of least Bell's vireo have been documented in willow riparian habitats of several canyons in the Santa Rosa Mountains. Preserving riparian habitats within the Santa Rosa Mountains is an important component in the reestablishment of this species into its historic range.

Mountain Yellow-legged frog (*Rana muscosa*, Federal Endangered) A truly mountain species, the mountain yellow legged frog occurs primarily at elevations above 1800 m (5940 ft). Within the National Monument, isolated populations exist in the San Jacinto Mountains. In southern California, populations are restricted to streams in ponderosa pine, montane hardwood-conifer, and montane riparian types. Mountain yellow-legged frogs feed primarily on aquatic and terrestrial invertebrates and favor terrestrial insects. Tadpoles graze on algae and diatoms along rocky bottoms in shallow water of streams. Frogs usually crouch on rocks or clumps of grass within a few jumps of water. When disturbed, they dive into the water, taking refuge under rocks or resting exposed on the bottom. Frogs may bury themselves in bottom sediments and during dry conditions, many enter rodent burrows near water. Eggs are usually laid in shallow water attached to gravel or rocks. Reproduction does not take place until streams are clear of ice. This highly aquatic species is always found within a few feet of water. Tadpoles may require two over-wintering periods to complete their aquatic development. Terrestrial individuals

are primarily diurnal. During winter, adults apparently hibernate beneath ice-covered streams. Terrestrial hibernation has not been reported. In southern California habitats, some individuals aestivate during especially dry periods of late summer (Mullally 1959). Typical home ranges for this species is thought to be less than 10 meters in the longest dimension. Occasional movements up to 50 meters may be associated with habitat deterioration, especially drying. Breeding and egg-laying at higher elevations usually occurs from March to May, depending on local conditions. Round cluster of up to 500 eggs are deposited in shallow water and attached to gravel or submerged rocks. Adults and tadpoles are commonly preyed upon by garter snakes.

Peninsular Range Bighorn Sheep (*Ovis canadensis nelsoni*, Federal Endangered, State Threatened) The Peninsular Ranges population of desert bighorn sheep is a distinct population isolated from adjacent populations by urbanization and interstate highways. It was listed as an endangered distinct vertebrate population segment by the USFWS on March 18, 1998. During the past 26 years, the population has declined dramatically from about 1,100 animals to as few as 300 sheep. Overall, during 1984 – 1990, bighorn sheep populations in the Santa Rosa and San Jacinto Mountains declined 69% (Bighorn Institute 2000). This decline has been attributed to a variety of causes, including disease, automobile collisions, mountain lion predation, exotic plant invasion, toxic plant ingestion, competition with cattle, habitat loss, degradation and fragmentation, and recreational disturbance. During 1992-1998, mountain lion predation accounted for 69% of bighorn mortality in the Peninsular Ranges, accounting for 50-100% of all mortality annually (Hayes et al. 2000). Preliminary results from an on-going lamb mortality study reveal that 56% of lamb mortality is attributed to predation and 89% of all mortality occurred within 300 meters of the urban-wildland interface. Disease is thought to have played a pivotal role in the decline of bighorn sheep during 1983-1994. However, the cause-effect relationship relative to disease in the Peninsular Ranges has not been clearly established (USFWS 2000). Global climate change may also play a role in the decline of bighorn sheep populations, range-wide. Researchers in Wyoming are investigating the interactions of drought and micronutrients such as selenium, on reproductive success of bighorn sheep. Preliminary results indicate that global warming may be influencing reproductive success of bighorn sheep in Wyoming. There may be implications for other bighorn sheep ranges, such as the Peninsular Ranges, which are in the path of air pollution coming from San Diego and the greater Los Angeles area. In recent years, the bighorn population in the Peninsular Ranges has stabilized and appears to be increasing. From 1990 to 1995, the population was stable but in 1996, ewe survival was low and the population declined again (Bighorn Institute 2000). During 1997 – 2001, bighorn sheep populations in the Santa Rosa Mountains increased an average of 15.3%.

Current management activities by BLM have resulted in reduced human disturbance (voluntary trail avoidance program described in this Chapter in Section 3.D – Recreation), reduced harassment and impacts from domestic dogs by closing all public lands east of Palm Canyon to dogs (except for 3 specific areas), disclosure of the impacts of research and monitoring on bighorn sheep (preparation of a programmatic environmental assessment in October 2001, examining the effects of research and monitoring and providing a mechanism for issuing research permits). BLM is committed to continuing efforts to reduce all human impacts on bighorn sheep, including research and monitoring. Current research techniques, including GPS collars, remote data collection, and monitoring enable researchers to collect data while minimizing impacts on sheep. BLM continues to work with state and federal agencies, universities, and

private researchers to seek alternative, non-invasive research and monitoring techniques. Research and monitoring permit requests are evaluated using the existing Decision Record for the abovementioned environmental assessment, with attention to implications of research that promote recovery for bighorn sheep. In addition, per Public Law 106-351 – October 24, 2000, BLM-managed public lands in the Santa Rosa and San Jacinto Mountains National Monument are withdrawn from mineral entry. The need for utility corridors or communication sites will be set forth in the Resource Management Plan for the National Monument.

Through the BLM's CDCA Plan Amendment, long-term management direction for protection and recovery of Peninsular Ranges bighorn sheep has been established (Appendix F). The Bighorn Sheep Recovery Plan, completed in October 2000, provides recommendations for developing and assessing conservation and management activities in order to achieve recovery of the bighorn.

Total acres of essential habitat for the Peninsular Ranges bighorn sheep are 782,049 acres. Of that, 187,685 acres occur within the National Monument. (Figure 6)

Southern Rubber Boa (*Charina bottae umbratica*, State Threatened)

The rubber boa is uncommon to common in suitable habitats. This species occurs within the National Monument in montane, coniferous habitats above 6,000 feet elevation. This subspecies of rubber boa is geographically isolated in the San Jacinto and San Bernardino Mountains (Erwin 1974). Food consists primarily of small mammals and lizards (Stebbins 1954) and this species may occasionally take smaller snakes (Linder 1963) and *Ensatina* (Macey 1983). The rubber boa is an extremely secretive snake and seeks cover in rotting logs, pieces of bark, boards, rocks and other surface debris. It burrows through loose soil or decaying vegetation. It is known to occasionally climb. Young are born in loose, well-aerated soils, under surface objects or within rotting logs. This species is primarily crepuscular during warmer periods of spring, summer, and fall but is occasionally nocturnal and diurnal. They are inactive during cooler periods. Breeding occurs from April to June. Young are born alive from late summer (Erwin 1964) to late November (Hudson 1957). The number of young born ranges from two to eight (Stebbins 1972). Because of its secretive behavior this snake is probably not subject to heavy predation. Adults and young may occasionally be taken by hawks and owls or by predatory mammals such as skunks and raccoons. Potentially competes for food resources with the California mountain kingsnake where their ranges overlap.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*, Federal and State

Endangered) The southwestern willow flycatcher is a small brownish-olive colored bird with a triangular head and orange lower mandible. This bird is restricted to dense riparian woodlands and forests along the river and stream systems of southern California. This flycatcher can be found at sites where a dense growth of willows (*Salix* sp.), *Baccharis*, arrowweed (*Pluchea* sp.), or other plants occurs in thickets. These thickets are often associated with a scattered overstory of cottonwood (*Populus fremontii*) and other riparian trees. This species has also been found nesting in southern California in relatively narrow bands of riparian habitat and can utilize extremely small remnant riparian areas (one medium size willow tree) during migration (Theresa Newkirk, pers. comm.). Southwestern willow flycatchers have been observed breeding on Forest Service land within the National Monument. Suitable breeding habitat is present in a number of locations where riparian habitat exists, in Chino Canyon, Andreas, Murray, Palm Canyons and other riparian areas within the National Monument.

Southwestern willow flycatchers also migrate through the Plan area en route to other breeding areas. In migration, they may use desert fan palm oasis woodland, mesquite hummocks, mesquite bosque, arrow weed scrub, desert dry wash woodland, southern sycamore-alder riparian woodland, Sonoran cottonwood-willow riparian forest, and southern arroyo willow riparian forest and are believed to use stopover habitat in desert washes on BLM lands in the lower elevations of the National Monument.

3.B.2. Collection of Biological Resources

Plant Collection

Casual collecting of biological resources is allowed under current management plans for both BLM and the Forest Service. The CDCA Plan (1980 as amended) contains provisions for issuing permits for plant collecting, subject to case-by-case analysis of the impacts of such activities. Collectors are required to obtain additional permits from the USFWS and/or the State of California to collect threatened or endangered species. Plant collection for commercial uses may require additional permitting or payment of a fee. Sensitive plant species may be collected, subject to completion of environmental assessment of the impacts of such collections. The Forest Service policy states that forest products used for commercial purposes will be sold by permit at a District Ranger Office. The Forest Service issues free permits for plant collections for education, research, or personal use. Plant collections may be permitted for individuals or groups for all plants except for sensitive and Federally listed species. Requests may be made by telephone, e-mail, or letter. Collection of Federally and State listed species require an additional permit from the USFWS and the California Department of Fish and Game. Sensitive plant species may be collected, subject to completion of environmental assessment of the impacts of such collections. This environmental assessment must be completed by the Forest Botanist and approved by the Regional Forester. Sensitive plant lists are updated every two years.

Animal Collection

Collection of animals may be authorized by BLM and Forest Service under current management plans (BLM CDCA Plan, 1980 as amended and Forest Service SBNF Plan 1989). Both agencies may issue letters of authorization for insect collection on Federal lands. The State of California does not require permits to collect insects. However, vertebrate species require additional permits from California Department of Fish and Game and for Federally listed species, requires additional permit from USFWS.

3.C. Cultural Resources and Native American Concerns

3.C.1. Prehistoric and Historic Overview

The Santa Rosa and San Jacinto Mountains are located in a region that was inhabited in late prehistoric and early historic times by the Cahuilla Indians, members of the Shoshonean linguistic family. Cahuilla villages were placed throughout the mountain and valley areas stretching across what are now the communities of Riverside, Banning, Palm Springs, Indio, Borrego Springs, Warner Hot Springs, Anza, San Jacinto, and Hemet (Bean 1972, 1978).

Much more is known about the archeology of the Coachella Valley to the east of the National Monument and the cismontane valleys to the west than is known about the National Monument region itself. Extensive excavations for the Eastside Reservoir Project in the Domenigoni Valley southwest of Hemet have provided evidence of human occupation extending back beyond 7,000 years B.P. (Before Present).

Scattered throughout the Coachella Valley area are sites that document the existence of a large population whose subsistence activities were centered on Lake Cahuilla, a large freshwater lake formed by deltaic alterations in the course of the Colorado River. The majority of these sites date to the Late Prehistoric Period: roughly the past 1000 years. There is some evidence to suggest earlier occupation of the region, including the National Monument. Recently excavated sites in the Coachella Valley have contained artifacts characteristic of earlier occupations. Other sites that provide evidence of Archaic Period occupation in the region include Indian Hill Rockshelter, in Anza Borrego, and Tahquitz Canyon, Palm Springs. Late Prehistoric sites typically contain ceramics and Desert Side-Notched or Cottonwood Triangular arrow points. Ceramics and the bow and arrow were introduced into the Lower Colorado River region approximately 1500 years ago. The last stands of Ancient Lake Cahuilla occurred between ca. A.D. 900 and A.D. 1500 (Wilke 1978), and perhaps as recently as A.D. 1650 (Schaefer 1994). The groups living along the shores of Lake Cahuilla were the ancestors of the present-day Cahuilla (Wilke 1978). The Lake had a high water level at 42 feet (14 m) above sea level and created an extensive resource-rich shoreline. Marshlands and embayments occurred along its northwestern and northeastern shores. Large sand dunes and bars formed and were used as occupation sites. The Cahuilla constructed stone weirs that served as fish traps in a variety of settings along the west and northwest shores of Lake Cahuilla. These features are still visible in a few locations where development along the shoreline has not destroyed them.

The final desiccation of the lake led to a change in settlement patterns, the extent and form of which is not fully understood (Wilke 1978, Weide 1974, Schaefer 1994). Some Cahuilla groups remained in the desert while others apparently shifted their base of occupation into the nearby Santa Rosa and San Jacinto Mountains.

Prior to historic contact, the Cahuilla were primarily hunters and gatherers of wild plant foods and lived in permanent villages with satellite camps spread throughout their territory (Kroeber 1925). Ethnographic literature indicates that the gathering of plants provided the Cahuilla with the bulk of their food resources (Barrows 1900; Bean and Saubel 1972). Hunting was probably most important during times when plant foods were scarce, such as winter. Food resources included acorns, agave, pinyon, greens, wild fruits and bulbs, mesquite pods, deer, small terrestrial mammals, birds and fish. Many of these food resources were widely dispersed and therefore a large number of food collecting and processing stations were used throughout the course of the year both on the desert floor and in the higher elevations of the San Jacinto and Santa Rosa mountains. These daily subsistence activities were performed by individuals or small family groups based at a nearby village or seasonal camp.

Villages were linked by social and economic ties and exchange of food and goods was common. By the late 18th century (the advent of the historic period in this region), the Cahuilla had developed a highly complex social organization based on clans and territories (Strong 1929). All Cahuilla had access to plants, animals, and other resources in the National Monument either directly or through trade. Pinyon Flat was within the territory of mountain Cahuilla groups, but was also used by members of desert villages located along the bases of the mountains in Coachella Valley during spring, summer and fall. Numerous economically important plants ripened during this period including agave and pinyon and the higher elevations were somewhat of a relief from the high temperatures of the Colorado Desert.

During the late 18th and early 19th centuries the coastal Indians, and to a far less extent the Cahuilla, fell under the influence of the Spanish mission system. At the missions, agricultural techniques and animal husbandry were introduced to the native peoples of southern California. Mission life proved destructive to the aboriginal lifestyle. Forced relocations, introduction of new diseases to which indigenous peoples had no immunity, and intermarriage all acted to hasten the demise of traditional subsistence and social patterns. Outbreaks of measles and smallpox in 1862 and 1863 drastically lowered the population of southern California Indians. Some groups of Cahuilla took refuge in the remote canyons of the National Monument during this time.

Reservations were set aside for the Cahuilla beginning in the 1870's. Today four Cahuilla Indian Reservations (Agua Caliente, Morongo, Torres-Martinez and Santa Rosa) are located within or adjacent to the National Monument; several other reservations are located to the west, east and south within a short distance.

The first European to pass through or near the National Monument may have been Captain Pedro Fages. Fages and a small party of soldiers left from San Diego in pursuit of deserters. After traveling east, they are believed to have turned northwest and skirted or crossed through the San Jacinto Mountains.

The journals of Garces, Diaz and Bautista provide clear evidence supporting Juan Bautista de Anza as the first European to pioneer a route through the region. Bautista passed south and west of the National Monument in 1774 and again in 1775-76. Following Bautista's expeditions, the San Jacinto and Santa Rosa Mountains remained relatively isolated from European exploration and exploitation until the late 1800s. In 1862 William Bradshaw established a wagon road from the gold mines of La Paz west to Los Angeles. Bradshaw's road passed through San Geronimo Pass along the northern boundary of the National Monument.

Ranchers, loggers, and miners entered the San Jacinto and Santa Rosa Mountains in the 1860s and 1870s. The first white settler to inhabit the general region was Charles Thomas. Thomas befriended Cahuilla living in Hemet Valley (which would later become Garner Valley) in the early 1860s. Thomas began running cattle and eventually homesteaded the area. Other names associated with the early ranching history of the National Monument include Arnaiz, Flores, Omstott, and Wellman. Their ranching operations soon extended to include Pinyon Flat, Little Pinyon Flat, and surrounding canyons. Many Cahuilla Indians served as ranch hands overseeing the day-to-day work and some tended to their own herds of cattle.

The history of mining in the National Monument also began in the late 1800s and includes the tale of gold "salting" at Kenworthy and the more typical stories of small production mines with short lives. Asbestos, beryllium, gold, limestone, and tungsten have been extracted from mines within the boundaries of the National Monument. In the 1930s Jack Miller constructed a small cabin to live in while he conducted small scale prospecting and mining efforts in Martinez Canyon. The cabin consists of cement walls that have been faced with local river rock. This vernacular style structure is one of few rock cabins still standing in the Colorado Desert and was listed on the National Register of Historic Places in 1999.

The early miners and ranchers living in Garner Valley and the Pinyon Flat area established wagon roads and cattle driveways along trails long-used by the Cahuilla and their ancestors. Turn of the century maps record a road from Garner Valley to Vandeventer Flat that continued east as far as the Asbestos Mine on the south slope of Asbestos Mountain. In 1919, A.C. Lovekin conceived of an idea for a road that would connect Pinyon Flat with the desert. Lovekin felt the road should follow the old Rincon Trail from Palm Springs up through Palm Canyon. This route was surveyed in 1920. However, an alternative route was proposed that would run from Pinyon Flat down along Deep Canyon and into what would eventually become Palm Desert. In July of 1932 this road, the Palms to Pines Highway, was opened.

In 1876 the Federal government allotted the odd-numbered sections of land on either side of the proposed Southern Pacific railway to the Railroad. This was common practice throughout the west and was meant to compensate the railroad companies for the costs of establishing rail service. This practice accounts for the “checkerboard” land ownership pattern that still exists in parts of the National Monument. Even-numbered sections were retained in Federal ownership and some were incorporated into the lands held in trust as reservation lands for the Cahuilla Indians. The Southern Pacific line from Yuma through the Salton Sink and San Geronio Pass was completed in 1877. The San Jacinto Mountains were designated a Forest Reserve in 1897 under the Forest Reserve Act of 1891. Since then the San Jacinto Forest Reserve has come under several administrative departments as the federal bureaucracy underwent its own growing pains. Administration of the Reserve went from the Interior Department General Land Office to the Bureau of Forestry and finally to the United States Forest Service in 1905. Also during this period the Reserve went from being its own unit to inclusion with the Cleveland National Forest in 1908 and eventual attachment to the San Bernardino National Forest in 1925. An excellent history is available by Robinson and Risher (1993) that include other aspects of the history and development of the San Jacinto Mountains.

3.C.2. Cultural Resources

A cultural resource is defined as a definite location of human activity, occupation, or use identifiable through field inventory (survey), historical documentation, or oral evidence. The term includes archaeological, historic, or architectural sites, structures, or places with important public and scientific uses, and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups. Cultural resources are concrete, material places and things that are located, classified, ranked, and managed through the system of identifying, protecting, and utilizing for public benefit described in the BLM 8100 Manual series and Forest Service Manual Section 2360.

Historic properties are those cultural resources found to be eligible for listing on the National Register of Historic Places (NRHP). The National Register Criteria for Evaluation can be found at 36 CFR 60.4. The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials, workmanship, feeling and association, and:

- (a) Are associated with events that have made a significant contribution to the broad patterns of our history; or
- (b) Are associated with the lives of persons significant in our past; or
- (c) Embody the distinctive characteristics of a type, period or method

- of construction, that represent the work of a master, that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) Have yielded or may be likely to yield information important in prehistory or history.

Section 106 of the National Historic Preservation Act (NHPA) of 1966 directed federal agencies to take into account the effects of their undertakings on historic properties—those archaeological and historic sites already listed on the National Register of Historic Places. Executive Order 11593 (1979) instructed federal agencies to identify properties, determine if they were eligible for the National Register, and evaluate the potential effects from proposed undertakings. As a result of EO 11593, eligible properties were to be treated with the same respect as sites already listed on the National Register.

Section 110 of the National Historic Preservation Act calls for federal agencies to identify and preserve historic properties under their jurisdiction. Cultural resources inventories not driven by proposed projects or undertakings are typically referred to as “110 surveys”. Records on file at the BLM Palm Springs-South Coast Field Office indicate that very little inventory, whether driven by Section 106 or Section 110, has occurred on federally managed lands in the National Monument planning area: approximately 9850 acres of inventory have been completed. This amounts to less than 7% of the total acreage managed by the BLM and Forest Service. Additional inventory is currently underway in support of this planning effort.

Approximately 177 cultural resources have been recorded on Federal lands within the National Monument. The majority of these are prehistoric sites containing artifacts and features such as lithics, ceramics, bone, bedrock mortars, hearths, rock walls or alignments, agave roasting pits, and cairns. Historic sites include can and bottle concentrations, Jack Miller’s cabin, mining prospects, quarry sites, water improvements associated with springs, and corrals. In addition there are eight linear sites. These consist of trails and trail segments generally interpreted as prehistoric in origin since prehistoric artifacts are commonly found along them. This conclusion is also supported by ethnographic and historic information.

Table 3-3: Cultural Resources Located on BLM/FS-Managed Lands

| | Prehistoric Sites | Multi-Component or Historic Sites | Linear Sites |
|--|--------------------------|--|---------------------|
| Sites Located on BLM Managed Lands | 83 | 7 | 6 |
| Sites located on Forest Service Managed Lands | 73 | 6 | 2 |

Few sites in the plan area have been formally evaluated for their eligibility to be listed on the National Register. Two districts, Rockhouse and Martinez Canyons, have been proposed for NRHP listing. Currently the Martinez Canyon Rockhouse (Jack Miller’s Cabin) is the only NRHP listed property on BLM managed lands. One additional

National Register listed site, the Coachella Valley Fish Traps, occurs just outside the National Monument boundary and is not located on federally managed lands.

Existing site forms generally provide too little information to make decisions regarding the potential for a site to contain significant information. It is also difficult to assess the integrity of sites from existing records. For the purposes of this analysis sites that contain a number of diverse artifacts and features, especially those with midden soils, were considered to have the potential to be eligible for listing on the National Register. Those consisting of surface concentrations of a single artifact or feature type are considered to have little potential to meet the National Register criteria and are listed as “Not Eligible” in Table 3-4. Many site forms are incomplete or outdated and a preliminary estimate of significance could not be made from the information these site forms provide. These are listed as unevaluated in Table 3-4.

Table 3-4: Eligibility Status of Recorded Sites

| | Unevaluated / Insufficient information | Not Eligible | Eligible / Warrant Additional Study |
|---------------------------|---|---------------------|--|
| Recorded sites | 39 | 100 | 38 |

3.C.3. Native American Concerns

In May of 2002 government-to-government consultation was initiated by letter with the Cahuilla Tribes and with Tribes whose reservations are adjacent to the National Monument. Subsequent contacts included both government-to-government level meetings and less formal staff level interactions. Tribal members also participated in the Monument Advisory Council’s Cultural Resources Working Group. As a result of this consultation a number of Native American Concerns were identified.

The need for protection and preservation of cultural resources was the most commonly voiced concern. The National Monument falls within the traditional use area of the Cahuilla Indians and contains sites of ancestral and ceremonial significance. There is a concern that increased and unregulated visitation of the National Monument could have a negative impact on these sites. Tribal members reported that some sites have already suffered from looting and vandalism. Several Tribal members also stated that the locations of sites should not be shared with the general public.

The Cahuilla also expressed a concern for the contents of interpretive materials that will present their culture and heritage to the public. They desire to be involved in the development of interpretive materials and in the overall interpretive effort.

Many traditional practitioners look to the National Monument area as a source for basketry materials, foods, and medicines. The Tribes asked for clarification of existing BLM and Forest Service policies for collecting and gathering of plant materials. They expressed interest in the development of a consistent and streamlined policy that would apply both to BLM and Forest Service managed lands. Cahuilla Tribal members also expressed concern as to whether the status of the area as a National Monument would limit their access to ancestral and ceremonial sites.

During consultation the potential for trespass from the National onto reservation lands was discussed. Suggestions to address this issue included rerouting trails away from reservation land, posting boundary signs, and including a warning in National interpretive materials.

3.D. Recreational Resources

Among the Coachella Valley's most valuable assets are its unique and impressive scenic and ecological resources, which attract thousands of visitors each year. An extrapolation of data from various access points in the Santa Rosa and San Jacinto Mountains provide an estimate of approximately 2.3 million visitors and pass-through commuters annually (BLM, 1999).

Much of the Valley's recreational appeal is due to a combination of distinctive topography, temperate climate, desert wildlife and vegetation, and proximity to vast public parks and recreation lands. Following is a description of recreational opportunities, as well as management parameters where applicable, on BLM and Forest Service lands in the National Monument.

3.D.1. Santa Rosa Mountains Visitor Center

Generous contributions from local communities and private interest groups provided land and funds for the Santa Rosa and San Jacinto Mountains National Monument Visitor Center. BLM oversaw construction of the facility, which was dedicated in March of 1996. The Center provides information to visitors about the natural history, cultural resources and recreational opportunities in the Santa Rosa and San Jacinto Mountains. The BLM and Forest Service are responsible for managing the day-to-day operations at the Visitor Center with assistance from Friends of the Desert Mountains, a non-profit volunteer organization that also operates a bookstore on site. The facility is open seven days a week, though hours of operation may be reduced during the extremely hot summer season.

3.D.2. Hiking, Biking and Equestrian Trails (including the Pacific Crest National Scenic Trail)

Many miles of multi-purpose trails are found in the Santa Rosa and San Jacinto Mountains, providing beautiful scenic vistas and access to natural treasures to be enjoyed by hikers, bikers, and equestrians (Tables 3-5 and 3-6). Of national significance is the Pacific Crest National Scenic Trail, which traverses the western part of the National Monument. This trail, designated as one of the nation's first National Scenic Trails through the National Trails System Act (Public Law 90-543; October 2, 1968), is managed in accordance with a Comprehensive Plan developed by the Forest Service (1982), and subsequent Memoranda of Understanding with the BLM.

Table 3-5. Trail Inventory for the San Jancinto Ranger District 2002

| <i>Trail Number</i> | <i>Trail Name</i> | <i>Trail Location</i> | <i>Length/Miles</i> |
|--|------------------------|---|---------------------|
| Pacific Crest National Scenic Trail | | | |
| 2000.25 | PCT | Snow Creek to Black Mtn Rd | 16.00 |
| 2000.26 | PCT | Black Mtn Rd to State Park boundary | 1.50 |
| 2000.28 | PCT | Deer Springs to State Park boundary | 1.90 |
| 2000.29 | PCT | State Park boundary to Saddle Junction | 1.90 |
| 2000.30 | PCT | Saddle Jct to Chinquapin Flats | 1.40 |
| 2000.31 | PCT | Chinquapin Flat to Little Tahquitz Valley | 0.80 |
| 2000.32 | PCT | Little Tahquitz Valley to Antsell Rock | 4.90 |
| 2000.33 | PCT | Antsell Rock to Apache Peak | 3.20 |
| 2000.34 | PCT | Apache Peak to Fobes Saddle | 2.60 |
| 2000.35 | PCT | Fobes Saddle to East Canyon | 3.70 |
| 2000.36 | PCT | East Canyon to Live Oak Spring Trail | 4.30 |
| 2000.37 | PCT | Live Oak Spring Trail to Highway 74 | 6.50 |
| | | Subtotal | 48.70 |
| San Jacinto Wilderness, excluding Pacific Crest National Scenic Trail | | | |
| 3E04 | Caramba | San Jacinto Wilderness | 3.70 |
| 3E16 | Cedar | San Jacinto Wilderness | 1.00 |
| 3E41 | Little Tahquitz Valley | San Jacinto Wilderness | 0.80 |
| 3E42 | Skunk Cabbage | San Jacinto Wilderness | 0.60 |
| 3E02 | Willow Creek | San Jacinto Wilderness | 2.00 |
| | | Subtotal | 8.10 |
| Desert View Area | | | |
| 4E01 | Palm Canyon | SH 74 to Forest boundary | 9.00 |
| 4E03 | Live Oak Spring | 4E01 to PCT | 5.20 |
| 4E17 | Cedar Spring | PCT to Forest boundary | 1.75 |
| | | Subtotal | 15.95 |
| Pinyon Area | | | |
| 5E01 | Cactus Spring | Santa Rosa Wilderness - Trlhd to BLM | 9.30 |
| 5E02 | Pinyon Flat | Palm Cyn Drive to Palm Cyn Trail | 4.00 |
| 5E03 | Sawmill | Sawmill Road to Santa Rosa Road | 3.50 |
| | | Subtotal | 16.80 |
| TOTAL | | | 89.55 |

Table 3-6. Trails Traversing BLM Lands 2002

| Trail Name | Trail Location | Total Length/Miles* | Length on BLM Lands/Miles** |
|---|-----------------------------------|----------------------------|------------------------------------|
| San Jacinto Mountains | | | |
| PCT | NM boundary to FS boundary | 3.0 | 0.5 |
| North Lykken | Ramon Rd to northern terminus | 4.5 | 0.1 |
| Skyline | DR Park to State Park boundary | 6.0 | 0.9 |
| Jo Pond | FS boundary to West Fork Trail | 4.1 | 1.7 |
| Subtotal | | 17.6 | 3.2 |
| West of Dunn Road to Palm Canyon | | | |
| Shannon | Palm Cyn Wash to Berns Trail | 1.0 | 0.9 |
| Garstin | Palm Cyn Wash to Berns Trail | 1.5 | 0.7 |
| Berns | Garstin Trail To Araby Trail | 1.0 | 0.9 |
| Araby | Palm Cyn Wash to Berns Trail | 1.6 | 0.3 |
| Wild Horse | Garstin Trail to Fern Cyn Trail | 3.5 | 2.0 |
| Clara Burgess | Wild Horse Trail to Goat Trail | 3.5 | 2.9 |
| Vandeventer | Palm Cyn to Dunn Rd | 4.0 | 2.0 |
| Fern Canyon | Palm Cyn to Fern Cyn Trail | 4.0 | 1.2 |
| Hahn Buena Vista | Vandeventer Trail to Dunn Rd | 3.0 | 1.7 |
| Dry Wash | Palm Cyn to Dunn Rd | 3.0 | 2.1 |
| Palm Canyon | Vandeventer Tr to FS boundary | 4.0 | 1.3 |
| Indian Potrero | Dry Wash Trail to Palm Cyn Trail | 2.2 | 0.9 |
| Subtotal | | 32.3 | 16.9 |
| Dunn Road to Highway 74 | | | |
| Dunn Rd | Cat City Cove to FS boundary | 12.3 | 6.6 |
| Cathedral Canyon | Cathedral City Cove to Dunn Rd | 1.5 | 0.7 |
| Art Smith | Hwy 74 to Dunn Rd | 8.0 | 3.5 |
| Schey | Cahuilla Hills to Art Smith Trail | 0.9 | 0.3 |
| Subtotal | | 22.7 | 11.1 |
| East of Highway 74 | | | |
| Bear Creek Cyn | La Quinta Cove to Oasis Trail | 1.5 | 0.6 |
| Bear Creek Oasis | Bear Creek Cyn Trail to terminus | 3.0 | 1.7 |
| Guadalupe | Boo Hoff Trail to FS boundary | 3.0 | 2.2 |
| Boo Hoff | NM boundary to Morrow Trail | 6.5 | 5.0 |
| Morrow | NM boundary to Boo Hoff Trail | 0.4 | 0.4 |
| Martinez Canyon | NM boundary to J. Miller Cabin | 6.9 | 3.9 |
| Cactus Spring | Martinez Cyn Tr to FS boundary | 2.5 | 0.6 |
| Subtotal | | 23.8 | 14.4 |
| TOTAL | | 96.4 | 45.6 |

*Based on *Trails Map, Santa Rosa Mountains National Scenic Area* (Coachella Valley Trails Council, 1995), where numbers are available.

**Approximate mileage.

[The following trails located at lower elevations of the National Monument do not traverse BLM lands or Forest Service lands: Museum, South Lykken, Henderson, Andreas, Murray Canyon, Maynard Mine, Pelton, Coffman, West Fork, Victor, Alexander, Eagle Canyon, and Goat Trails.]

The BLM and Forest Service acquired high-resolution aerial photography in 2002 covering the entire National Monument. Trail inventories will be revised based on this product. Except for the Pacific Crest National Scenic Trail, public easements for trails traversing non-Federal lands at the lower elevations of the Santa Rosa and San Jacinto Mountains have not been acquired.

Many of the lower elevation trails occur in essential habitat for the Peninsular Ranges bighorn sheep, a species determined to be endangered by the U.S. Fish and Wildlife Service. (Figure 6) While public interest in maintaining year-round access to the trail system is widespread, there is a requirement to ensure that recreational activities do not hinder recovery of the bighorn sheep. A pending trails management plan for the Santa Rosa and San Jacinto Mountains will address continued recreational access in light of recovery needs.

BLM staff conducted a trail user survey from January through June 2001, and from January through April 2002 to evaluate trail use patterns on eight trails in the Santa Rosa Mountains: (1) Art Smith Trail, (2) Bear Creek Canyon Trail, (3) Lower Dunn Road, (4) Upper Dunn Road, (5) Cathedral Canyon Trail, (6) Clara Burgess Trail, (7) Boo Hoff Trail, and (8) Morrow Trail. A total of 4,421 trail users were identified during this time period. Hikers accounted for 87%, mountain bikers for 11%, and equestrians for 2% of all trail users. Of the eight trails monitored, the Art Smith Trail received the most overall usage (87%). The Art Smith Trail also received the most use by hikers (59% of all observed hiking use on the eight trails); however, the Lower Dunn Road received the most use from mountain bikers (60% of all observed mountain biking use on the eight trails), and the Boo Hoff Trail received the most use from equestrians (63% of all observed equestrian use on the eight trails).

Mountain biking:

BLM

Mountain biking is allowed on BLM roads and trails, except for the Pacific Crest National Scenic Trail and trails within designated wilderness.

Forest Service

Mountain biking is allowed on Forest roads and trails, except for the Pacific Crest National Scenic Trail and trails within designated wilderness and leading into wilderness. Mountain biking off trails and roads is discouraged. (San Bernardino Land Resource Management Plan Standards and Guidelines, SG-40: 1. Allow mountain bikes to use forest trails except for the Pacific Crest Trail and trails within wilderness. a. Individual trails may be closed if safety or resource problems cannot be mitigated. Pursuant to Title 36 of the Code of Federal Regulations, Subpart 261.50 (a) and (b), Order No. 3, Wilderness Areas, San Bernardino National Forest: 10. Possess or use any wheeled mechanical device and on all trails leading to Wilderness. 261.57h)

A strategic plan for mountain biking on the San Jacinto Ranger District of the San Bernardino National Forest was developed in 1994 that describes the long-range vision and goals for the program, and to set a planning framework for the project implementation team and partners (Mountain Biking Program, San Jacinto Ranger District, Strategic Plan 1994-1998). The Ranger District applied for and received in 1993, an American Great Outdoors grant of \$150,000 to be used for planning (\$20,000), signing and interpretation (\$30,000), and construction of mountain bicycle routes (\$100,000).

Temporary management of trails in bighorn sheep habitat:

Within essential Peninsular Ranges bighorn sheep habitat, there are 153 miles of primary trails; other unnamed trails exist but have not been identified. Since 1998, trail users have been requested to voluntarily refrain from using certain trails in bighorn sheep habitat from January 1 to June 30 to minimize disturbance to bighorn sheep during the lambing season, with additional trails being included in 2001. These are: (1) Art Smith Trail, (2) Bear Creek Canyon Trail, (3) Bear Creek Oasis Trail, (4) Dunn Road, (5) Cathedral Canyon Trail, (6) Clara Burgess Trail, (7) Boo Hoff Trail, (8) Morrow Trail, (9) Guadalupe Trail, and (10) North Lykken Trail, totaling 33 miles in length. A portion of Dunn Road on private lands is currently posted as “no trespassing,” hence closing that part to use without landowner permission. Trail users are also requested to voluntarily refrain from using the Bear Creek Oasis Trail, Guadalupe Trail, and a portion of the Art Smith Trail from July 1 through September 30 to facilitate bighorn sheep access to water sources. In addition, dogs are prohibited on BLM lands within the National Monument east of Palm Canyon.

The voluntary trail avoidance programs, as well as the dog prohibition, are temporary pending approval of a trails management plan for the Santa Rosa and San Jacinto Mountains.

3.D.3. Wilderness Experiences

The National Monument contains two Federally designated wilderness areas administered by the BLM and Forest Service: the Santa Rosa Wilderness (includes BLM’s Santa Rosa Wilderness Additions) and the San Jacinto Wilderness. These areas afford outstanding opportunities for solitude and primitive types of recreation. Very few imprints of man will be apparent to visitors in these areas. Those seeking the ultimate escape from the human dominated landscape will therein find solace. Travel in wilderness areas is limited to foot or equestrian conveyance. Motorized vehicles, bicycles, or any other form of mechanized equipment is prohibited in these areas to protect the solitude and primitive nature of these special places.

3.D.4. Wildlife Viewing

Federal Watchable Wildlife Program

The Watchable Wildlife partnership is a cooperative, nationwide effort to help maintain viable populations of all native animal species by building effective, well-informed public support for conservation. On December 3, 1990, representatives of 13 organizations, including the BLM and Forest Service, signed a Memorandum of Understanding pledging to cooperate in carrying out a Watchable Wildlife Program.

Wildlife viewing opportunities are publicized through production of State wildlife viewing guides. These are developed by State committees that select and described many of the best sites in the State, both public and private, for viewing wildlife. The sites are picked for their wildlife, safe access, and ability to accommodate visitors without disturbing animals or their environment. Brown highway signs with a binoculars logo indicate the location of these Watchable Wildlife sites.

Within the National Monument, two sites have been identified as wildlife viewing areas: Palms to Pines Scenic Byway and Mount San Jacinto State Park. Along the Scenic Byway, birds of prey, deer, small mammals, and predators can be seen year-round. In

the State Park, small mammals and predators can be seen from spring through fall, while songbirds and birds of prey are viewed in spring and mid-fall.

3.D.5. Camping

BLM

Camping is permitted on all BLM lands within the National Monument. There are no developed facilities for camping on BLM lands. Campers may occupy a single site for a maximum of 14 days, and then move to a new location at least 25 miles away. Campsites must be at least ¼ mile from wildlife water sources, whether natural or manmade. Vehicle camping is allowed within 100 feet from centerline of an approved route, except where the limit extends into designated wilderness. Camping in previously disturbed sites is encouraged. Permits and fees are not required for camping on BLM lands.

Camping within essential habitat for Peninsular Ranges bighorn sheep will be addressed through a trails management plan for the Santa Rosa and San Jacinto Mountains (pending). (Figure 6)

In the interest of wildfire prevention and in compliance with Title 43 of the Code of Federal Regulations, Subpart 9212.2, requiring BLM actions to compliment and support State and local wildfire prevention, all State and local wildfire prevention laws and regulations apply to BLM lands within the California Desert District. During the fire season, campfires and barbecues are allowed with a permit or prohibited subject to fire stage restrictions; outside fire season, campfires and barbecues are generally allowed without a permit.

Forest Service

A family campground with developed facilities (toilets, fire rings, tables, and parking spaces) is located at Pinyon Flat (Pinyon Flat Campground). A group campground for equestrian use is also located at Pinyon Flat (Ribbonwood Equestrian Campground). Fees are charged for use of these sites.

Dispersed area camping is permitted on Forest Service lands within the National Monument, except where expressly prohibited including picnic areas, trailheads, and day use areas. Dispersed area camping is generally allowed as long as the user is ¼ mile from State Highways, private property, or campgrounds. Campers may occupy a single site for a maximum of 14 days, and then move to a new location. Campsites must be at least 200 feet from a body of water. Vehicles should not be operated off of the designated roadway to access a camping spot. When camping within the San Jacinto Wilderness, an overnight permit is required.

The use of fire while camping varies within the San Bernardino National Forest. Within campgrounds and picnic areas, fires must be built within the facility provided. Fire use within the wilderness areas is allowed with a permit, and within designated firerings. There are no open fires allowed within the Santa Rosa Wilderness, and fire regulations within the San Jacinto Wilderness change during the year.

3.D.6. Hunting

All hunting activity is regulated by the California Department of Fish and Game. Hunters must possess a valid hunting license and obey all laws and regulations pertaining to the use of firearms in California. Hunting is generally allowed on the BLM and Forest

Service lands, except in developed recreation sites (Title 43 of the Code of Federal Regulations, Subpart 8365.2-5) and within the Santa Rosa Mountain State Game Refuge. (Figure 7)

3.D.7. Recreational Shooting

Recreational shooting, or target shooting, is not synonymous with hunting, i.e., the discharge of firearms for target shooting purposes does not require a valid hunting license. However, the discharge of firearms for target shooting purposes is not allowed where hunting is prohibited. Where target shooting is allowed, it usually occurs within a short walking distance from a shooter's vehicle. As few open roads exist where shooting is legal (2 miles of open routes on BLM lands and 16 miles on Forest Service lands), it is reasonable to conclude that recreational shooting does not occur in much of the National Monument.

BLM

Recreational shooting is allowed on BLM lands except within 150 yards of developed facilities and in the Santa Rosa Mountain State Game Refuge. The State Game Refuge encompasses much of the Santa Rosa Wilderness, as well as other lands in the Santa Rosa Mountains. (Figure 7)

Forest Service

Recreational shooting is not allowed on Forest Service lands within the Santa Rosa and San Jacinto Wilderness areas.

3.D.8. Hang Gliding

Over the last 30 years of its evolution as a modern sport, hand gliding has made substantial advances in both technological and participant safety aspects. Through the auspices of the United States Hang Gliding Association (USHGA), modern gliders are required to pass an extensive series of structural and aerodynamic tests, which exceed Federal Aviation Administration (FAA) requirements for private aircraft. Hand gliders and sailplanes (full size gliders) were tied statistically in 1990 as the safest forms of sport aviation (from 1990 USHGA survey). In the desert, hang gliders regularly climb to 15,000 feet or higher on thermal air currents, and flying cross-country they have achieved distances of over 300 miles.

In 1990, the average hang glider pilot was 37 years old, with a family, a college education, and earned approximately \$42,000 per year (1990 USHGA survey). The "daredevil" aspect of old has been replaced with a considered, responsible desire to experience life in a unique, spectacular and non-destructive way.

The only recognized hang glider launch site in the National Monument is located at Vista Point on Highway 74. Because of its convenience and proximity to a major tourist area (Coachella Valley), Vista Point became an established hang gliding site very early in the history of the sport—it was first flown in 1973—and has been an attraction for pilots internationally since then. It has been the site for many commercial advertisements incorporating hang gliding and the spectacular terrain. In 1979, the television series "*Eight is Enough*" filmed a special two-hour episode at Vista Point with hang gliding as the focus.

For many years, hang glider pilots landed in the area now adjacent to the Santa Rosa and San Jacinto Mountains National Monument Visitor Center after launching from Vista

Point. However, this site constituted a “bail out landing area” when thermal air currents were not sufficient to carry gliders farther (Scott Smith, pers. comm.). In the late 1990s, concerns were raised regarding overflights of bighorn sheep pens at the Bighorn Institute, as well as landings on the Institute’s property. These issues have not been resolved; hang gliding launches from Vista Point have ceased pending resolution.

3.D.9. Rockhounding, Geocaching and Other Collecting

Part 8365 of Title 43 of the Code of Federal Regulations provides for the collecting of “reasonable” quantities of rocks, minerals, semiprecious gemstones, and invertebrate and plant fossils of non-scientific purpose for personal use. However, regulations do not permit collecting on “developed recreation sites and areas,” or where otherwise prohibited or posted. Informal discussions with local gem and mineral clubs indicate that the Coachella Valley is not known to contain significant gem and/or mineral resources. Therefore, rockhounding activity in the Valley, including the National Monument, is considered very low.

Geocaching

Geocaching is an entertaining adventure game for geographic positioning system (gps) users. The basic idea is for individuals and organizations to set up caches all over the world and share the locations of these caches on the internet. GPS users can then use the location coordinates to find the caches. The finder is asked to leave something for the cache if they take something from it.

Typically, geocaching internet sites include latitude/longitude and UTM coordinates, a general map of the geocache location, and a description of the cache contents. Geocachers are afforded an opportunity to include a narrative on the internet site about their quests for the cache, as well as what they took and left behind. A search of such an internet site in February 2003 yielded several cache locations in the National Monument. For example, the “Bear Creek Cache” includes such items as pens and pencils, bandanas, Tonka Hummer trucks, lint brush, beaded necklaces, keychains, and a golfer’s towel.

Collection of Materials Within the Monument

The guidance of casual collecting of materials within the Monument is provided under current Forest Service and BLM Policy and Regulation. The following

Research

Any collecting in support of research requires a research permit. BLM Palm Springs Office Staff and San Jacinto Ranger District Staff respond to requests for research permits on a case-by-case basis.

Commercial

Any collecting of products for commercial use requires a commercial permit. BLM and Forest Service Commercial Use policies apply.

Rocks and Minerals

On BLM lands, casual use collection of rocks and minerals (i.e., when no or negligible disturbance to land or resources results from such collection) is allowed within the National Monument. Soil (non-cryptobiotic), rock or mineral collecting using hand tools, hand panning or non-motorized sluicing is generally allowed. Metal detector use is

allowed; gold spears or other battery-operated devices to identify minerals are generally allowed. Casual use collection does not include the use of earth-moving machinery, truck mounted drilling equipment, chemicals or explosives. When cumulative effects of any of the allowable casual uses result in more than negligible disturbance to land or resources, the use is not casual and is not permitted.

On Forest Service land, casual collecting is allowed.

Plants and Animals

Within the National Monument, collection of any plant material requires a permit from the BLM and Forest Service. This permit will contain details regarding the amount of plant material to be collected, prohibited areas or species of plants, and methods of collection. On BLM land, certain plants, such as *Agave* and *Yucca* species, are not allowable for collection. In addition to permits from the BLM and Forest Service, the State of California passed the California Native Desert Plants Act, which restricts the numbers and types of plants (living and dead) that can be collected and provides for a permit system administered by the counties. If the plant or animal is state or federally listed, additional permits are required per the Federal and State Endangered Species Acts. Additional information is provided in the Biological Resources Section of this Chapter.

Firewood

Forest Service issues permits for firewood collection in designated sites.

Cultural Resources

Collection of cultural resources (i.e. Native American artifacts) within the National Monument is prohibited under the Archaeological Resources Preservation Act as well as other Federal regulations and law on both Forest Service and BLM lands.

3.D.10. Art Smith Trailhead

BLM, in cooperation with California Department of Fish and Game (CDFG), manages the Art Smith Trailhead, which is located near the Santa Rosa and San Jacinto Mountains National Monument Visitor Center on Highway 74, south of the City of Palm Desert. The trailhead provides direct access to Carrizo and Dead Indian Canyons, and serves as an important and often-used staging area for recreationists to access an extensive trails network, via the Art Smith Trail, that traverses the Santa Rosa Mountains. Trails in Carrizo Canyon Ecological Reserve, which includes Carrizo Canyon, are temporarily closed to all use from January 1 to June 14 by CDFG, and closed from June 15 through September 30 in accordance with California Code to protect bighorn sheep.

3.D.11. Pets

BLM

Pets are generally allowed on BLM lands in the National Monument, except where specifically prohibited. Effective February 1, 2000, dogs were temporarily prohibited on BLM lands located east of Palm Canyon in the Santa Rosa Mountains (except in the wash immediately west of Cathedral City Cove, and immediately south of La Quinta Cove), pending completion of a comprehensive trails management plan (Vol. 65, *Federal Register*, 3473-3474, January 21, 2000).

Forest Service

Pets are generally allowed on Forest Service lands in the National Monument, but they must be on a leash within the Santa Rosa and San Jacinto Wilderness areas.

3.D.12. Adventure Pass

In 1996, the four Southern California National Forests took advantage of the 1996 Recreation Fee Demonstration Authority and implemented a program designed to reduce recreation deferred maintenance and problems posed by increasing use. The National Forest Adventure Pass program began in June 1997. In FY2001, Congress approved a two-year extension of the fee program. Under the Adventure Pass program, Forest visitors buy either a daily pass for \$5 or an annual pass for \$30, unless they are using site-specific fee areas such as campgrounds or some picnic areas. The pass is displayed in the visitor's vehicle when parked on Forest Service lands.

Within the San Jacinto Ranger District of the National Monument, passes are required on Santa Rosa Mountain, at Fuller Ridge and Sawmill Trailheads, and parking on Forest Service lands at non-designated sites for hiking and picnicking. A pass is not required to park at Cahuilla Tewanet Interpretive Site.

The San Jacinto Ranger District receives approximately \$182,000 annually from the Adventure Pass. The estimated income that can be attributed to National Monument areas within the San Jacinto Ranger District from the Adventure Pass Program is approximately \$5000.

Adventure Pass receipts are used to pay employees, service contracts, and purchase materials to perform the following duties: pickup and remove litter and trash, clean sites, maintain facilities, patrol area for resource protection, maintain trails, dispense visitor information, and enforce Federal regulations. Employees paid with Adventure Pass receipts maintain the National Monument areas, such as Cahuilla Tewanet, Sawmill Trailhead, Pinyon Flat Trail, and the Yellow Post sites within the National Monument. Presently, during the summer season, there are four Forest Service employees whose salaries are covered by Adventure Pass funds.

3.D.13. Off-Highway Vehicle Use (also see 3.N, Motorized-Vehicle Access)

BLM

BLM-managed lands available for off-highway vehicle (OHV) use are designated as "open," "limited" or "closed." In "open" areas, vehicle travel is permitted anywhere if the vehicle is operated responsibly in accordance with regulations, and subject to permission of private land owners where applicable; there are no designated open areas on BLM lands in the National Monument. In "limited" areas, vehicles are required to remain on approved routes of travel (i.e., designated "open" or "limited"); cross-country travel is prohibited. Most BLM lands in the National Monument are designated as "limited" for OHV use. In "closed" areas, vehicle travel is prohibited, except for administrative or emergency use. An area south of Highway 111 at Windy Point (357 acres) is designated "closed" to OHV use. OHV and other vehicle use is prohibited in all wilderness areas, except to accommodate specific authorized activities as provided for by law.

Forest Service

Off-highway vehicle activities on Forest Service lands in the National Monument are restricted to approved routes and registered, street-legal vehicles.

Regional OHV Opportunities

The following sites offer OHV recreation opportunities within 100 miles of the Coachella Valley:

- Imperial Sand Dunes Recreation Area, 22,000 acres. BLM-managed OHV Open Area, 25 miles east of Brawley.
- Plaster City/Superstition Mountains, 54,000 acres. BLM-managed OHV Open Area, 15 miles northwest of El Centro.
- Ocotillo Wells/Arroyo Salado State Vehicle Recreation Area, 64,800 acres. Managed by California Department of Parks and Recreation, 60 miles south of Indio.
- Johnson Valley, 140,000 acres. BLM-managed OHV Open Area, 50 miles north of Palm Springs.
- Glen Helen OHV Park, 300 acres. Managed by San Bernardino County Parks, 60 miles west of Palm Springs.

3.D.14. Facilities Maintenance

BLM and Forest Service facilities in the National Monument (e.g., Visitor Center, Pinyon Flat and Ribbonwood Campgrounds, Sawmill Trailhead, and Cahuilla Tewanet) are maintained on a scheduled basis. Unanticipated maintenance needs are addressed as needed. Maintenance needs for which funds are unavailable in a given fiscal year, including facility replacement, are identified in subsequent fiscal years as “deferred maintenance.”

3.D.15. Recreation Opportunity Spectrum

The San Bernardino National Forest has developed Recreation Opportunity Spectrum classes for Forest Service lands within the National Monument. These classes provide objective for future management. The BLM lands within the National Monument do not have a recreational opportunity spectrum class system, so no equivalent classification has been applied. The following ROS classes (Figure 9.) and associated descriptions and management objectives exist within the National Monument:

a. Primitive = 38,201 acres of Forest Service land within the National Monument:

Area is characterized by essentially unmodified natural environment of fairly large size. Interaction between users is very low and evidence of other users is minimal. The area is managed to be essentially free from evidence of human-induced restrictions and controls. Motorized use within the area is not permitted. Extremely high probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility and self-reliance through the application of woodsman and outdoor skills in an environment that offers a high degree of challenge and risk. Activity opportunities include viewing scenery, photography, hiking, horseback riding, camping, mountain climbing, nature study, hunting, fishing, snowshoeing, and snow play.

b. Semi-primitive Non-motorized: 10,176 acres of Forest Service land within the National Monument

Area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Interaction between users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls

and restrictions may be present, but are subtle. The presence of roads is tolerated, provided: they are closed to public use; they are used infrequently for resource protection and management; and the road standards and locations are visually appropriate for the physical setting. High, but not extremely high probability of experiencing isolation from the sights and sounds of humans, independence, tranquility and self-reliance through the application of woodsman and outdoor skills in an environment that offers challenge and risk. Activity opportunities include viewing scenery, photography, hiking, horseback riding, camping, mountain climbing, nature study, hunting, fishing, swimming, snow play, cross-country skiing and snowshoeing.

c. Semi-primitive Motorized: 4,171 acres of Forest Service land within the National Monument

Area is characterized by a predominantly natural or natural-appearing environment of moderate-to-large size. Concentration of users is low, but there is often evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, but are subtle. Motorized use is permitted. Moderate probability of experiencing isolation from the sights and sounds of humans, independence, closeness to nature, tranquility and self-reliance through the application of woodsman and outdoor skills in an environment that offers challenge and risk. Opportunity to have a high degree of interaction with the natural environment. Opportunity to use motorized equipment while in the area. Activity opportunities include viewing scenery, photography, hiking, horseback riding, OHV use (motorcycles, ATV's and 4-wheel drives), camping, picnicking, mountain climbing, nature study, hunting, fishing, swimming, snow play, cross-country skiing and snowshoeing.

d. Roaded Natural: 3,578 acres of Forest Service land within the National Monument

Area is characterized by predominantly natural-appearing environments with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in construction standards and design of facilities. About equal probability to experience affiliation with other user groups and for isolation from sights and sounds of humans. Opportunity to have a high degree of interaction with the natural environment. Challenge and risk opportunities associated with more primitive type of recreation are not very important. Practice and testing of outdoor skills might be important. Opportunities for both motorized and non—motorized forms of recreation are possible. Activity opportunities may include viewing scenery, photography, hiking, horseback riding, bicycling, automobile touring, OHV's (motorcycles, ATVs, 4-wheel drives), camping, picnicking, organization camps, recreation residences, resorts, lodges, gathering forest products, nature study, interpretive services, hunting, fishing, swimming, canoeing, boating, snow play, downhill skiing, snowmobiling, cross-country skiing, snowshoeing and tobogganing.

e. Rural: 624 acres of Forest Service land within the National Monument

Area is characterized by substantially modified natural environment. Resource modification and utilization practices are to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is often moderate to high. A considerable

number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available. Probability for experiencing affiliation with individuals and groups is prevalent, as is the convenience of sites and opportunities. These factors are generally more important than the setting of the physical environment. Opportunities for wildland challenge, risk-taking and testing of outdoor skills are generally unimportant except for specific activities like downhill skiing, for which challenge and risk-taking are important elements. Activity opportunities include viewing scenery, photography, hiking, horseback riding, bicycling, automobile touring, OHV's (motorcycles, ATV's, 4-wheel drives), camping, picnicking, organization camps, recreation residences, resorts, lodges, gathering forest products, nature study, interpretive services, hunting, fishing, swimming, canoeing, sailing, power boating, snow play, downhill skiing, cross-country skiing, snowmobiling and snowshoeing.

Recreation Opportunity Spectrum (Forest Service only)
Acres within the National Monument

| | |
|------------------------------|--------|
| Roaded Natural | 3,578 |
| Semi-primitive non-motorized | 10,176 |
| Semi-primitive motorized | 4,171 |
| Primitive | 38,201 |
| Rural | 624 |
| Total acres | 56,750 |

3.E. Soils, Geology, Mineral and Energy Resources

3.E.1. Soils

The Santa Rosa and San Jacinto Mountains National Monument contain soils that are generally associated with the Southern California Mountains. Soils in this physiographic area consist mainly of large areas of thin soils on granite and granodiorite, smaller areas of thin soils on metamorphic gneisses and mica schists, and deeper soils formed in small valley fills and alluvial fans.

Soil types include excessively drained to well-drained sands, gravelly sands, loamy sands that develop on rock outcrops, inter-mountain valleys and alluvial fans. Soils that develop on rock slopes occur on slopes ranging from 9 to 75 percent. These soils tend to be very shallow, generally less than 6 inches thick. They are slightly acid to mildly alkaline and noncalcareous. The organic matter content is very low and decreases rapidly with increasing depth. These soils are moderately permeable, mainly through cracks and fissures. Runoff is rapid. The erosion hazard is moderate to high.

Soils that develop on alluvial fans or in small valley fills consist of excessively drained to well-drained loamy sand to fine sandy loam. Slopes range from 2 to 25 percent. The thickness of these soils is up to 60 inches thick. Generally, the permeability of these soils is rapid. Runoff is medium, and the hazard of erosion is moderate.

3.E.2. Geology

The Santa Rosa and San Jacinto Mountains National Monument are located in the northeast portion of the Peninsular Ranges Geomorphic Province. This is one of nine

well defined natural regions or provinces in California. Each of these provinces has certain broad and more or less characteristic features, such as relief, landforms, geology and landscapes that distinguish it. The Peninsular Ranges Province includes the southwestern part of California, and are characterized by steep, elongated mountain ranges and valleys that trend northwestward. On the north, the Peninsular Ranges are cut off sharply by the Transverse Ranges, located at the northern end of the Los Angeles Basin. The Peninsular Ranges extend through about 140 miles in California and continue southward to form the backbone of Baja California, Mexico for another 750 miles. The width of the range is 50 to 140 miles.

Principal mountain ranges within the Peninsular Ranges Province, from north to south within California are the Santa Ana Mountains, San Jacinto Mountains, Santa Rosa Mountains, Agua Tibia and Laguna Mountains. San Jacinto Peak (elevation 10805 feet) is the highest peak in the Peninsular Ranges, and the highest peak in the Santa Rosa Mountains is 8705 feet.

The eastern face of the Santa Rosa-San Jacinto Mountains, which drops off extremely steeply to the floor of the Coachella Valley, is reminiscent of the eastern face of the Sierra Nevada. Both ranges are northwestward trending mountain blocks. As with the Sierra, the topography of the western slopes of the Santa Rosa-San Jacinto Mountains is much less rugged than that of the eastern slopes, descending relatively gradually to the west. The similarity between the Sierra Nevada and the Santa Rosa-San Jacinto Mountains also extends to the rock formations and geologic history of the two ranges.

Rock types in the Santa Rosa-San Jacinto Mountains generally consist of pre-Cretaceous age (older than 135 million years) metasedimentary and metavolcanic rocks that were altered by the intrusion of late Cretaceous age (70 to 135 million years ago) plutonic igneous rocks of the Southern California Batholith. Much younger alluvial deposits (less than 1 million years old) exist in valleys and on the flanks of the mountains.

Large pendants of metasedimentary rocks contained in and adjacent to the granitic batholith are exposed extensively in the Santa Rosa and San Jacinto Mountains. The most extensive exposures of these metasedimentary rocks are on the east side of Palm Canyon and southeastward into the Santa Rosa Mountains, in the upper parts of the San Jacinto Mountains west of Palm Canyon, and in the vicinity of Chino Canyon northwest of Palm Springs. These metasedimentary rocks are primarily schist and gneiss. The schists are fine-grained, gray, homogenous, foliated, and composed mostly of mica, quartz, and feldspar. The schist grades into coarse grained gneiss which is finely layered and composed of dark micaceous laminae and light colored quartz and feldspar rich laminae. Units of quartzite, a metamorphosed sandstone, are locally present in the metasedimentary series. The thickest unit of quartzite is exposed in the southern San Jacinto Mountains, where it has been mapped as the Ken Quartzite. The Ken Quartzite is as thick as 2000 feet, and is traceable for about 11 miles. Metamorphosed carbonate rocks (marble) occur in the metasedimentary series as lenticular units as thick as 1000 feet. They are composed of moderately bedded, fine to coarse crystalline, light gray to white marble. The marble is a metamorphosed limestone and exists as lenses or layers between the schist and gneiss in the northern San Jacinto Mountains and north and south of Highway 74 in the Pinyon Flat area. The metasedimentary rocks of the San Jacinto and Santa Rosa Mountains have not yielded any age-diagnostic fossils, however some fossil fragments have been reported in the

metamorphosed limestones. The age of these metamorphic rocks is unknown, however, they are older than the granitic rocks of Cretaceous age that intruded into them, and are probably Paleozoic in age (270 to 600 million years old).

The granitic rocks that form the major part of the Santa Rosa and San Jacinto Mountains are part of the Southern California Batholith. The batholith is a large mass of igneous rock that formed when magma was emplaced at depth, cooled, crystallized, and was subsequently exposed by erosion. This granitic batholith is 70 miles wide, extending westward from the San Jacinto Mountains to the Santa Ana Mountains, and continues southward into Baja California. The granitic rocks include many types and were intruded in a series of pulses as more or less discrete plutons. The granitic rock types range from light-colored granite, to intermediate-color diorite and to darker-colored gabbro. Smaller amounts of igneous rocks that occur in the Santa Rosa and San Jacinto Mountains are fine-grained aplite and coarse-grained pegmatite dikes and veins. These dikes and veins are tabular shaped bodies that cut across the structure of adjacent granitic or metasedimentary rocks, and are derived from the leftovers of the magma intrusions. The igneous rocks in the Santa Rosa and San Jacinto Mountains have been radiometrically age dated at 90 to 110 million years, or about mid-Cretaceous age indicating an approximate age for crystallization of the igneous rock and emplacement of the plutons.

Valley sedimentary deposits of late Cenozoic age (11,000 to 3 million years ago) underlie the small valley areas within and adjacent to the Santa Rosa and San Jacinto Mountains. Nearly all of these deposits are stream-laid alluvial deposits, and in places include clays of possible lacustrine origin.

Structurally, the Santa Rosa and San Jacinto Mountains are an uplifted block of granitic and metasedimentary rock adjacent to the active, San Jacinto Fault Zone on the southwest and the San Andreas Fault Zone and the Salton Trough/Coachella Valley on the north and east. The Santa Rosa Shear Zone (also known as a mylonite zone) is a structural feature that cuts across the range was formed by a process in which rocks are broken and granulated by stress during movement along faults. This movement or shearing causes the rock to be fractured and broken, and easily erodible. The upper drainage in Deep Canyon and much of the drainage in Palm Canyon is controlled by this shear zone. Several active and inactive faults are present in the National Monument. The active faults are associated with the San Jacinto Fault Zone located in the southwest corner of the National Monument, near Santa Rosa Mountain. This fault zone is considered to be one of the most active faults in southern California. Faulting and earthquakes may have been responsible for the development of the Martinez Mountain Landslide, the second largest feature of its kind in the United States.

3.E.3. Mineral Resources

The Santa Rosa and San Jacinto Mountains National Monument have been withdrawn from mineral entry. Future mineral resource extraction would not be permitted within the National Monument, except where valid existing mining rights existed prior to creation of the National Monument.

Mineral resources in the National Monument are largely limited to undeveloped aggregate deposits (sand, gravel, and crushed stone), gold, copper, limestone, asbestos, beryllium, and tungsten. Except for the limestone deposits, these deposits are

limited in nature and have not been extensively mined. There are no State of California classified or designated mineral resource zones within the National Monument. BLM mineral potential maps indicate that there are no prospectively valuable oil and gas resources, geothermal resources, or sodium, potassium and phosphate deposits.

There are currently 41 active, unpatented mining claims within the National Monument. None of these claims have approved Plans of Operations or Notices of Intent to Mine. Any claimants proposing to explore or mine minerals on their claims would be subject to a validity examination, surface management regulations, and NEPA requirements prior to commencement of any operations.

Locations of abandoned mined lands (AML) generally coincide with the locations of previous mining areas within the National Monument. A complete inventory of these AML's would need to be prepared so as to mitigate any hazards associated with these AML's.

3.E.4. Energy Resources

Electrical Power. Southern California Edison (SCE) and the Imperial Irrigation District (IID) provide electric power services to the Coachella Valley. Both companies utilize a combination of hydroelectric, thermal, diesel, and geothermal power sources, most of which are located outside the valley. Electricity is distributed to the Coachella Valley via high-voltage (up to 500 kilovolts) transmission lines, which cross the valley along an east-west trending utility corridor north of Interstate-10 and outside of the bounds of the National Monument. Electricity is distributed by Anza Electric to the community of Pinyon through a 33 KV powerline with GTE phoneline distribution attached. This line crosses the National Monument via a Forest Service right-of-way grant.

Natural Gas. Natural gas is found in association with petroleum crude oil deposits and is generally considered a clean and efficient fuel. The Southern California Gas Company provides natural gas services to much of the planning area. The fuel is transported from Texas to the Coachella Valley through three east-west trending gas lines, which cross the valley just north of Interstate-10 and continue west to Los Angeles. The pipelines include one 30-inch line and two 24-inch lines, with pressures of 2,000 pounds per square inch (psi).

Wind Energy. The Bureau of Land Management (BLM) wind Energy program in this area is managed under the California Desert Conservation Area (CDCA) Plan of 1980, as amended. This plan allows for the consideration of wind energy proposals on all lands within the CDCA except those areas that are preliminarily recommended as suitable for wilderness designations. All public lands within the pass are available for wind energy proposals, however most of the available lands are developed.

A law suit brought by the City of Palm Springs against the BLM resulted in a settlement agreement, dated September 11, 1985, wherein the BLM agreed to, among other things, a setback of two thirds of a mile from highway 111 as the gateway to the City of Palm Springs.

The Riverside County Board of Supervisors recently created a 3,400 acre Scenic Resource Protection Area near the junction of Highway 111 and Interstate 10 inside the National Monument. Special permission from the County Board of Supervisors is now required prior to building any new wind turbines on private lands within this area.

Because of the topography of the area the potential for wind resource is very high as the area to the South of Highway 111 to the mountain slopes is located within the very best wind resource area. Due to the restrictions within the settlement agreement and the protection allowed by the County Board of Supervisors there can be no wind energy projects allowed on any public lands located within these areas of the National Monument.

Solar Energy. Solar thermal systems are largely limited to private lands for heating domestic water and swimming pools.

Geothermal Energy. Geothermal resources are plentiful in the northwestern portion of the Coachella Valley, outside of the National Monument planning boundary. Geothermal hot springs in Desert Hot Springs are structurally controlled by faults and largely focused along the Mission Creek fault. The geothermal energy produced in Desert Hot Springs, which is primarily used for commercial spas and therapeutic pools, is harnessed on private land and does not affect lands administered by BLM.

3.F. Educational Resources

There has been strong public support for the establishment of the National Monument. Likewise, there is a strong interest in and demand for interpretation and education. Public information is designed to promote protection and understanding of the National Monument's values and resources through increased awareness, appreciation and experience. The National Monument Interpretive Concept Plan (2002) provides guidelines for Interpretation and Educational programs within the National Monument.

Visitors to the National Monument generally come from the Coachella Valley and surrounding areas. While visitors may not originate there, the access to the higher elevations of the National Monument is primarily from the Valley. Visitors coming from the Valley use scenic corridors along California Highway 74 and California Highway 243 to reach higher elevations. Other access points to the National Monument are the Palm Springs Aerial Tramway and the Indian Canyons.

The Santa Rosa and San Jacinto Mountains National Monument Visitor Center, located off State Highway 74 south of Palm Desert, was dedicated in 1996 and is open to the public seven days a week. The Friends of the Desert Mountains provides volunteers and employees to help staff the center, which is a tourism gateway to the National Monument and the Coachella Valley. Interpretive materials are provided and educational programs are scheduled daily at the Visitor Center

There is a long history of partner agencies providing educational programming within and about the Santa Rosa and San Jacinto Mountains. The BLM, in cooperation with Friends of the Desert Mountains, offers field trips, class visits and special programs. The San Jacinto Ranger District Staff and the Forest Service Volunteer Association are active in outreach and fire prevention education. The Mt. San Jacinto State Park and the Mt. San Jacinto Natural History Association offer pre-visit packets to school groups and "ranger" talks and walks at the Palm Springs Aerial Tramway Mountain Station. The Palm Springs Aerial Tramway serves as a unique portal to Mt. San Jacinto, providing the opportunity to experience and amazing journey from the desert floor to the mountains. The Agua Caliente Tribe offers programs on traditional lifestyles and archaeology and

provides access to Indian Canyons, one of the most spectacular locations within the bounds of the National Monument.

The following are the current interpretive sites in or along the boundaries of the National Monument:

Forest Service, San Jacinto Ranger District

San Jacinto Ranger District Office: Backcountry Use Publications, Handouts, Exhibits

Overlook: Short trail signs

Verde Fire Station (hwy 243) CDF: Campground Information, Wildlife Interpretive Panels

Indian Vista Interpretive area: Cahuilla Information

Tewanet Overlook: Culture, Natural History Signs

Humber Park Trailhead: Wilderness, Backcountry Signs

BLM Palm Springs/South Coast Field Office

Santa Rosa and San Jacinto Mountains National Monument Visitor Center: Exhibits, Bookstore, Publications, Handouts, Maps, Interpretive trail, Kiosk

BLM Palm Springs Office: Orientation, General Information, Handouts, Maps

The following are the current interpretive sites by Partners in the National Monument:

Mt. San Jacinto State Park

District Office: General Information

Idyllwild campground: Orientation Information, Interpretive panel

Mountain Station: Park Wilderness Signs, Museum, Theater

Long Valley: Natural History Signs, Interpretive Trail

Agua Caliente Band of Cahuilla Indians

Tahquitz Canyon Visitor Center: Guided Walks, Exhibits, Video

Indian Canyons: Indian Canyons Culture, Area Uses Panels, Store

Agua Caliente Cultural Museum: Indian Culture Signs, Exhibits, Artifacts

Private sector

Tram Valley Station: Natural History and View Signs, Store

Palm Springs Desert Museum: Native flora/fauna Exhibits, Galleries, Theater. Arts, Exhibits

Living Desert Wildlife Park: Wildlife and botanical gardens from world's deserts

Coachella Valley Museum: Pioneer Culture Signs and Artifacts

Riverside County Parks: Natural & Cultural history Signs, Artifacts, Publications

An inventory of the Interpretive/Educational materials in or about the National Monument was completed during the development of the Interpretive Concept Plan (BLM/Forest Service 2002). The following listing includes the existing interpretive and educational materials about the lands within the National Monument produced by BLM, Forest Service and partner agencies as noted. This list is not cumulative and is a work in progress:

USDA Forest Service, San Jacinto Ranger District

San Bernardino National Forest Website
San Bernardino National Forest Visitor Guide
Recreation/outdoor guides
Hiking trails
Campgrounds
Adventure Pass
San Jacinto Ranger District What To Do/Where To Do It
San Jacinto Ranger District Some Wilderness Hikes
Guide to the Santa Rosa Wilderness
Guide to the San Jacinto Wilderness
San Bernardino National Forest Map
San Bernardino National Forest Explorers Guide (Tabloid for children)

BLM Palm Springs/South Coast Field Office

National Monument Website
Palm Springs and Borrego Valley District maps
Palm Springs Desert Access Guide
Hiking Trails
National Monument brochure
National Monument Visitor Center brochure
National Monument FAQ sheet
Environmental education curriculum

Jointly produced – Forest Service and BLM and Partners

Palms to Pines Recreation Guide
Interpretive Concept Plan (2002)

Agua Caliente Band of the Cahuilla Indians

Website
Indian Canyons brochure
Tahquitz Canyon brochure
Agua Caliente Cultural Museum brochure

Mt. San Jacinto State Park

Website
Information sheets on the state park and state park camping

Private sector

Coachella Valley Trails Council Scenic Area Map
Pacific Crest National Scenic Trail Map
Palm Springs Desert Resort Guide

The National Monument makes use of signs to share information. Currently a gateway sign is located on Highway 74 near the National Monument Visitor Center. There are plans in effect to place several more gateway signs at other locations around the National Monument boundary. In addition to interpretive signs located along Highways 74 and 243 and at trailheads already described in this section, signs are used to indicate Wilderness Areas, prohibit vehicle access and disallow dogs in bighorn sheep habitat. National BLM and Forest Service policies provide guidance concerning the rationale, placement, and design of signs with a focus on considerations for communicating information to the user.

3.G. Scientific Resources

The National Monument encompasses a large transect of habitats ranging from arid Colorado Desert through scrubland and pinyon-juniper woodlands to montane forests with a steep elevational gradient near the base of the north-facing escarpment of Mount San Jacinto. Biodiversity within the National Monument is correspondingly rich, and contains spectacular topography and geological features. Numerous archaeological resources are also found within the National Monument boundary. Physiological ecology, environmental physiology, behavior, and conservation biology of desert and mountain organisms have been the predominant research themes of research activities. Some specific scientific projects include: Health and demography of the Peninsular Ranges bighorn sheep (*Ovis canadensis cremnobates*), Mountain lion ecology; Rattlesnake ecology; Physiology of succulents; and Hybridization of quail species. Each of the values that the National Monument was established to protect (biological, cultural, recreational, geological, educational, scientific, and scenic) consist of a suite of disciplines for which the results of scientific study guide long term understanding.

One of the earliest scientific visitors, Edmund Huller, from the Musuem of Chicago, trapped and observed mammals throughout the canyons in 1903, traversing land that was to become the National Monument. Joseph Grinnell and Harry Swarath from the Museum of Vertebrate Zoology at the University of California at Berkeley also ventured into the area in 1908, describing a large population of bighorn sheep. The Grinnell and Swarath expedition of 1908 reached the area that would become Boyd Deep Canyon Research Center, located within the National Monument. The area was used by field classes for desert studies when Philip L. Boyd offered approximately a 1500 acre study site to the University of California in 1958. BLM assisted the land acquisition phase of the centers expansion. Past research facilitated through Deep Canyon has added to our understanding of the scientific resources of the area and has brought international recognition of the values that this protected desert canyon supports.

Current BLM and Forest Service scientific research management consists of providing permits for research when valid requests are received. Land use plan conformance (BLM Coachella Valley California Desert Conservation Area Plan (1980, as amended) and San Bernardino National Forest Plan (1989, as amended), habitat conservation objective, Land Health Standards and Forest Service Standards and Guidelines, as well as other applicable policies and regulations provide the framework under which research permits are awarded. Both basic research and applied research aiding in land management decisions are encouraged. Basic research that may have no apparent or direct application to land management has not been excluded in the past as BLM and Forest Service recognize the need for research into basic ecosystem process, structure, and function and that natural and relatively intact systems can provide. BLM and Forest Service require approval of the authorized officer for research activities conducted on BLM and Forest Service lands. Whenever required, all permits, authorizations, and/or licenses are issued at the discretion of the BLM and Forest Service authorized officer. Management of scientific research within Wilderness areas in the National Monument have additional management guidelines. Service manual guidance is described in this document in the Wilderness section 3.A of this Chapter.

3.H. Scenic Resources

The BLM and Forest Service both have existing systems for attributing classifications to areas of land based on scenic values.

BLM

The BLM has developed an analytical process that identifies, sets, and meets objectives for maintaining scenic values and visual quality. The Visual Resource Management (VRM) system functions in two ways. First, BLM conducts an inventory that evaluates visual resources on all lands under its jurisdiction (Inventory/Evaluation). Once inventoried and analyzed, lands are given relative visual ratings (Management Classifications). Class designations are derived from an analysis of Scenic Quality (rated by landform, vegetation, water, color, influence of adjacent scenery, scarcity, and cultural modification), a determination of Viewer Sensitivity Levels (sensitivity of people to changes in the landscape), and Distance Zones (visual quality of a landscape, as well as user reaction, may be magnified or diminished by the visibility of the landscape). Management Classes describe the different degrees of modification allowed to the basic elements of the landscape (form, line, color, texture).

Second, when a site-specific project is proposed, the degree of contrast between the proposed activity and the existing landscape is measured (Contrast Rating). The Contrast Rating process compares the proposed activity with existing conditions element by element (form, line, color, texture) and feature by feature (land/water surface, vegetation, structures). The Contrast Rating is compared to the appropriate Management Class to determine if contrasts are acceptable. If the proposed project exceeds the allowable contrast, a BLM decision is made to (1) redesign, (2) abandon or reject, or (3) proceed, but with mitigation measures stipulated to reduce critical impacts. The VRM Management Class Objectives are defined as follows:

Class 1: Natural ecological changes and very limited management activity are allowed. Any contrast created within the characteristic landscape must not attract attention. This classification is applied to wilderness areas, wild and scenic rivers, and other similar situations.

Class 2: Changes in any of the basic elements caused by management activity should not be evident in the characteristic landscape. Contrasts are visible, but must not attract attention.

Class 3: Changes to the basic elements caused by management activity may be evident, but should remain subordinate to existing landscape.

Class 4: Any contrast may attract attention and be a dominant feature of the landscape in terms of scale, but it should repeat the form, line, color, and texture of the characteristic landscape.

Class 5: This classification is applied to areas where natural character of the landscape has been disturbed to a point where rehabilitation is needed to bring it up to one of the four other classifications.

Through the California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002), non-wilderness BLM lands within the National Monument were designated as VRM Class 2. BLM wilderness lands within the National Monument were designated as VRM Class 1.

Forest Service

The Forest Service Scenery Management System (SMS) presents a vocabulary for managing scenery and a systematic approach for determining the relative value and importance of scenery in a National Forest. The system is used in the context of ecosystem management to inventory and analyze scenery in a national forest, to assist in establishment of overall resource goals and objectives, to monitor the scenic resource, and to ensure high-quality scenery for future generations. The Scenic Management System levels for the Forest Service land within the National Monument are being addressed in the San Bernardino National Forest Plan Revision (in progress) with the National Monument identified as a “place” which these values will be applied to.

The Scenic Management System identifies the following:

Landscape Character gives a geographic area its visual and cultural image and consists of the combination of physical, biological and cultural attributes that make each landscape identifiable or unique. The landscape character description establishes the current overall visual impression of a landscape, the physical appearance of the landscape that contributes to an identity and a “sense of place.” Scenic Attractiveness classes determine the relative scenic value of lands within a particular Landscape Character. The three classes are: Class A, Distinctive; Class B, Typical; Class C, Indistinctive.

Scenic Integrity indicates the degree of intactness and wholeness of the landscape character. Human alterations can sometimes raise or maintain integrity. More often it is lowered depending on the degree of deviation from the character valued for its aesthetic appeal. Scenic integrity objectives establish limits of acceptable human alterations as the landscape moves toward a landscape character goal.

The scenic integrity levels are:

VERY HIGH (Unaltered) – Preservation : VERY HIGH scenic integrity refers to landscapes where the valued landscape character “is” intact with only minute, if any, deviations. The existing landscape character and sense of place is expressed at the highest possible level.

HIGH (Appears Unaltered) - Retention : HIGH scenic integrity refers to landscapes where the valued landscape character “appears” intact. Deviations may be present but must repeat the form, line, color, texture, and pattern common to the landscape character so completely and at such scale that they are not evident.

MODERATE (Slightly Altered) - Partial Modification : MODERATE scenic integrity refers to landscapes where the valued landscape character “appears slightly altered.” Noticeable deviations must remain visually subordinate to the landscape character being viewed.

LOW (Moderately Altered) – Modification : LOW scenic integrity refers to landscapes where the valued landscape character “appears moderately altered.” Deviations begin to dominate the valued landscape character being viewed but they borrow valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles outside the landscape being viewed. They should not only appear as valued character

outside the landscape being viewed but compatible or complimentary to the character within.

VERY LOW (Heavily Altered) - Maximum Modification : VERY LOW scenic integrity refers to landscapes where the valued landscape character “appears heavily altered.” Deviations may strongly dominate the valued landscape character. They may not borrow from valued attributes such as size, shape, edge effect and pattern of natural openings, vegetative type changes or architectural styles within or outside the landscape being viewed. However, deviations must be shaped and blended with the natural terrain (landforms) so that elements such as unnatural edges, roads, landings, and structures do not dominate the composition.

UNACCEPTABLY LOW scenic integrity refers to landscapes where the valued landscape character being viewed appears extremely altered. Deviations are extremely dominant and borrow little if any form, line, color, texture, pattern or scale from the landscape character. Landscapes at this level of integrity need rehabilitation. This level should only be used to inventory existing integrity. It must not be used as a management objective.

3.I. Existing Land Use Designations

The BLM and Forest Service-managed public lands within the planning boundary have existing land use designations intended to provide management guidance and to protect natural and cultural resources. Land use designations addressed in this section include (1) Wild and Scenic Rivers, (2) Multiple Use Classifications, (3) Wilderness and Wilderness Management, (4) Farmlands, and (4) Grazing.

3.I.1 Wild and Scenic Rivers

In accordance with the Wild and Scenic Rivers Act of 1968 (Public Law 90-542), the BLM and Forest Service shall identify and evaluate all rivers that have potential for wild and scenic river designation. To be eligible for designation, a river must be free-flowing and contain at least one Outstandingly Remarkable Value (ORV), i.e., scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar value. A “river” means a flowing body of water or estuary or a section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes. “Free-flowing” is defined as “existing or flowing in a natural condition without impoundment, diversion, straightening, rip-rapping, or other modification of the waterway.” Rivers with intermittent or non-perennial flows may be eligible for designation.

Through the California Desert Conservation Area (CDCA) Plan Amendment for the Coachella Valley (BLM 2002), BLM analyzed the public land segment of Palm Canyon for eligibility as a Wild and Scenic River. It was determined that 1.2 miles of the river segment on public lands in Palm Canyon (T5S, R4E, Sec. 36, SBBM) are eligible for Wild and Scenic River designation. This segment was given a tentative classification of “scenic.” Outstandingly Remarkable Values of this segment are related to wildlife and cultural resources. BLM-managed segments of Palm Canyon provide habitat for Federal and State listed endangered species and State species of special concern, and contain several archaeological sites significant in Cahuilla oral history.

Once a river segment has been determined eligible and given a tentative classification as “wild,” “scenic,” and/or “recreational,” the land management agency is required to protect its free-flowing characteristics; protect, and to the degree practicable, enhance the Outstanding Remarkable Values which contribute to the river segment’s eligibility; and ensure that its eligibility or tentative classification will not be affected before a determination of its suitability or non-suitability as a Wild and Scenic River can be made. BLM determined through the CDCA Plan Amendment for the Coachella Valley (BLM 2002) that such protective measures are in place, thereby meeting the requirement, and eligibility of the identified BLM-managed river segment in Palm Canyon would not be compromised prior to a determination of its suitability or non-suitability as a Wild and Scenic River.

Forest Service is conducting an eligibility assessment for designation of Palm Canyon as a Wild and Scenic River as part of the process of updating the Land and Resource Management Plans for the Angeles, Cleveland, Los Padres, and San Bernardino Forests. The intermittent creek in Palm Canyon has many minor headwaters in the Vandeventer Flat area of the Santa Rosa Indian Reservation at 4,800 feet, T 7S, R 4 E, S 25, SBBM. The first approximately 4.0 miles of the creek flows north to northeast through the Reservation, crossing under State Highway 74. It then leaves Reservation lands, flowing through a parcel of private land for 1.3 miles. After that, it travels through National Forest within the National Monument for 7.8 miles, at which point it enters BLM lands at 2,000 feet at T6S, R4E, Sec. 1, SBBM.

3.1.2 Multiple-Use Classes

All of the public lands in the CDCA under BLM management have been designated geographically into four multiple-use classes (MUC). The classification is based on the sensitivity of resources and kinds of uses in each geographic area. Each MUC describes a different type and level or degree of use that is permitted within a particular geographic area. Multiple use class “C” guidelines summarize the kinds of management likely to occur in wilderness areas. Multiple use class “L” protects sensitive, natural, scenic, ecological, and cultural resource values. Public lands designated as class “L” are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished. Within the National Monument, the Santa Rosa Wilderness Addition is designated as Multiple-Use Class “C” (Controlled Use) and non-wilderness BLM lands within the National Monument are classified as Multiple-Use Class “L” (Limited Use) in accordance with the CDCA Plan (1980, as amended).

3.1.3 Wilderness and Wilderness Management

The National Monument contains one BLM-managed wilderness area—Santa Rosa Wilderness Additions—and two Forest Service-managed wilderness areas—Santa Rosa Wilderness and San Jacinto Wilderness. Like all other Federal wilderness areas, these areas are managed in accordance with the Wilderness Act of 1964 (Public Law 88-571; September 3, 1964), and the enabling legislation.

Table 3-7. Wilderness Areas within the National Monument

| WILDERNESS AREA | BLM or FS ACRES |
|---------------------------|--------------------|
| FS San Jacinto Wilderness | 19,470 |

| | |
|-------------------------------------|--------|
| FS Santa Rosa Wilderness | 19,431 |
| BLM Santa Rosa Wilderness Additions | 47,794 |

BLM: Santa Rosa Wilderness Additions. On October 31, 1994, Congress enacted the California Desert Protection Act (CDPA; Public Law 103-433), thereby designating certain lands in the California desert as wilderness in furtherance of the purposes of the Wilderness Act and Sections 601 and 603 of FLPMA. Of the 69 areas designated as BLM wilderness through the CDPA, one occurs within the National Monument: the Santa Rosa Wilderness Additions (Figure 4), located at the southern end of the Coachella Valley. This wilderness exhibits very few imprints of man and affords outstanding opportunities for solitude and primitive recreation. Total BLM managed land equals 47,794 acres; however, the designated boundary including non BLM managed land and other management equals 71,425 acres. Resource values include habitat for Peninsular Ranges bighorn sheep, mule deer, mountain lions, desert slender salamander, and many bat species. This steep, rugged wilderness contains a diversity of natural communities, including Sonoran creosote bush scrub, desert dry wash woodland, semi-desert chaparral, and pinion pine-juniper woodland. (Figure 4)

Forest Service: San Jacinto Wilderness. The San Jacinto Wilderness was established under the Wilderness Act of 1964. The California Wilderness Act of 1984 (Public Law 98-425, September 28, 1984) added 10,900 acres to the wilderness area. The San Jacinto Wilderness, located in the northern portion of the National Monument, offers opportunities for rock climbing, hiking, backpacking, or riding horses. Mount San Jacinto State Park is located in the heart of the area, separating this wilderness into two distinct sections. The southern portion of the wilderness is extremely popular with visitors, and overcrowding occurs in some areas. Opportunities for solitude are greater in the northern portion of the wilderness where visitor use is lighter. (Figure 4)

Forest Service: Santa Rosa Wilderness. The Santa Rosa Wilderness was established through the California Wilderness Act of 1984. In the southern portion of the National Monument, it offers opportunities for solitude, as visitor use is light in this area. (Figure 4)

Wilderness Management

As previously indicated, Federal lands within designated wilderness are managed in accordance with the Wilderness Act of 1964, as well as the enabling legislation. Congress mandated that wilderness areas be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness. Further, these areas are to be managed to retain their primeval character and influence, without permanent improvements or human habitation, so as to preserve natural conditions.

Both the BLM and Forest Service have developed regulations governing management of Federal lands within designated wilderness. BLM regulations for wilderness management are found at Title 43 of the Code of Federal Regulations (CFR) Part 6300. Forest Service regulations are found in the Forest Service Manual. Both agencies have

also prepared guidance to managers (in the form of manuals) for making decisions when faced with various resource management challenges, e.g., installation of wildlife water guzzlers (permanent structures) to support an endemic wildlife species (a wilderness value) that has been adversely affected by man's activities. A summary of some of the BLM and Forest Service manual guidance for certain relevant activities is described in Appendix H.

The following provisions under Title 1, Section 103, of the California Desert Protection Act are particularly relevant to the National Monument Plan for BLM-managed wilderness (Santa Rosa Wilderness Additions):

- ▶ Subject to valid existing rights, each wilderness area shall be administered in accordance with the provisions of the Wilderness Act.
- ▶ The Congress does not intend for the designation of wilderness areas to lead to the creation of protective perimeters or buffer zones around any wilderness area. The fact that non-wilderness activities or uses can be seen or heard from areas within a wilderness area shall not, of itself, preclude such activities or uses up to the boundary of the wilderness area.
- ▶ As provided in section 4(d)(7) of the Wilderness Act, nothing in the CDPA shall be construed as affecting the jurisdiction of the State of California with respect to wildlife and fish on public lands.
- ▶ Management activities to maintain or restore fish and wildlife populations and the habitats to support such populations may be carried out within wilderness areas and shall include the use of motorized vehicles by the appropriate State agencies.
- ▶ Nothing in the CDPA may be construed to preclude Federal, State, and local law enforcement agencies from conducting law enforcement operations as permitted before the date of enactment of the CDPA, including the use of motorized vehicles and aircraft, on any lands designated as wilderness.

3.1.4 Farmlands

Although farming does occur extensively near the National Monument, these farms are all located on private lands, and not on BLM or Forest Service-managed public lands.

3.1.5. Livestock Grazing

No grazing allotments currently exist on BLM lands within the National Monument . Cattle grazing in what is now known as the San Bernardino National Forest has been practiced by many groups of people, including the native Cahuilla Indians. In 1891, President Benjamin Harrison signed the Forest Reserve Act, which led to the creation of the San Jacinto Forest Reserve on February 22, 1897. In 1905, President Theodore Roosevelt transferred the direction of the Bureau of Forestry from the US Department of Interior to the US Department of Agriculture. Later that same year, the Bureau of Forestry was renamed US Forest Service. The Forest Service under the direction of Gifford Pinchot, began an aggressive management of the forest reserves. In 1906, the first grazing permit system was instituted. This was in sharp contrast to the complete ban on grazing several years earlier, but it was Pinchot's belief that the forest should be managed for public use. The first grazing permit held in part by the Wellman Family was in 1907, shortly after the grazing permit system was initiated. This permit was issued for 80 head of cattle and 6 horses.

Prior to the establishment of the Taylor Grazing Act of 1934, cattle were allowed to range over any and all portions of suitable lands. After enactment of the Taylor Grazing Act of 1934, “open range” grazing use became restricted to geographical areas allotted to livestock permittees based on historical or current grazing use. Currently, the US Forest Service may issue term and/or temporary grazing permits to qualified permittees on a fee for use basis. Issuance of permits is based upon a series of requirements, including animal unit months (AUM), forage capacity and species composition, conservation measures to ensure sustained use, while minimizing resource damage.

Wellman Allotment. The 15,000 acre Wellman Allotment is the only USDA Forest Service grazing allotment within the Santa Rosa and San Jacinto Mountains National Monument planning area. The Wellman Allotment covers approximately 10,333 acres of the National Monument. The Wellman Allotment encompasses most of the Forest Service Lands within the National Monument east of Palm View and Pyramid Peaks, west of Palm Canyon, and north of Highway 74. Elevations vary between 2,600 and 7,000 feet, providing both low elevation winter range and high elevation summer range.

The grazing allotment has a year-round season of use on perennial forage with additional grazing capacity on ephemeral forage when it is seasonally available above a pre-determined threshold of 300 - 400 pounds (dry weight) per acre in chaparral, pinyon-juniper, and hardwood vegetation. In conifer forests, the residual forage standard is 400 – 600 pounds (dry weight) per acre (LRMP SG- 25,26,27). The allotment is divided into a series of pastures that are grazed at different times of the year depending on elevation and forage conditions. Water is available on the allotment in strategic locations where the cattle may still move between grazing areas. The allotment contains a number of range improvements, including wells, improved springs, fences and corrals.

The Forest Service’s grazing season starts on March 1 and concludes the last day of February of the following year. All grazing activities are to be carried out in conformance with the grazing regulations, standards for rangeland health, guidelines for grazing management, the allotment management plan, and direction provided within the Land and Resource Management Plan. Current grazing activities are further constrained by management directions for the endangered bighorn sheep in the peninsular ranges and their habitat as set forth in the Biological and Conference Opinions on the Continued Implementation of Land And Resource Management Plans for the Four Southern California National Forests completed in 2001. Approximately 3,176 acres, primarily in the Palm Canyon area, of the Wellman Allotment are within bighorn sheep critical habitat.

Grazing Activities. The area encompassed by the current Wellman Allotment has been grazed by Wellman owned cattle since the 1860's. The first grazing permit held in part by the Wellman Family was in 1907, shortly after the grazing permit system was initiated. The following table summarizes the history of this allotment from 1980 to the present:

Table 3-8. History of the Wellman Allotment

| Year | Season | # Head |
|-------------|---------------|---------------|
| 1980 | 3/1-2/28 | 35 |
| 1981 | 3/1-2/28 | 50 |
| 1982 | 3/1-2/28 | 55 |
| 1983 | 3/15-2/29 | 62 |
| 1984 | 3/15-2/28 | 62 |
| 1985 | 3/15-2/28 | 68 |
| 1986 | 3/1-2/28 | 75 |
| 1987 | 3/1-2/29 | 75 |
| 1988 | 3/1-2/28 | 75 |
| 1989 | 3/1-2/28 | 75 |
| 1990 | 3/1-2/28 | 30 |
| 1991 | 3/1-2/29 | 30 |
| 1992 | 3/1-2/28 | 40 |
| 1993 | 3/1-2/28 | 40 |
| 1994 | 3/1-2/28 | 45 |
| 1995 | 3/1-2/29 | 45 |
| 1996 | 3/1-2/28 | 45 |
| 1997 | 3/1-2/28 | 45 |
| 1998 | 3/1-2/28 | 45 |
| 1999 | 3/1-2/29 | 45 |
| 2000 | 3/1-2/28 | 45 |
| 2001 | 3/1-2/28 | 45 |
| 2002 | 3/1-2/28 | 30 |

Most of the Wellman Allotment is characterized by rugged, remote terrain. Although there are several private in-holdings within the allotment boundaries, cattle have had access to these areas through various agreements between the Wellman family and adjacent private landowners. Riverside County is considered a “closed range” ordinance county. Under this ordinance, it is the livestock operators responsibility to keep livestock from entering adjacent Federal or private lands. In any case, when livestock enter adjacent lands from National Forest System lands, the Forest Service is not liable for damages. The livestock owner is responsible for any damages to private land, according to the county ordinance establishing the closed range.

Grazing Administration. The Forest Service conducts a series of actions to authorize livestock grazing use. Depending on the type of lease, livestock producers apply to graze livestock annually or as a term permit. Grazing use is permitted with written authorization, and terms and conditions for grazing use are listed as necessary. The Forest Service conducts field visits throughout the grazing period to ensure grazing use is occurring as authorized. Range improvements are inspected as prescribed to determine condition and future utility.

On February 28, 2000, the permit for the Wellman Allotment reached its termination date. The annual allotment plan (1977) was out of date and the permit was scheduled for NEPA analysis prior to re-issuance. The US Forest Service was unable to adhere to the 1996 NEPA schedule, where analysis was to be initiated in 2000, and revised the analysis calendar to start in 2004. On May 5, 2000, the permit held by the Wellman Family Trust was reissued under the Recission Act of 1995. Under the Act, the permit "shall be issued on the same terms and conditions and for the full term of the expired or waived permit. Upon completion of the scheduled NEPA analysis and decision for the allotment, the terms and conditions of [the existing permit] may be modified or re-issued, if necessary to conform to such NEPA analysis".

In 2001, two Biological Opinions reorganized the way the Wellmans utilized the allotment. The Biological and Conference Opinions on the Continued Implementation of Land and Resource Management Plans for the Four Southern California Forests, as Modified by New interim Management Direction and Conservation Measures set management directions for bighorn sheep conservation. These directions included:

135_{MD} Prohibit cattle grazing on NFS lands in key bighorn sheep habitat.

136_{MD} Follow fence specifications in USDI – BLM (1989) when constructing livestock fences within or immediately adjacent to key Peninsular bighorn sheep.

Additionally, the Biological Opinion on Four Grazing Allotments on the San Bernardino National Forest directed changes to use of riparian areas on allotments in order to protect the southwestern willow flycatcher (*Empidonax trillii extimus*), a federally listed endangered species. Several key riparian areas on the Wellman Allotment were precluded from cattle use. Fobes Canyon and Live Oak Canyon were identified as containing several acres of suitable riparian habitat. Exclosures of several acres (22 acres in total) were constructed round Fobes and Live Oak creeks to prevent cattle access and use of these areas. Exclosures are monitored for changes in vegetation to assess the effects of grazing in the surrounding vegetation. The following direction guides grazing management on Forest Service lands:

- Develop, maintain, and administer allotment management plans for all allotments in
- consultation, cooperation, and coordination with the grazing permittee and adjacent landowners and other agencies. Standard and Guideline: a. Use R-5 FSM 2209.2 guideline. Update annually with permittee consultation. b. Retain the following residual forage, well distributed throughout the grazed acres: 300 to 400 lbs/ac in chaparral, pinyon-juniper and hardwoods; 400 to 600 lbs/ac in conifer.#2. Maintain structural range improvements in serviceable, safe and attractive condition.
- Actively manage for proper livestock distribution via structural and nonstructural range improvements and with other proven management techniques.

- Utilize grazing as a vegetation management tool where compatible with other resources.
- Coordinate where needed with the US Fish and Wildlife Service and appropriate State and county wildlife and plant agencies, for animal damage and plant control.

3.J. Air Quality

3.J.1. Background

Under the Clean Air Act as Amended (1990), National Ambient Air Quality Standards have been developed by the EPA. These standards are used to classify areas as to whether they are in attainment, in non-attainment, or are unclassified for any of the air quality standards. Areas that are classified as non-attainment areas are required to prepare and implement a State Implementation Plan that identifies and quantifies sources of emissions and provides a strategy to reduce emissions. Under the Clean Air Act conformity rules (CAA 176(c) and 40 CFR part 51 subpart W), activities on BLM-managed lands in a non-attainment area must conform to the applicable State Implementation Plan.

The air quality of a particular locale is based on the amount of pollutants emitted and dispersed, and climatic conditions that may reduce or enhance the formation of pollutants. In the National Monument planning area, the South Coast Air Quality Management District (SCAQMD), is the responsible agency for monitoring air quality, and developing and enforcing regulations intended to achieve State and Federal air quality standards. California has also set statewide emission limitations for odor or unhealthful emissions, visible emissions, open burning, sandblasting, gasoline vapors, and incineration of toxics.

Suspended particulate matter is the most serious air quality issue faced by the region, which occasionally exceeds both state (>50 g/m³ or 50 micrograms per cubic meter) and federal (>150 g/m³) standards for PM₁₀. PM₁₀ refers to small suspended particulate matter, 10 microns or less in diameter, which can enter the lungs. These small particles can be directly emitted into the atmosphere as a by-product of fuel combustion; through abrasion, such as wear on tires or brake linings; or through wind erosion of soil. Mining operations, OHV use, and grazing all contribute to PM₁₀ levels. They can also be formed in the atmosphere through chemical reactions. Carcinogens and other toxic compounds can stick to the particle surfaces and enter the lung. PM₁₀ is reduced directly by controls on fugitive dust and indirectly by controls on all other pollutants which contribute to the formation of particles.

Another measurement of air quality is the level of ozone, which is formed by photochemical reactions between oxides of nitrogen and volatile organic compounds (VOC). VOCs are formed from the incomplete combustion of fuels and from evaporation of organic solvents. Elevated ozone levels in the air we breathe (as opposed to the upper atmosphere where it protects us from harmful radiation) result in reduced lung function, particularly during vigorous physical activity. Reducing ozone levels involves controlling both NO_x and VOC emissions. NO_x controls were described above. Typical VOC controls include reducing the VOC content of paints and solvents, and controlling fumes from gasoline pumping, auto body painting, furniture finishing, and other operations that involve organic chemicals and solvents.

The SCAQMD is under a legal obligation to make and enforce air pollution regulations. These regulations are primarily meant to ensure that the surrounding (or ambient) air will meet National Ambient Air Quality Standards and state air quality standards for concentration and duration for which air pollutants may negatively affect health. SCAQMD also has broad authority to regulate toxic and hazardous air emissions, and these regulations are enforced in the same manner as those that pertain to the ambient air quality standards. In addition, SCAQMD must meet California standards for hydrogen, sulfide, sulfates, and vinyl chloride, as well as state standards for visibility.

SCAQMD currently monitors ambient air quality, including PM₁₀ concentrations, at two air monitoring stations in the Coachella Valley (Palm Springs and Indio). These ambient air standards are health-based and concern the following five air contaminants: ozone, nitrogen dioxide, carbon monoxide, and fine particulate matter (PM₁₀ and PM_{2.5}). These standards are designed to protect the most sensitive persons from illness or discomfort with a margin of safety. The Indio site has been operational since 1985, and the Palm Springs site has been operational since 1987. The particulate sampling frequency at both monitoring stations is once every three days.

Based on monitoring reported in the 1996 Coachella Valley State Implementation Plan, approximately 53 tons of PM₁₀ were released into the atmosphere in Coachella Valley on an average day in 1995. Of these, one percent was caused by fuel combustion, waste burning and industrial processes. Man-made and natural dust-causing activities, such as agricultural tilling in fields, construction and demolition operations, or driving on paved or unpaved roads account for 96%. Less than three percent of Coachella Valley's emissions are caused by mobile source tailpipe and brake/tire wear emissions. Mountain communities would have a lower release due to a significantly lower population, less roads therefore less fuel consumption and the geographical difference of a valley versus mountain setting.

3.J.2. Current Regulatory Status

In November 1990, amendments to the federal Clean Air Act were signed into law, setting into motion new statutory requirements for attaining federal National Ambient Air Quality Standards for PM₁₀. All areas in the United States that were previously designated as federal non-attainment areas for PM₁₀, including the Coachella Valley, were initially designated as "moderate" PM₁₀ non-attainment areas. Under Section 189(a) of the Clean Air Act, revisions to the State Implementation Plans for PM₁₀ were due by November 15, 1991, incorporating "reasonably available control measures" for PM₁₀ and indicating an attainment date. In response to these requirements, the South Coast Air Quality Management District adopted the "State Implementation Plan for PM₁₀ in the Coachella Valley" (1990 CVSIP) in November 1990. The 1990 CVSIP identified candidate control measures and demonstrated attainment of the NAAQS for PM₁₀ by the year 1995, one year after the statutory limit for moderate non-attainment areas. The Clean Air Act, Section 188(b) specifies that any area that cannot attain the standards by December 1994 would subsequently be re-designated as a "serious" non-attainment area.

In January 1993, the U.S. Environmental Protection Agency completed its initial re-designation process, and included the Coachella Valley among five nationwide areas re-designated as "serious" effective February 8, 1993. The Mountain communities were not included in this action. Section 189(b) of the Clean Air Act further specifies that a State Implementation Plan revision is due within 18 months of the re-designation (August 8,

1994). The revision must assure that "best available control measures" will be implemented and a demonstration of attainment will be submitted within four years of the re-designation date (February 8, 1997). In response to the Clean Air Act requirements for "serious areas", the South Coast Air Quality Management District prepared a State Implementation Plan revision (1994 CVSIP) that identified candidate "best available control measures" for implementation prior to February 8, 1997.

The Clean Air Act also allows an extension of the attainment date for up to five years provided that: (1) all previous state implementation plan (SIP) commitments have been implemented; (2) a demonstration that attainment by 2001 is not practicable; (3) documentation that all feasible Most Stringent Measures (MSM) are being implemented; and (4) a demonstration that the expected attainment date is the most expeditious date practicable.

Section 107 (d)(3)(E) of the Clean Air Act states that an area can be re-designated to attainment if, among other requirements, the U.S. Environmental Protection Agency (EPA) determines that the National Ambient Air Quality Standards have been attained. The EPA guidance further states that a determination of compliance with the National Ambient Air Quality Standards must be based on three complete, consecutive calendar years of quality-assured air quality monitoring data. In applying U.S. EPA's Natural Events Policy, the 1996 Coachella Valley State Implementation Plan determined that the Coachella Valley had not violated either the 24-hour or annual average PM₁₀ standards during the three calendar years 1993 through 1995. Accordingly, the South Coast Air Quality Management District requested a re-designation of the Coachella Valley to attainment for PM₁₀.

From 1999 through 2001, however, PM₁₀ dust levels rose sufficiently to exceed the annual average PM₁₀ standard of 50 g/m³, and standards for ozone. The Indio monitoring site exceeded the PM₁₀ annual average standard from 1999 to 2001. Palm Springs, on the other hand, is within both standards. Special monitoring at other sites confirmed that PM₁₀ standards are exceeded throughout Coachella Valley. The region continues to be designated a "serious" non-attainment area for PM₁₀. Should the region continue to fall short of federal PM₁₀ standards, the U.S. EPA could impose more stringent regulations or sanctions on local jurisdictions.

In an effort to remedy this situation, the South Coast Air Quality Management District developed "Guidelines for Dust Control Plan Review in the Coachella Valley" (2001) which are intended to provide guidance for activities that are required to prepare a fugitive dust control plan. The 2002 Coachella Valley PM₁₀ State Implementation Plan (2002 CVSIP) has been prepared for the planning area which identifies sources of PM₁₀ and control measures to reduce emissions. There also are a set of rules (400 series) designed to limit area and point source particulate emissions and fugitive dust in the Coachella Valley. In developing an air quality management strategy to meet State and Federal standards on public lands, the BLM took into consideration guidelines, rules and State Implementation Plans prepared by the South Coast Air Quality Management District. A description of the BLM's air quality management strategy, and measures embodied in the 2002 CVSIP are provided in Appendix I.

3.K. Water Resources

Climate, Precipitation and Flooding Potential. The San Bernardino, San Jacinto, and Santa Rosa Mountains effectively isolate the Coachella Valley from moist, cool maritime air masses coming on shore from the west. As a result, the desert portions of the National Monument are characterized by a subtropical desert climate with hot, dry summers and mild winters. Mean annual rainfall is very low on the valley floor, typically ranging from three to six inches per year. In some years, no measurable rainfall has been reported. Typically, there is little or no streamflow in regional drainages, as climatic and drainage conditions are not conducive to continuous runoff. However, runoff and occasional flooding do occur during and immediately following rainstorms.

The mean annual precipitation on the lower slopes of the San Jacintos and on the majority of the Santa Rosa Mountains is between 4 to 20 inches, with the majority being rain. The climate is hot and semi-arid to subhumid. Mean annual temperature is about 55° to 70° F, with the number of days of non-freezing weather being about 200 to 275 days. At the highest elevations in the National Monument, nearest to San Jacinto Peak, the climate is temperate to cold, and subhumid; it is affected by elevation much more than by marine influences. The mean annual precipitation is about 16 to 30 inches. It is mostly rain at lower and snow at higher elevations. Mean annual temperature is about 40° to 58° F with the number of non-freezing days ranging from 150 to 225 days. Runoff from the mountain slopes is rapid. The streams are dry through the summer. They drain to the Salton Trough or sink into the ground before reaching the Salton Trough. There are no lakes in the National Monument.

Precipitation generally occurs during winter months, from November through March. However, high-intensity thunderstorms can also occur from mid-summer through early fall. Such storms are capable of generating substantial quantities of rainfall in short periods of time, thereby increasing the risk for flash floods. Flash flooding is generally limited to washes extending from canyons, floodways and floodplains adjacent to rivers and streambeds, and low-lying drainages. However, flooding on alluvial fans can be particularly damaging because floodwaters move at high velocities and spread across wide, unchannelized areas.

Flooding can also result when unusually warm temperatures in early spring cause the snow pack on the San Jacinto mountains to melt quickly. The water is usually absorbed by porous sands and gravels on the valley floor. However, if surface sediments are already saturated, additional runoff can remain on the surface and result in minor to major flooding.

Historic weather reports indicate that major storm events have occurred in the Coachella Valley. Benchmark storms recorded by the Army Corps of Engineers include the storm of September 24, 1939, which was centered over Indio and generated 6.45 inches of rain in a 6-hour period. Tropical storm Kathleen, which occurred on September 9–11, 1976, generated heavy rainfall in Riverside, San Bernardino, and Imperial Counties. Rain falling in the mountains and hillsides of the Coachella Valley has the potential to cause extensive flooding and property damage down slope.

Whitewater River Basin. The fluvial system of the Coachella Valley consists largely of ephemeral stream channels or washes, which originate in the surrounding mountains and drain into large alluvial fans that spread onto the valley floor. Most runoff is

generated within the San Bernardino, Little San Bernardino, and San Jacinto Mountains west and north of the valley.

The Whitewater River is the primary drainage facility for the Coachella Valley. It emanates from the San Bernardino Mountains at the northwesterly edge of the planning area, flows southeast to La Quinta, northeast to Indio, and drains into the Salton Sea. It extends a total of 70 miles and drains an area containing roughly 400 square miles of valley land and 1,550 square miles of mountains ranges, including the San Bernardino, Little San Bernardino, San Jacinto, and Santa Rosa Mountains. Its tributaries are numerous and include the following: San Gorgonio River, Palm Canyon Creek, Deep Canyon Creek, Palm Valley Channel, Thousand Palms Canyon, West Wide Canyon, East Wide Canyon, Deception Canyon, Edom Hill Creek, Pushwalla Canyon, Snow Creek, Dead Indian Creek, Magnesia Springs, Cathedral Creek, Andreas Creek, Chino Creek, Tahquitz Creek, Bear Creek, and Mission Creek.

Roughly from Windy Point to Indian Avenue, the Whitewater River channel broadens into a low-lying floodplain that measures more than a mile in width. As it nears Cathedral City, the Whitewater River narrows and becomes a partially improved channel known as the Whitewater River Stormwater Channel, which protects urban development from potential flooding. East of Washington Street in La Quinta, the Whitewater River consists of a man-made channel known as the Coachella Valley Stormwater Channel.

FEMA Flood Hazard Areas. The Federal Emergency Management Agency (FEMA) is responsible for the analysis and mapping of areas prone to major flooding in the United States. Within the Coachella Valley, the 100-year floodplain generally occurs on and at the base of washes and alluvial fans, such as Mission Creek and the Morongo Wash in Desert Hot Springs, the Magnesia Springs Canyon alluvial fan in Rancho Mirage, and along Little Morongo, Big Morongo, and Smith Canyon Creeks in the Morongo Valley portion of the planning area. It is also contained within man-made channels, such as the Whitewater River/Coachella Valley Stormwater Channel and the La Quinta Evacuation Channel. Areas of 500-year flood inundation typically occur adjacent to the outer edges of the 100-year floodplain. Higher-elevation hills and mountain slopes are subject to only minimal flooding, as are those portions of the central valley floor, which occur at some distance from canyons and washes.

Stormwater Management Responsibilities. Regional stormwater management in the Riverside County portion of the CDCA planning area is the responsibility of the Coachella Valley Water District (CVWD) and the Riverside County Flood Control and Water Conservation District. The Coachella Valley Water District encompasses nearly 640,000 acres, primarily within eastern Riverside County, but also extending into Imperial and San Diego Counties. The Whitewater River/Coachella Valley Stormwater Channel is CVWD's principal stormwater management facility in the Coachella Valley. The Riverside County Flood Control and Water Conservation District has jurisdiction over approximately 2,700 square miles, primarily in western Riverside County, but including the westerly portion of the Coachella Valley and Anza-Borrego area near the National Monument planning area. It owns and operates 40 dams and several hundred miles of storm drains, channels and levees. Individual cities are responsible for smaller-scale, localized stormwater management issues within their boundaries, including the construction of storm drains on urban streets and site-specific detention/retention basins.

Flood Management Improvements. A wide range of regional flood control improvements, including dams, debris basins, and concrete-lined channels, have been constructed throughout the Coachella Valley in an effort to protect life and property from flooding hazards, particularly the 100-year flood. Smaller-scale improvements have been constructed to protect specific neighborhoods and communities from flood flows and to convey mountain runoff to the Whitewater River.

Stormwater Runoff Pollution Control. Runoff from developed land has the potential to contaminate and introduce pollutants to surface and ground waters. The federal Clean Water Act of 1972 establishes a strategy to restore and maintain water quality by reducing “point source pollution,” including pollutants from industry and sewage treatment facilities. Section 404 of the Act grants the U.S. Army Corps of Engineers with the authority to evaluate and approve development projects that could potentially impact waters of the United States.

In 1987, amendments to the Clean Water Act shifted the focus of polluted runoff and required states to reduce discharges to the waters of the United States. These amendments required the U.S. Environmental Protection Agency to formally regulate polluted runoff utilizing a permit system under the National Pollutant Discharge Elimination System (NPDES). The NPDES program requires communities to apply for municipal permits to eliminate or control “non-point source pollution.” In California, the state is responsible for administering the NPDES permitting program. In the planning area, this task is the responsibility of the Colorado River Basin Regional Water Quality Control Board.

The environment of the National Monument is a result of a complex interplay between its geophysical and geographic location. The Coachella Valley portions of the National Monument is part of the Colorado Desert system, and receives between three and six inches of rainfall annually. At the same time, the Coachella Valley portions of the National Monument hold water captured by the Santa Rosa and San Jacinto mountain ranges. There are various challenges facing the National Monument with regard to water issues, including:

- ▶ availability of water sources for bighorn sheep during summer months and the need for artificial watering holes;
- ▶ extent and timing of noxious weed removal, especially tamarisk, to protect ground water supplies and sheep watering holes;
- ▶ availability of water sources for both facilities and visitor use within the National Monument as well as for residents within and near the National Monument
- ▶ initiating state approved nonpoint source management measures and helping to achieve federal standards for water quality as established by the 1997 Clean Water Action Plan.

The venturi effect caused by the meeting of the San Geronio and San Jacinto mountain ranges, brings strong winds to the Valley. While key to the Valley’s blowsand habitat, and as a source of renewable wind energy, these winds also bring air pollution from the Los Angeles Basin. Moreover, the blowsand raises particulate matter concerns.

Hydrologic Units. The planning area is located within the Colorado River Basin Region. The basin is divided into planning regions. The Salton Sea Planning Area, the Anza - Borrego Planning Area, and the Coachella Valley Planning Area are all within the

National Monument planning boundary. The planning areas contain subwatershed basins also called hydrologic units. The Salton Sea Planning Area and Hydrologic Units consists entirely of the Salton Sea which is a saline body of water between the Imperial and Coachella Valleys. The climate is arid and the average precipitation is 2.6 inches. The replenishment is from farm drainage and seepage, as well as significant storm events. A small segment of the Anza-Borrego Planning Area and Hydrologic Units resides within the boundary of the National Monument planning area under consideration. The Coachella Valley Planning Area and Hydrologic Units encompasses the Coachella Valley watershed proper.

Uses of water that support terrestrial ecosystems including, but not limited to, the preservation and enhancement of terrestrial habitats, vegetation, wildlife water and food sources are considered beneficial uses of water by the Water Quality Control Plan. This aspect of the plan provides an important connection between state water goals and the Bureau's own goals for supporting plant and wildlife habitat.

Watersheds. According to the most recent EPA's Index of Watershed Indicators (National Watershed Characterization, 1999), the Salton Sea Watershed was rated as the following:

- (1) Watershed with More Serious Water Quality Problems = Watersheds with aquatic conditions well below State or Tribal water quality goals that have serious problems exposed by other indicators, and
- (2) Watershed with Lower Vulnerability to Stressors = Watersheds where data suggest pollutants or other stressors are low, and, therefore there exists a lower potential for future declines in aquatic health. Actions to prevent declines in aquatic conditions in these watersheds are appropriate but at a lower priority than in watersheds with higher vulnerability.

Springs. Springs are also common in the Santa Rosa and San Jacinto Mountains area; some of these are seasonal springs. Springs are vital to wildlife seeking water in the hot summer months.

Surface Water. Surface water is most abundant in rivers and snowmelt coming from the Santa Rosa and San Jacinto Mountains.

Groundwater. Increased urbanization and accompanying recreational water usage in addition to desert agriculture has been reducing the level of the groundwater aquifer. Snowmelt from the San Jacinto Mountains adds to the groundwater.

Perennial and Intermittent Streams. Visible only as dry desert washes for most of the year, "intermittent" streams provide habitat for a number of species. Streams also provide the means for seed dispersal of exotic plants such as tamarisk.

Best Management Practices. According to the Best Management Practices (BMP) outlined by the USDA Forest Service, existing and potential non-point potential water pollution sources will be identified and evaluated to determine the need for and type of treatments necessary to maintain water quality. Lands found to be in need of watershed

improvement work will be scheduled for treatment as part of ongoing work/planning/budgeting process.

BMP's are designed to synthesize a number of directives into a process to be followed when addressing water quality of management areas. Each BMP consists of (1) objectives, (2) an explanation with general considerations which are incorporated into the planning process of project design and (3) implementation guidelines. For example, prior to initiation of road construction activities, a BMP concerning the timing of construction would be implemented to minimize erosion and sedimentation. An additional BMP to control traffic during wet periods would further aid in limiting the potential damage to water quality.

3.L. Noise

Noise has long been accepted as a byproduct of urbanization, but only recently has it received much social attention as a potential environmental hazard. Excessive and/or sustained noise can contribute to both temporary and permanent physical impairments, such as hearing loss and increased fatigue, as well as stress, annoyance, anxiety, and other psychological reactions in humans.

The most common unit used to measure noise levels is the A-weighted decibel (dBA), which is a measurement of the noise energy emitted from a monitored noise source. The A-weighted frequency scale has been adjusted to correlate noise or sound to the hearing range of the human ear, and ranges from 1.0 dBA at the threshold of hearing, to 140 dBA at the threshold of pain.

The existing noise environment in the planning area varies depending upon location, but ranges from very quiet in remote, wilderness areas to moderate on or adjacent to urban lands. The noise environment in the urban area of the Coachella Valley, from Palm Springs on the west to on the east, is consistent with that of a low to medium-density, suburban community.

Motor Vehicle Noise. Noise monitoring and modeling data conducted within the planning area indicate that the primary noise source is motor vehicle traffic on highways and major arterials. The level of noise generated varies with traffic volume, vehicular speed, truck mix, and roadway cross-section and geometric design. Typically, the greater the vehicle speed and truck mix, the greater the level of noise.

Traffic along State Highway 74 and Highway 243 which pass through the National Monument planning area generate moderate noise levels during daytime hours, but these levels are expected to drop considerably at night. Most BLM and Forest Service lands are remote and distant from major highways and arterials. Occasional noise from motor vehicle traffic may be generated on access roads; however, noise levels are extremely limited due to very low traffic volumes and speeds.

Aircraft Noise. Overflights associated with the Palm Springs Airport generate occasional, but intrusive noise impacts in the planning area. However, this facility is not located on or in close proximity to public BLM or Forest Service lands, and noise associated with airport operations does not adversely affect BLM or Forest Service lands.

Stationary Source Noise. Stationary noise sources in the National Monument planning area include grading and construction activity, power tools, household appliances, high-level radio and/or television usage, and mechanical equipment, such as heating and air conditioning units. Noise from roof-mounted equipment, such as fans and compressors, which emit a constant hum, can penetrate adjacent property and adversely affect the quality of life in residential neighborhoods. Industrial noise generated at loading and transfer areas, outdoor warehousing operations, and unscreened commercial or industrial activities, can also result in objectionable noise levels.

Outlying, remote BLM and Forest Service land, including large-scale open space and wilderness areas, is virtually free from stationary noise intrusion. Such areas include undeveloped land in San Jacinto and Santa Rosa mountains.

Wind Turbine Noise. Wind Energy Conversion Systems (WECS) have been constructed on BLM-administered land in the western Coachella Valley. These lands are not in but near the National Monument boundary. Wind turbine noise varies based on the turbine model and design specifications, including the age, height, and tower damping features of each turbine. Environmental factors, including intervening terrain, vegetation, wind speed and direction, and distance and elevational offsets between the turbine and the noise receptor, also affect ambient noise levels.

Riverside County has adopted a WECS ordinance (County Municipal Code Section 17.224.040L) that requires the projected wind turbine noise level at each nearby sensitive receptor (habitable dwelling, hospital, school, library, or nursing home) to be at or below 55 dB(A); this level shall be reduced by 5 dB(A) where it is projected that pure tone noise will be generated. BLM utilizes the same standard for WECS development occurring on BLM lands.

3.M. Fire Management

Response to wildland fire is based on ecological, social and legal consequences of the fire. The circumstances under which a fire occurs, and the likely consequences on firefighter and public safety and welfare, natural and cultural resources, and other values to be protected dictate the appropriate management response to the fire by BLM and Forest Service

Based on these factors, the following fire management categories are identified by BLM. Habitat types mentioned are described in this document in the Biological Resources Section and are mapped on Figure 5. Vegetation Community Types:

Fire Management Category A. The following communities are areas where fire would not be desired at all: sand dunes and sand fields. Immediate suppression is a critical element of fire management in these desert environments because fire historically has never played a large role in the development and maintenance of the ecosystem.

Fire Management Category B. The following vegetation communities are areas where wildfire is not desired: (1) desert scrub, (2) desert alkali scrub, (3) marsh, (4) dry wash woodland, pinyon-juniper woodland and mesquite, and (5) riparian areas. Immediate suppression is a critical element of fire management in these desert communities because fire historically has never played a large role in the

development and maintenance of these communities. Prescribed fire may be utilized as a resource management tool in very select situations, for example to effectively manage exotic vegetation.

Fire Management Category C. (1) Oak woodlands and forest communities and (2) chaparral communities are areas where wildland fire (including prescribed burning) may be allowed. The following constraints must be considered in determining the appropriate level of suppression: (1) emphasize protection of life and property, especially trail users and montane communities, (2) evaluate potential beneficial or adverse effects on threatened and endangered species habitat, especially endemic species, (3) evaluate potential for adverse effects to significant or sensitive cultural and other natural resources, (4) promote mosaic pattern of vegetation resulting from different fire histories within the larger landscape, (5) protect areas so that they do not burn at less than 15 year intervals.

Forest Service Fire Management guidance through the San Bernardino National Forest Plan(1989) outlines the following guidance:

1. Implement and maintain a fire protection system that permits the attainment of management objectives.
2. Provide a trained fire management organization to implement Safety First standards in the mission of fire suppression.
 - a. Implement and maintain the National Interagency Incident Management System (NIMS) for Forest and Regional fire support through training, physical fitness, and planned firefighting programs.
 - b. Plan and conduct specialized training to implement Regional Plan direction for structural fire protection.
 - c. Provide training for all engine crews to recognize and respond appropriately to the presence of hazardous materials in fire response situations.
3. Participate in community and development planning in interface areas to provide input into zoning, Greenbelt standards and fire prevention measures. Use "Foothill Community Protective Greenbelt Program" as a basis for input into development planning.
4. Develop and maintain cooperative agreements for fire protection and prevention.

Fuelbreaks are to be maintained only as long as they are needed to support the vegetation management program or to provide protection to communities. Fuelbreaks with diminished value to resource and fire management programs will be considered for abandonment. The prescribed fire program responds to multiple resource, fire management, and wilderness objectives.

Current fire protection responsibility within the bounds of the National Monument is split between several agencies. BLM provides its own fire suppression services on BLM-administered lands and contracts with the California Department of Forestry for fire suppression in mountainous areas. The Riverside County Fire Department operates approximately 22 fire stations in the Coachella Valley and provides fire suppression and

prevention, emergency medical response, hazardous materials response, fire investigations, and other related services to most communities in the valley, as well as to Anza-Borrego Desert State Park area, located south and west of the National Monument. The cities of Palm Springs and Cathedral City operate their own municipal fire departments. However, fires occurring within State Response Areas (SRAs), which include large vegetated areas, are the responsibility of the California Department of Forestry, and fires occurring within the San Bernardino National Forest are the responsibility of the U.S. Forest Service.

Mountain Area Safety Task Force (MAST)

Large stands of trees are dying in the San Bernardino and San Jacinto Mountains due to a four-year drought; the worst in recorded history. The drought has significantly stressed the trees, resulting in unusually high colonies of bark beetles and forest pathogens. Idyllwild is one of the communities in the National Forest which are impacted most dramatically. Thousands of homes are at risk to wildfire fueled by the increase in dead trees and dry vegetation. A Mountain Area Safety Task Force (MAST) for Riverside County has been formed to address the issue on a multi-agency level. All public safety and land management agencies within the San Jacinto and San Bernardino Mountains are involved in managing this disaster. The MAST is now operating in an incident mode using the Incident Command System as an operating infrastructure.

3.N. Transportation and Motorized Vehicle Access

3.N.1. Transportation

Many BLM and Forest Service lands in the National Monument are remote, undeveloped, and inaccessible by motor vehicles. Other Federal lands are accessible to off-highway and recreational vehicles; routes on these lands are designated through the BLM and Forest Service Motorized-Vehicle Route Designation processes (see 3.M, Motorized-Vehicle Access). Certain routes are available only to authorized users for specific activities (e.g., rights-of-way issued for development of communication sites or wind energy facilities).

Some BLM and Forest Service lands in the National Monument are traversed or accessed via major highways that provide for the continuous transport of persons and goods. The following briefly describes major roadways that pass through or near the National Monument:

Interstate Highway 10. The Coachella Valley is bisected by Interstate Highway 10 (I-10), which connects the valley with the Los Angeles, Riverside, and San Bernardino metropolitan areas to the west and the Phoenix region to the east. I-10 is a critical component of the regional road network and provides intra-regional and inter-city access within the Valley. It consists of a divided freeway accessed from diamond-shaped interchanges spaced a minimum of one mile apart.

State Highway 111. State Highway 111 is an intra-valley roadway, which connects the Valley with communities of the Imperial Valley to the southeast. In the vicinity of its westerly terminus at I-10 in the San Gorgonio Pass, Highway 111 forms the boundary of the National Monument.

State Highway 74. State Highway 74 connects the Coachella Valley with communities in southwestern Riverside County and northern San Diego County. It extends south from State Highway 111 in the City of Palm Desert, into the rocky terrain of the Santa Rosa Mountains, through lands recently designated as critical habitat for the Peninsular Ranges bighorn sheep by the U.S. Fish and Wildlife Service. It proceeds west, then northwest, into the San Bernardino National Forest, to the mountain community of Mountain Center and the Hemet Valley. BLM lands within the National Monument that are crossed or bordered by Highway 74 include holdings in Dead Indian, Grapevine and Carrizo Canyons, extending from the toe of the mountain into elevated terrain. Highway 74 from Palm Desert to Mountain Center, in conjunction with Highway 243 from Mountain Center to Banning, has been designated as the “Palms to Pines National Scenic Byway.”

State Highway 243. State Highway 243 connects Interstate Highway 10 and State Highway 74, and extends from Banning to Mountain Center. This scenic highway passes through the communities of Idyllwild and Pine Cove. No part of the highway is located within the National Monument boundary, but it does pass through the San Bernardino National Forest.

State Highway 371. State Highway 371, in connecting State Highways 74 and 79, passes through the community of Anza. It comprises one of the primary routes for travelers to the Palm Desert area from San Diego. No part of the highway is located within the National Monument, but it does pass through the San Bernardino National Forest.

3.N.2. Motorized-Vehicle Access - Route Designation

BLM

BLM completed the route designation process for motorized-vehicle access through the California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002). Route designations of “open” and “closed” apply only to BLM-managed lands; applicable routes are shown in the table below. Routes available for general public use on BLM lands in the National Monument total about two miles; these are available for use by any motorized-vehicle, whether licensed or not (though unlicensed vehicles require a State-issued “green sticker” permit). Maintenance levels have not been established for these routes. Closed routes may be used for administrative and emergency purposes only.

The 1982 amendment defined route designations in the following manner:

Open Route = Access on the route by motorized vehicles is allowed.

Limited Route = Access on the route is limited to use by motorized vehicles in one or more of the following ways and limited with respect to:

- 1) number of vehicles allowed
- 2) types of vehicles allowed
- 3) time or season of vehicle use
- 4) permitted or licensed vehicle use only
- 5) establishment of speed limits

The same exceptions to motorized-vehicle use of closed routes also apply to limited routes (see below, “Closed Route”).

Closed Route = Access on the route by motorized vehicles is prohibited except: (1) fire, military, emergency or law enforcement vehicles when used for emergency purposes; (2) combat or combat support vehicles when used for national defense purposes; (3) vehicles whose use is expressly authorized by an agency head under a permit, lease, or contract; and (4) vehicles used for official purposes by employees, agents, or designated representatives of the Federal Government or one of its contractors.

Except in Congressionally-designated wilderness areas, “open,” “limited,” and “closed” route designations may be made in each of the Multiple-Use Classes, in Areas of Critical Environmental Concern (ACECs), and in unclassified lands.

Table 3.9. Route Designations for Routes on BLM Lands in the National Monument

| Route No. | General Location | U.S.G.S. Quad Name | Miles on BLM Lands | Miles Open (BLM) | Miles Closed (BLM) |
|---------------------------------------|---------------------|--------------------|--------------------|------------------|--------------------|
| Snow Creek/Windy Point Area | | | | | |
| CV020 | Snow Creek | White Water | <0.1 | -- | <0.1 |
| CV021 | Snow Creek | White Water | 0.4 | -- | 0.4 |
| CV022 | Snow Creek | White Water | 0.3 | 0.3 | -- |
| CV023 | Snow Creek | White Water | 0.1 | 0.1 | -- |
| CV024 | Snow Creek | White Water | 0.4 | -- | 0.4 |
| CV025 | Snow Creek | White Water | 0.6 | 0.6 | -- |
| CV026 | Snow Creek | White Water | 1.0 | -- | 1.0 |
| CV027 | Snow Creek | White Water | 1.1 | -- | 1.1 |
| CV028 | Snow Creek | White Water | 0.6 | -- | 0.6 |
| <i>Subtotal</i> | | | 4.6 | 1.0 | 3.6 |
| Dunn Road and tributary routes | | | | | |
| CV055 (Dunn Road) | Cathedral City Cove | Cathedral City | 1.1 | -- | 1.1 |
| CV055 (Dunn Road) | Haystack Mtn | Rancho Mirage | 6.3 | -- | 6.3 |
| CV056 | Cathedral City Cove | Cathedral City | 1.0 | -- | 1.0 |
| CV077 | Dry Wash | Palm View Peak | 0.7 | -- | 0.7 |
| CV077 | Dry Wash | Rancho Mirage | 1.4 | -- | 1.4 |
| CV078 | Palm Canyon | Palm View Peak | 0.8 | -- | 0.8 |
| CV079 | Palm Canyon | Palm View Peak | 1.2 | -- | 1.2 |
| CV080 | Dry Wash | Rancho Mirage | 2.0 | -- | 2.0 |
| CV081 | Dry Wash | Rancho Mirage | 0.5 | -- | 0.5 |

| | | | | | |
|---------------------|-----------------|---------------|-------------|------------|-------------|
| CV082 | Potrero Spring | Rancho Mirage | 1.0 | -- | 1.0 |
| <i>Subtotal</i> | | | <i>16.0</i> | <i>0</i> | <i>16.0</i> |
| Other routes | | | | | |
| CV083 | Hwy 74 | Rancho Mirage | 0.1 | -- | 0.1 |
| CV084 | Hwy 74 | Rancho Mirage | 0.3 | -- | 0.3 |
| CV085 | La Quinta Cove | La Quinta | 0.3 | -- | 0.3 |
| CV086 | Lake Cahuilla | La Quinta | 0.3 | -- | 0.3 |
| CV088 | Hwy 74 | Rancho Mirage | 0.1 | -- | 0.1 |
| CV088 | Hwy 74 | Toro Peak | 0.2 | -- | 0.2 |
| CV089 | Hwy 74 | Toro Peak | 0.5 | -- | 0.5 |
| CV093 | Martinez Canyon | Valerie | 1.1 | 1.1 | -- |
| <i>Subtotal</i> | | | <i>2.9</i> | <i>1.1</i> | <i>1.8</i> |
| TOTAL | | | 23.5 | 2.1 | 21.4 |

Designated wilderness (wherein motorized-vehicle access is generally prohibited), mixed land ownership patterns, and rugged topography have limited the extent of vehicle routes on BLM lands. Lands suitable for the development of additional routes are limited.

[The designation of areas as “open,” “limited,” and “closed” for off-highway vehicle access was also addressed through the California Desert Conservation Area Plan Amendment for the Coachella Valley (BLM 2002). See Section 3.D. Off-Highway Vehicle Use regarding these designations.]

Forest Service

Forest Service: Roads may be recommended for designation as classified roads (added to the Transportation System) in the Land and Resource Management Planning (LRMP) Revision process, or recommended for removal as a classified road. Both recommendations would be subject to a site-specific Environmental Analysis in the future. Site-specific road determinations will not be made in the LRMP Revision process.

The Forest Service Transportation Management System basically determines Operational and Management requirements based on protection of adjacent resources, user safety and comfort, acceptability or non-acceptability of dust, season of use, and volume of traffic. An interdisciplinary process is used to determine what level of road maintenance best meets the above criteria.

- Level 1 roads are closed to all motorized traffic, receive custodial maintenance to perpetuate the road, and are subject to future use, such as for periodic timber sales.

- Level 2 roads generally have a native surface and are maintained for high clearance vehicles, such as pickups and sport utility vehicles. The operational strategy is to discourage travel by passenger cars. A Level 2 road may be 2-wheel drive or 4-wheel drive.
- Level 3 roads are generally native surface, or surfaced with aggregate and are maintained for a prudent driver in a standard passenger car. The operational strategy is to encourage or accept passenger car traffic.
- Level 4 roads are open for passenger cars and have dust abatement. The operational strategy for Level 4 roads is to encourage traffic.
- Level 5 roads are generally double lane, paved roads. The operational strategy for Level 5 roads is to encourage traffic. Roads assigned maintenance levels 3 through 5 are subject to the Highway Safety Act of 1966 (Public Law 89-564).

Table 3.10. Forest Service Open Routes in the National Monument

| Road No. | Road Name | Maintenance Level | Overall Length | Length w/in the National Monument |
|--------------|--------------------------|-------------------|----------------|-----------------------------------|
| 4S01 | Black Mountain (partial) | 2 | 9.7 | 3.0 |
| 4S01E | E Spur (partial) | 2 | 0.4 | 0.3 |
| 7S02 | Santa Rosa (partial) | 2 | 12.9 | 3.5 |
| 7S02C | Stump Spring | 2 | 0.4 | 0.4 |
| 7S05 | Sawmill | 2 | 5.3 | 5.3 |
| 7S05A | A Spur | 2 | 0.4 | 0.4 |
| 7S05B | Cactus Spring | 2 | 0.8 | 0.8 |
| 7S05C | Deep Canyon | 2 | 0.4 | 0.4 |
| 7S05D | D Spur | 2 | 0.6 | 0.6 |
| 7S08 | Pinyon Flat Campground | 2 | 0.7 | 0.7 |
| 7S11 | Cahuilla Tewanet | 5 | 0.2 | 0.2 |
| 7S14 | Ribbonwood | 3 | 0.3 | 0.3 |
| 7S14A | Ribbonwood Equestrian CG | 3 | 0.2 | 0.2 |
| 7S15 | Sawmill Trailhead | 5 | 0.2 | 0.2 |
| | | | | |
| TOTAL | | | 32.5 | 16.2 |

Level 2 roads are generally maintained on a 3-year rotation, but maintenance schedules are determined based on deterioration caused by weather and use. Level 3 roads are generally maintained on an annual basis, and again, are dependent upon deterioration caused by weather and use. Level 5 roads are maintained on an annual basis, as needed.

Because the four Southern California Forests are in the process of completing a Land and Resource Management Plan (LRMP) Revision, decisions regarding roads are subject to a Road Analysis Process, to determine which Level 3-5 roads will be recommended for reconstruction or removal from the Transportation System, subject to

a site-specific Environmental Analysis in the future. Level 2 roads will not be analyzed in the LRMP Revision process.

3.N.3. Motorized-Vehicle Access - Dunn Road

Dunn Road in the Santa Rosa Mountains was established by trespass in 1966. The status of the road was settled in 1975 in U.S. District Court by placing specific requirements on American Land Company (defendant) to limit and control access to the road. The road has been controlled by a locked gate since that time. In 1997, BLM acquired the parcel in Cathedral City Cove, which includes the northern gate controlling access to Dunn Road. In August of 2000, BLM completed a temporary closure on Dunn Road maintaining the controlled access provided by the locked gate pending a decision in the California Desert Conservation Area Plan Amendment for the Coachella Valley; the route was designated “closed” through the Plan Amendment. Dunn Road also crosses private land and landowners have at times denied access across their land to permitted public land users. Vehicle use of public land portions of Dunn Road is also related to use of tributary routes such as the Dry Wash route, an access route from Royal Carrizo, and short spur routes along the road.

The Dunn Road has been used for multiple purposes. It serves as an important fire control access for BLM, U.S. Forest Service, California Department of Forestry, and City of Palm Springs. Law enforcement and land use compliance assessments are by BLM, U.S. Forest Service, Riverside County, and City of Palm Springs. Search and rescue use is by Agua Caliente Band of Cahuilla Indians, BLM, U.S. Forest Service, and Riverside County. Administrative use for land management projects such as tamarisk control, cultural survey or monitoring is by Agua Caliente Band of Cahuilla Indians, BLM, U.S. Forest Service, California Department of Fish and Game, and private landowners. Although these administrative uses are very important, they result in fairly low vehicle use levels, historically averaging less than five visits per month except when a project or fire is ongoing.

Recreation use has accounted for most of the historic use of Dunn Road. Commercial jeep touring was a permitted use, allowing a public access option to the area for those who did not hike, ride horses, or ride mountain bikes. Jeep tours were a permitted use from 1989 to June of 2001 when lawsuit requirements and denial of access by a private landowner eliminated the use. Between September 1995 and June 1999, the permittee conducted tours for more than 42,000 customers. Most tours occurred from January to June (69%), no tours were conducted in July and August, with the remaining tours from September to December (31%).

Currently, two right of way applications are in process for the Dunn Road. Both are from public agencies for the purposes of obtaining legal access to support flood control and administrative uses of the road.

3.N.4. Motorized-Vehicle Access - Private Land Access

Motorized-vehicle access to private lands across Federal lands is secured through rights-of-way grants. Temporary access may be provided on routes designated “closed” through authorizations on a case-by-case basis.

3.N.5. Motorized-Vehicle Access - Revised Statute 2477 Rights-of-Way

BLM

Revised Statute 2477 (R.S. 2477) was passed by Congress as Section 8 of the Mining Act of 1866, which established the first system for patenting lode-mining claims and provided for access. R.S. 2477 stated “the right-of-way for the construction of highways over public lands, not reserved for public uses, is hereby granted.” It was repealed when the Federal Land Policy and Management Act (FLPMA) was enacted on October 21, 1976. However, FLPMA did not terminate any existing “rights-of-way” granted under R.S. 2477.

There are often questions about what was offered under R.S. 2477, to whom, and how the rights-of-way were to be perfected. These questions have not been answered in a clear and consistent manner either locally or nationally. Many routes across public land came into existence with no documentation of the public land records. Routes across public land constructed after 1866, but before withdrawal, patent, mining claim, or reservation for a specific purpose, and before the passage of FLPMA may be R.S. 2477 rights-of-way.

In an attempt to clear up these ambiguities, Congress directed the Department of the Interior to study the history, impacts, status, and alternatives to R.S. 2477 rights-of-way and to make recommendations for processing claims (assertions). This process began in November 1992. Public meetings were held to assist in preparing a report that was submitted to Congress in May 1993. The report stated that, until completion of the report, the Department “...deferred processing pending claims unless there is an immediate and compelling need to recognize or deny any claims.”

The BLM was directed to prepare regulations to guide the process of reviewing R.S. 2477 claims. Draft regulations were published in 1994. Three terms are important in determining which roads are R.S. 2477 rights-of-way: (1) “construction,” (2) “highways,” and (3) “not reserved for public uses.” The terms “construction” and “highways” are the most controversial provisions of R.S. 2477 and the regulations. On November 19, 1995, Congress approved a moratorium on the regulations. Because there are no final regulations that provide criteria for processing claims under R.S. 2477, the policy of deferring the processing of claims unless there is a compelling need remains in place.

The route network identified under the CDCA Plan Amendment for the Coachella Valley (BLM 2002) was developed through a route designation process that considered resource management issues and regulatory and statutory closures (such as in designated wilderness). This process did not make any determinations under R.S. 2477. Designations of “closed” do not constitute determinations that R.S. 2477 rights-of-way do not exist. Such closures do not extinguish any R.S. 2477 rights-of-way that may exist. Conversely, a route designated as “open” does not mean that the route has been determined to be an R.S. 2477 right-of-way.

Forest Service

Revised Statute 2477 is only an issue on National Forest land if: (1) a public way was constructed across the public domain before the land was reserved as National Forest, which in the case of the San Bernardino National Forest was 1896; (2) some form of “construction” on the road has occurred; and (3) the way so constructed was used as a public highway.

3.O. Special Uses

Special uses that require authorization through permits or grants include recreational uses, rights-of-way for utility and services development, leases, easements and other uses of BLM and Forest Service lands that are not authorized through other means. The following list includes some special uses and the permit/grant process required and is not meant to be a comprehensive listing.

3.O.1. Special Use Permits for Recreation

Special use permits are required for certain recreational activities in the National Monument. These are described below.

Wilderness Permits

See Section 3.A. Wilderness Permits.

Permits for Non-Wilderness Use

BLM

In accordance with Title 43 of the Code of Federal Regulations, Subpart 2932.11, Special Recreation Permits may be required for the following uses: (1) recreational use of special areas; (2) noncommercial, noncompetitive, organized group activities or events; or (3) academic, educational, scientific, or research uses that involve (i) means of access or activities normally associated with recreation; (ii) use of areas where recreation use is allocated; or (iii) use of special areas. Determinations regarding such requirements will be made through a trails management plan for the Santa Rosa and San Jacinto Mountains (pending).

Organized group activity means a structured, ordered, consolidated, or scheduled event on, or occupation of, public lands for the purpose of recreational use that is not commercial or competitive. Special area means (a) an area officially designated by statute, or by Presidential or Secretarial order; (b) an area for which BLM determines that the resources require special management and control measures for their protection; or (c) an area covered by joint agreement between BLM and a State under Title II of the Sikes Act (16 U.S.C. 670(a) *et seq.*).

Forest Service

Currently, permits are not required for casual (noncommercial, noncompetitive) recreation on Forest Service lands outside designated wilderness, except for use of developed campgrounds (e.g., Pinyon Flat and Ribbonwood Equestrian Campgrounds) and parking where an Adventure Pass is required (see Section 3.D., Adventure Pass).

Commercial and Competitive Recreational Activities

Commercial and competitive recreational activities on Federal lands within the National Monument, including vending associated with such uses, require a permit. BLM and Forest Service have different application procedures addressing such uses. Processing of applications for these uses can take several months, depending on the proposed activity and potential impacts to resource values, e.g., impacts to Peninsular Ranges bighorn sheep from jeep tours.

Commercial use means recreational use of the public lands for business or financial gain. The activity, service, or use is commercial if (a) any person or organization makes or attempts to make a profit, receive money, amortize equipment, or obtain foods or

services, as compensation from participants in recreational activities occurring on public lands led, sponsored, or organized by that person, group, or organization; (b) anyone collects a fee or receives other compensation that is not strictly a sharing of actual expenses, or exceeds actual expenses, incurred for the purposes of the activity, service, or use; (c) there is paid public advertising to seek participants; OR (d) participants pay for a duty of care or an expectation of safety. Profit-making organizations and organizations seeking to make a profit are automatically classified as commercial, even if that part of their activity covered by the permit is not profit-making or the business as a whole is not profitable. Use of the public lands by scientific, educational, and therapeutic institutions or nonprofit organizations is commercial and subject to a permit requirement when it meets any of the threshold criteria described above. The nonprofit status of any group or organization does not alone determine that an event or activity arranged by such a group or organization is noncommercial.

Vending means the sale of goods or services, not from a permanent structure, associated with recreation on the public lands, such as food, beverages, clothing, firewood, souvenirs, photographs or film (video or still), or equipment repairs.

Competitive use means (a) any organized, sanctioned, or structured use, event, or activity on public land in which 2 or more contestants compete and either or both of the following elements apply: (i) participants register, enter, or complete an application for the event, or (ii) a predetermined course or area is designated; OR (b) one or more individuals contesting an established record such as for speed or endurance.

3.O.2. Utilities and Rights of Way

No utility corridors have been identified within the Forest Service or BLM portions of the National Monument. Existing rights-of-way include a 500 KV electricity line with fiber optics attached within the San Jacinto Wilderness, a 33 KV powerline to the community of Pinyon with telephone line attached, several roads including Highway 74, Desert Water Agency and Pinyon Water Agency storage tanks and development, Riverside County solid waste transfer site, and several weather related sampling units.

Applications for new rights-of-way within the National Monument for the purposes of utility development and communication site development are addressed on a case-by-case basis. Impacts to the resources that the National Monument was established to protect are analyzed according to the National Environmental Policy Act upon receipt of an application for a right-of-way. Impacts to visual resources are included in such analysis, with Visual Resource Management Classes (BLM) and Scenery Management System levels (Forest Service) providing guidance. Introduced changes to visual elements of the characteristic landscape of the National Monument are avoided when alternative areas exist.

3.P. Land Ownership and Acquisition from Willing Sellers

Section 6 of the National Monument Act of 2000 (Appendix A) provides for acquiring State, local government, tribal, and privately held land or interests in lands within the bounds of the National Monument only by (1) donation; (2) exchange with a willing party; or (3) purchase from a willing seller. The use of permanent conservation easements is also referenced in the legislation.

Any land or interest in lands within the boundaries of the National Monument that is acquired shall be added to and administered as part of the National Monument as provided in Public Law 106-351, section 3(b).

While the BLM and Forest Service each have policy and guidance concerning acquisitions (listed below), a state agency that has been instrumental in the acquisition of land within the National Monument has been the Coachella Valley Mountains Conservancy. It was created by the State of California to acquire and protect lands in the Coachella Valley, including the National Monument. The Conservancy's Governing Board includes a representative of BLM, Forest Service, Wildlife Conservation Board (WCB), California Department of Fish and Game (CDFG), Agua Caliente Band of Cahuilla Indians (ACBCI), the County of Riverside, and each of the cities with land under its jurisdiction in the National Monument. The Board's composition has enabled the Conservancy to facilitate and coordinate acquisitions by these various agencies. Each agency has its own funding sources and acquisition programs, but these have been effectively coordinated through the Conservancy, which does a significant amount of the initial landowner contacts that result in acquisitions by other agencies or nonprofit organizations. In the case of large acquisition projects, several agencies may each fund a portion of the acquisition.

Each of the agencies involved in acquiring lands in the National Monument has its own acquisition priorities, based on its geographic area of responsibility and mission. BLM and Forest Service are generally concerned with acquiring parcels in the areas they manage that are checker boarded with public and private ownership. The state Wildlife Conservation Board acquires lands pursuant to a Conceptual Area Acquisition Plan, which sets priorities based on habitat values for the endangered Peninsular Ranges bighorn sheep. The *Coachella Valley Mountains* Conservancy's priorities are based on protecting scenic, cultural, biological, and recreational resource values. Approval of the Coachella Valley Multiple Species Habitat Conservation Plan/Natural Community Conservation Plan (MSHCP/NCCP), which is anticipated to be in 2003, will shift the emphasis in the Conservancy's priorities more heavily toward biological and recreational resources. The cities and the County focus on protecting key open space areas within their respective jurisdictions. The Agua Caliente Band of Cahuilla Indians (ACBCI) acquisition program is focused on acquiring inholdings within the reservation boundaries. The ACBCI has prepared a Tribal MSHCP, which will further direct their acquisition priorities.

BLM and Forest Service Acquisition Policies

The BLM and Forest Service each have existing acquisitions policies. These are described below:

It is the policy of the BLM to:

- A. Acquire land and/or interests in land needed to implement land use plans and to manage, protect, develop, maintain, and use resources on public land and further provide access for public use and enjoyment of such lands (as exemplified by perpetual access to lands having outstanding recreational value); provided such acquisitions are within the limitations of applicable authorities and available funds and are in conformity with land use plans that apply to the area involved.
- B. .Acquire land and/or interests in land necessary for effective program operation. Before acquisitions, BLM must determine whether requirements

may be met by improved utilization of present holdings; whether other suitable existing Federal holdings are available, including possible joint-use agreements; or whether requirements may be met by obtaining excess property from other agencies.

- C. Accept donations of land or interests in land which implement land-use planning goals and will help consolidate and facilitate the management, use, and protection of the public lands and its resources.
- D. Only perpetual interests may be acquired when using the Federal portion of the Land and Water Conservation Fund. Land and/or interests in land acquired where any portion of the consideration is derived from the Land and Water Conservation Fund shall remain in Federal ownership and shall not be disposed of by any means, including exchange, Recreation and Public Purpose lease/patent, or sale.

*The Santa Rosa/San Jacinto Mountains National Monument legislative act does provide for exchanges of federal lands acquired using LWCF but only with the Agua Caliente Band of Cahuilla Indians and then only in a limited geographic area within the National Monument itself.

Authority for BLM's acquisition program is derived from the following sources and are applicable to all BLM administered public lands:

(This is only a partial listing since many cited authorities do not involve BLM acquisitions in the National Monument)

1. The Federal Land Policy and Management Act of October 21, 1976, as amended (FLPMA) (P.L. 94-579), (43 U.S.C. Secs. 1715, 1737, 1748, and 1762). FLPMA is BLM's basic acquisition authority. Sections of this Act are pertinent to the acquisition of lands or interests in lands and the acceptance of donated property.

A. Section 205 (43 U.S.C. Sec. 1715). Provides the BLM with the basic authority to acquire land or interests therein where such acquisitions are consistent with the Departmental mission and with applicable land use plans. The power of eminent domain is limited to certain specified situations in the acquisition of land.

"(a) Notwithstanding any other provisions of law, the Secretary, with respect to the public lands and the Secretary of Agriculture, with respect to the access over non-Federal lands to units of the National Forest System, are authorized to acquire pursuant to this Act by purchase, exchange, donation, or eminent domain, lands or interests therein: Provided, That with respect to the public lands, the Secretary may exercise the power of eminent domain only if necessary to secure access to public lands and then only if the lands so acquired are confined to as narrow a corridor as is necessary to serve such purpose..."

"(b) Acquisitions pursuant to this section shall be consistent with the mission of the department involved and with applicable departmental land-use plans."

B. Land and Water Conservation Fund Act of 1965 (September 3, 1964), as amended (P.L. 88-578), (16 U.S.C. Sec. 460, et seq.), (78 Stat. 897). The LWCF Act is a funding source for the acquisition of land and interests in land. LWCF

funds cannot be used before a project is approved and funds appropriated by Congress.

C. Specific Geographic Area Authorities. These authorities are applicable to BLM administered lands located in specific geographical areas and located within specific designated areas. In addition to granting acquisition authority, many of these acts also establish specific limitations and guidelines to be followed.

D. Wilderness Act of September 3, 1964, (P.L. 88-577), (78 Stat. 890), (16 U.S.C. Sec. 1131, et seq.). This law established the National Wilderness Preservation System. Section 603(c) of FLPMA (43 U.S.C. Sec. 1782) provides that once an area has been designated for preservation as wilderness, the provisions of the Wilderness Act which apply to national forest wilderness areas shall apply with respect to the use and administration of BLM designated areas.

The Secretary of the Interior is directed by section 702 of the CDPA to: " In preparing land tenure adjustment decisions.... the Secretary shall give priority to consolidating Federal ownership within the national Park units and wilderness areas designated by this Act."

It is the policy of the Forest Service to:

- A. Give priority to consolidation of National Forest System lands within existing National Forest units.
- B. Acquire rights-of-way needed to ensure optimum protection and use of National Forest resources.
- C. Complete land-for-land exchanges to consolidate National Forest System lands and private, State, or local government land patterns. or to make other adjustments in landownership that the Forest Service deems to be in the public interest.
- D. Transfer and interchange land with other agencies to consolidate National Forest System lands, to clarify and reduce the cost of administration and protection, and to improve resource conservation production and utilization.
- E. Give priority to processing of land purchases and donations that are identified in approved Forest land and resource management plans or landownership adjustment plans.
- F. Encourage donations of land to consolidate National Forest System lands to improve resource conservation and to obtain land needed for administrative or research purposes.

Authority for the Forest Services acquisition program is derived from the following sources and are applicable to all National Forest System lands:

- A. Act of August 3, 1956. (79 Stat. 1034). Section 11(a) of this law provides that the Department of Agriculture can purchase land or interests therein, as necessary, to carry out its authorized work.

B. Receipts Acts. Purchase of lands within San Bernardino and Cleveland National Forests in Riverside County, California. Act of June 15, 1938 (52 Stat. 699), as amended by act of May 26, 1944 (58 Stat. 227).

C. Land and Water Conservation Fund Act of September 3, 1964. (78 Stat. 897, as amended). This act is primarily a funding authority for land acquisition. Purchases using funds appropriated under this act must be primarily of value for outdoor recreation purposes or to conserve habitat for fish, wildlife, and plants, including those listed as endangered or threatened species.

D. Wilderness Act of September 3, 1964 (78 Stat. 896; 16 U.S.C. 1134). This act authorizes the Secretary of Agriculture to acquire privately owned lands within the perimeter of any area designated as wilderness.

Authority for the Forest Service regarding land donations:

A. Act of March 3, 1925 (43 Stat. 1133, as amended). Section 5 of this act authorizes the Secretary of Agriculture to accept donations of land for any National Forest or experimental purpose. Lands may be acquired inside or outside National Forests, as necessary for the intended use of the site.

B. Act of August 3, 1956 (70 Stat. 1034). Section 11 of this act provides for the acquisition of land, or interest therein, by purchase, exchange, or otherwise, as may be necessary to carry out the Department's authorized work.

C. Act of October 10, 1978 (92 Stat. 1065). This law provides authority to the Secretary of Agriculture, on behalf of the United States, to accept, receive, hold, utilize, and administer bequests or devises of real and personal property made for the benefit of the Department of Agriculture or for the accomplishment of any of its functions.

Authority for the Forest Service regarding land donations:

A. General Exchange Act of March 20, 1922 (42 Stat. 465, as amended; 16 U.S.C. 485, 486). This act authorizes the exchange of land or timber that was reserved from the public domain for National Forest System purposes.

B. Weeks Act of March 1, 1911 (36 Stat. 961 as amended; 16 U.S.C. 516). This act authorizes the exchange of National Forest System land or timber that has Weeks Law (acquired land) status.

C. Forest Service Omnibus Act of October 23, 1962 (76 Stat. 1157; 16 U.S.C. 555a). This act authorizes the exchange of National Forest System lands having acquired status when no other exchange authority applies to the disposal of those specific lands.

D. Federal Land Policy and Management Act of October 21, 1976 (FLPMA) (90 Stat. 2755 as amended; 43 U.S.C. 1701, 1715, 1716, 1717). This act supplements all earlier exchange authorities except the Sisk Act of December 4, 1967 (16 U.S.C. 484a).

E. Department of Agriculture Organic Act of August 3, 1956 (70 Stat. 1032; 7 U.S.C. 428a(a)). There must be authorization language in the annual Appropriation Act for Interior and Related Agencies in order to use this authority.

F. Wilderness Act of September 3, 1964 (78 Stat. 896; 16 U.S.C. 1134). This act authorizes the acquisition of non-Federal land and interests in wilderness areas in exchange for Federal land in the same State.

Land Exchanges

Currently there are 2 exchanges being processed; one is with the Agua Caliente Band of Cahuilla Indians, and the other is with University of California Riverside. The following describes lands involved in the exchanges:

Parcels of BLM lands identified for exchange with the Agua Caliente Band of Cahuilla Indians include portions of the Skyline, Garstin, Shannon, Berns and Wild Horse Trails. These trails receive substantial recreational use by hikers and horseback riders. [Indicative of use levels in the Murray Hill complex of trails, 223 users of the Clara Burgess Trail were observed by BLM employees from January 2001 to April 2002 during 254 hours of monitoring [BLM, 2002]. Given that the Clara Burgess Trail is more remote than other trails in the Murray Hill area, use of the Garstin, Shannon, Berns and Wild Horse Trails can reasonably be expected to be greater.] Recreational access to these trails would be governed in accordance with Tribal decisions. Impacts to recreation would be contingent on the extent of restrictions, if any, that may be imposed. Parcels of Tribal lands that would be acquired by the BLM are not identified. Impacts to recreation from management prescriptions applicable to the acquired parcels would be determined through a trails management plan for the Santa Rosa and San Jacinto Mountains (pending).

The parcel of BLM lands identified for exchange with the UC Reserve System does not include portions of any recognized trails; current use of this parcel for recreational purposes is not known, but is anticipated to be low given its remoteness and the rugged nature of the terrain. Hence, impacts to recreation from disposal of the parcel would be minor. Parcels of land that would be acquired by the BLM in the UC Reserve System exchange are not identified. Impacts to recreation from management prescriptions applicable to the acquired parcels would be determined through a trails management plan for the Santa Rosa and San Jacinto Mountains (pending).

Expected land tenure activities. Lands are currently available for exchange only with the parties involved. No other land is currently available for exchange within the National Monument

Agua Caliente Lands identified for exchange within the National Monument:

San Bernardino Meridian, California

T.4S., R.4E.,
section 16, all
section 18, W1/2NE1/4, N1/2NE1/4SW1/4, S1/2 of Lot1, N1/2 of lot2,
section 36, lots 1-4, W1/2NE1/4, W1/2SE1/4, E1/2SW1/4, SE1/4NW1/4,
N1/2SW1/4SW1/4, E1/2NW1/4SW1/4, SW1/4NW1/4SW1/4,
S1/2NW1/4NW1/4SW1/4,

T.5S., R.4E.,
section 5, lots 1-4, S1/2NE1/4, S1/2NW1/4, S1/2,
sections 16, 21, 27, & 29, 32, & 36.

UCR lands identified for exchange within the National Monument

UCR EXCHANGE PUBLIC LANDS

T.6S.,R.6E., section 22.

Potential Funding Sources for Acquisition

The following is a partial listing of funding sources for the acquisition of lands within the National Monument.

- Federal: Land and Water Conservation Fund (BLM and Forest Service), Receipts Act (Forest Service), Land exchanges with Agua Caliente Band of Cahuilla Indians (ACBCI)
- Tribal: Agua Caliente Band of Cahuilla Indians
- State: Proposition 12 bond funds
Proposition 40 bond funds
Proposition 51 (if it passes)
General fund appropriations (when available)
Habitat Conservation Fund grant program
- Local: County of Riverside, Cathedral City, Indian Wells, La Quinta, Palm Desert, Palm Springs, Rancho Mirage
- Non Profit: American Land Conservancy, Native American Land Conservancy, Friends of the Desert Mountains

3.Q. Socio-Economic Considerations

The Santa Rosa and San Jacinto Mountains National Monument planning area occurs in two distinct geographic regions. The National Monument encompasses lands which are immediately adjacent to one of the premiere desert vacation resort destinations in the County, the Coachella Valley of Riverside County, California; and also includes mountain communities, including Idyllwild, Anza, Mountain Center and their adjacent communities, which are small, isolated, and although subject to the impacts associated with tourism, affected on a much smaller scale.

It is important to note that most of the Census data displayed below includes the 1990 and 2000 Census only. The zip codes used for these areas are 92539, 92549 and 92561.

3.Q.1. Regional Economy and Demographics

Population. The population of the National Monument planning area has grown rapidly over the past two decades. As described in the table below, the Coachella Valley population more than doubled during the 1980s, from 91,124 to 194,718. During the 1990s, the population of the Coachella Valley grew to 274,470, which represents a 10-year gain of 79,752 or 41%. In the Mountain Communities, the population increased only 16%, demonstrating the differing pressures of the two areas.

Table 3.11
Population Trends for the National Monument Planning Area,
1980-2000

| City/Place | Population | | |
|----------------------|------------------|----------------|----------------|
| | 1980 | 1990 | 2000 |
| Incorporated | | | |
| Cathedral City | N/A ¹ | 30,085 | 42,647 |
| Indian Wells | 1,394 | 2,647 | 3,816 |
| Indio | 21,611 | 36,793 | 49,116 |
| La Quinta | 3,328 | 11,215 | 23,694 |
| Palm Desert | 11,081 | 23,252 | 41,155 |
| Palm Springs | 32,359 | 40,181 | 42,807 |
| Rancho Mirage | 6,281 | 9,778 | 13,249 |
| Mountain Communities | N/A ² | 7,731 | 8,961 |
| Total: | 76,054 | 161,682 | 227,445 |

¹ Cathedral City was not incorporated until 1981.
² Data not tabulated in 1980.
Source: U.S. Census Bureau, Census 1980, 1990, 2000.

The Coachella Valley population is expected to continue to grow rapidly over the next two decades. The Southern California Association of Governments (SCAG) forecasts that the population will reach approximately 440,301 by year 2010, and 540,901 by year 2020.¹ At their historic rate of growth, the Mountain Communities can be expected to grow to 10,386 in 2010, and 12,037 in 2020².

Median Age. In 2000, the median age of residents living in the Coachella Valley ranged from a low of 27.3 in Indio, to a high of 63.4 in Indian Wells.³ This wide range of ages is representative of the planning areas diverse population, which includes students, young families, middle-aged professionals, retirees and seniors. The Coachella Valley is also known as tourist destination for retirees and other seniors. Many who stay months at a time. Many of the In the Mountain Communities, the median age range was much less varied, standing at 42.3 in Anza, 46.5 in Idyllwild, and 45.9 in Mountain Center.

Race and Ethnicity. The National Monument planning area is primarily Caucasian, with approximately 69.2% of residents in the region classifying themselves as “white.” However, nearly half (44.5%) of the population in the Coachella Valley identifies itself as Hispanic or Latino, of any race, while only 12.6% of the Mountain Communities’ population identified themselves as Hispanic or Latino. The table below describes the region’s racial/ethnic composition, according to the 2000 U.S. Census.

¹ Southern California Association of Governments, letter correspondence to City of La Quinta, May 23, 2001.

² Terra Nova Planning & Research estimates, assuming 15.9% decennial growth rate.

³ U.S. Census Bureau, Census 2000.

Table 3.12
Ethnicity in the National Monument Planning Area, 2000

| Race | Population | |
|----------------------------------|----------------|-------------------------|
| | Total No. | Percent |
| White | 196,239 | 69.2% |
| Black or African American | 6,529 | 2.3% |
| American Indian/Native Alaskan | 2,607 | 0.9% |
| Asian | 6,405 | 2.3% |
| Native Hawaiian/Pacific Islander | 275 | 0.09% |
| Some Other Race | 62,399 | 22.0% |
| Two or More Races | 9,545 | 3.4% |
| Total: | 283,431 | 100%¹ |
| Hispanic/Latino (of any race) | 123,357 | 43.5% |

¹ Difference due to rounding. Note: table includes combined data for nine incorporated cities and four unincorporated communities in planning area. Source: U.S. Census Bureau, Census 2000.

Households⁴

In 2000, there were approximately 105,695 households in the planning area. Average household sizes ranged from a low of 1.92 persons per household in Rancho Mirage, to a high of 3.5 in Indio. In the Mountain Communities, average household size for each of the three zip codes averaged 2.4 persons. This indicates that the region contains a wide variety of family units, ranging from singles and couples to extended families.

Employment and Income

According to the California Employment Development Department, the number of jobs in the Coachella Valley increased from 74,146 in 1991, to 100,231 in 1999. This represents a gain of 26,085 jobs or 35.2% over the eight-year period.⁵ The region's largest employment sectors are retail trade, agriculture, and hotel and amusement. Other growing industries include construction, business services, and distribution and transport services. In the Mountain Communities, there were 3,516 employed persons in 2000, representing 39.2% of the total population.

Median household incomes in the Coachella Valley have risen steadily over the past decade. In 1999, they ranged from a low of \$13,525 in Indio, to a high of \$93,986 in Indian Wells. These data suggest a wide variation in residents' economic situations and expendable incomes. In the Mountain Communities, the median household income ranged from \$25,824 in Mountain Center, \$27,692 in Anza, and \$34,408 in Idyllwild in 1990. By 2000, the median household income had increased to \$43,487, \$30,338, and \$35,746, respectively. Clearly, demographics in Mountain Center have changed to include a more affluent component of the population.

Historic Overview of Regional Economy. Agriculture was the Coachella Valley's dominant industry during the first half of the twentieth century. The region's main staple, the date palm, was introduced around the turn of the century by the U.S. Department of

⁴ Ibid.

⁵ California Employment Development Department data, as provided in "Coachella Valley Economic Review," John E. Husing, Ph.D., July 22, 2000.

Agriculture, and the industry soon expanded to include the cultivation of grapes, citrus, and other fruit and vegetable crops.

As early as the 1920s, however, hotels, restaurants, country clubs, and casinos began to emerge in the upper Coachella Valley, especially in the Palm Springs and Cathedral City areas. Equestrian camps and resort hotels, including the historic La Quinta Hotel, were constructed in the lower valley. By the 1930s, the character of the region had been transformed toward the budding resort industry, with the marketing and construction of weekend homes throughout the valley. A new era of development emerged during the post-World War II era, giving the region its predominant image as a destination resort community.

Over the past three decades, the Coachella Valley has expanded to become one of the premier destination resort areas in the country. Today, it is characterized by high quality hotels, convention facilities, spas, and planned residential golf course developments. Approximately 3 million (overnight) visitors come to the Coachella Valley annually, and tourism has an estimated \$1.5 billion annual economic impact on the region.⁶

In the Mountain Communities, employment has been tourism based for a long period of time. The limited employment opportunities in these areas have resulted in residents seeking employment in other communities, including the Coachella Valley and Hemet. Since growth rates in these communities are also slower than those of the Coachella Valley, localized employment growth is also expected to be slow.

3.Q.2. Socio-Economic Issues Specific to BLM and Forest Service Lands

Federal lands within the planning area provide a variety of direct and indirect economic benefits to the general economy. These include the granting of rights-of-way on BLM and Forest Service land to provide for solid waste transfers, water agency storage and development and electricity lines as well as commercial recreational uses such as ecotourism, camping and hiking.

The BLM and Forest Service lease lands with locally important resource value. Grazing rights are allowed on one allotment within the National Monument, and provide a limited economic value.

Commercial ecotourism, camping, hiking, mountain biking, and equestrian use has also become a progressively more important local economic benefit, enhancing the resort industry in the planning area and providing opportunities for increased employment in nature- and outdoor-oriented industries and programs. The economic value of BLM and Forest Service open space is increasing as nearby development continues to lessen the amount of non-Federal open space.

3.R. Environmental Justice and Health Risks to Children

Executive Order 12898. Environmental justice refers to the fair and equitable treatment of all individuals, regardless of race, ethnicity or income level, in the development and implementation of environmental laws and policies. In February 1994, the President of

⁶ “Palm Springs Desert Resorts Fact Sheet,” Palm Springs Desert Resorts Convention and Visitors Bureau, Spring 2000.

the United States signed Executive Order (EO) 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which is one of the principal mechanisms used to implement environmental justice concepts at the federal level. Its fundamental objective is to require each federal agency to “make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.”⁷

The EO was accompanied by a memorandum, which emphasized the importance of the National Environmental Policy Act (NEPA) as a means for implementing environmental justice principles. The memorandum directs federal agencies to analyze the environmental effects, including human health, economic, and social effects, of their actions where such analysis is required by NEPA.

Executive Order 13045. Executive Order (EO) 13045, entitled *Protection of Children From Environmental Health Risks and Safety Risks*, was signed by the President on April 21, 1997. It requires all federal agencies to assure that their policies, programs, activities, and standards address disproportionate health risks to children that result from environmental health or safety risks. The EO defines environmental health and safety risks as those that are attributable to products or substances the child is likely to come into contact with or ingest, such as air, food, water, soil, and products children use or are exposed to.

Implementation of EO 12898 and 13045 BLM and Forest Service will utilize the NEPA process to implement these Executive Orders by describing the population affected by the proposed National Monument Management Plan (below) and addressing disproportionately high adverse impacts of the proposed action on special populations (Chapter 4).

It is important to recognize that most BLM and Forest Service lands in the National Monument planning area are uninhabited. Nonetheless, BLM and Forest Service lands do not exist in a vacuum. They are located near and around resort-residential communities with a permanent population of over 275,000, and are frequently utilized by local residents and visitors alike for recreational and educational purposes. Certain parcels are also accessed by BLM and Forest Service staff and authorized individuals. The following discussion describes special populations in the in the National Monument planning area, as these groups are likely to utilize BLM and Forest Service lands.

Minorities and Minority Populations

The majority of residents in the National Monument planning area categorize themselves as “white”. Nearly half of the population in the Coachella Valley identifies itself as Hispanic or Latino while less than 13% of the Mountain Communities’ population identified themselves as Hispanic or Latino. Minority populations are generally well integrated and dispersed geographically throughout the Coachella Valley, and there are few isolated minority neighborhoods or districts in the region.

⁷ “Environmental Justice: Guidance Under the National Environmental Policy Act,” Council on Environmental Quality, December 10, 1997.

Low Income Populations

The National Monument planning area population is characterized by a diverse range of incomes. Residents include young working families, middle and upper class professionals, retirees on fixed incomes, those receiving public assistance, and seasonal workers employed in the region’s agricultural and resort industries. According to the data represented in Table 3-13, the three lowest median household incomes are: Mountain Center, Indio and Palm Springs.

Table 3-13: Comparison of Income Levels in the National Monument Planning Area, 1990

| | Median Household Income |
|---|--------------------------------|
| Cathedral City | \$30,908 |
| Indian Wells | \$87,942 |
| Indio | \$25,976 |
| La Quinta | \$39,572 |
| Palm Desert | \$37,315 |
| Palm Springs | \$27,538 |
| Rancho Mirage | \$45,064 |
| Mountain Center | \$25,824 |
| Anza | \$27,692 |
| Idyllwild | \$34,408 |
| Source: U.S. Census Bureau, Census 1990 | |

Native American Populations

As described earlier, the percentage of local residents identifying themselves as Native Americans/Alaska Natives account for an extremely small percentage of the regional population and are generally well dispersed geographically.

However, an estimated 20,000 acres of land in the National Monument Management Plan region consists of Native American reservation lands. These lands include Tribal trust, allotted, and fee (privately owned) lands under the jurisdiction of the Agua Caliente Band of Cahuilla. Although Indian land is not subject to the provisions of the National Monument Management Plan, the Agua Caliente Band of Cahuilla are an important partner in the management of the National Monument. In addition, they represent an important local population that may utilize BLM and Forest Service land for cultural, recreational and other purposes.

In addition to the Agua Caliente reservation lands there are three other Native American Reservations (Morongo Band of Mission Indians, Torres-Martinez Band of Desert Cahuilla Indians and Santa Rosa Band of Mission Indians) located within or adjacent to the National Monument. The Augustine Band of Mission Indians, Cabazon Band of

Mission Indians, Cahuilla Band of Mission Indians, Los Coyotes Band of Mission Indians, Ramona Band of Cahuilla Mission Indians, Sobaba Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians have reservations that are located to the west, east and south within a short distance of the National Monument. These Tribes also have a historic, cultural and recreational interest in the lands within the National Monument boundary.

Children

Although the Coachella Valley is nationally recognized as a winter haven for retirees and other seniors, much of the valley's year-round population includes younger families with children. Children are generally well distributed geographically throughout the planning area.

3.S. Health and Safety, Hazardous Materials

The manufacture, transport, and disposal of hazardous and toxic wastes have become a progressively important issue, especially in desert areas where potential impacts are erroneously considered to be less than in other areas. Regulation of toxic and hazardous materials lies with a variety of federal, state, and local agencies, including the U.S. Environmental Protection Agency, the California Office of Health Planning and Development, and county health departments. Applicable federal regulations include the Resources Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), the Safe Drinking Water Act (SDWA), the Federal Clean Air Act, and the Toxic Substances Control Act.

Counties are authorized by state law to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous materials and waste products. In the National Monument planning area, the California Regional Water Quality Control Board (CRWQCB) and area water districts maintain information concerning contaminated water wells and groundwater. The state and federal Environmental Protection Agencies (EPA) and the State Department of Health also provide information concerning specific hazardous waste sites.

There are no large industrial or commercial users of hazardous materials in the planning area or area of influence, although there are identified hazardous/toxic material small quantity generators are associated with commercial, industrial and medical operations. These have the potential to be associated with accidental spills, purposeful illegal dumping, air emissions, and other uncontrolled discharges into the environment. Improper use and management of these materials pose a significant potential threat to the environment.

Products, chemical and purified chemical compounds, and elements that are considered hazardous or toxic exist in wide variety and are used in households, commercial businesses and industrial operations and processes. They range through home and pool related chlorine products, chemical fertilizers, herbicides and pesticides, stored fuels and waste oil, chemical solvents and lubricants, and a variety of medical materials, including biological and radioactive wastes.

Hazardous Waste Management Plans. Jurisdictions responsible for land management coordinate with appropriate county, state and federal agencies in the identification of

hazardous material sites, and their timely cleanup. In order to manage these issues, the jurisdiction may establish and maintain information on these sites, and periodically monitor facilities and operations that produce, utilize or store hazardous materials. By staying involved in multi-agency monitoring of illegal dumping, conferring in the regulation of underground storage tanks and septic systems, and regulating the transport of hazardous materials through the planning area, BLM and Forest Service can better protect against potential hazards associated with hazardous materials and wastes.

The BLM and Forest Service coordinate and cooperate with Riverside County in addressing illegal use and/or dumping of hazardous and toxic materials on public lands. The Riverside County HWMP was adopted by the Board of Supervisors and approved by the California Department of Health Services in 1990. The County HWMP identifies the types and amounts of wastes generated in the County and established programs for managing these wastes. The Riverside County HWMP also assures that adequate treatment and disposal capacity is available to manage hazardous wastes generated within its jurisdiction, and addresses issues related to manufacture and use.

The state and federal Environmental Protection Agencies (EPA) and the State Department of Health also supply information concerning specific hazardous waste sites and their locations. The California Department of Industrial Relations, Cal-OSHA Division, regulates the proper use of hazardous materials in industrial settings. Private database screening and documentation services are also available, which will search, extract, and summarize reports on contaminated site recorded in various state and federal databases.

Household Hazardous Waste. Residential use of household chemicals, automobile batteries, used oil, paint and similar materials result in hazardous waste. “ABOP” (Antifreeze, Batteries, Oil and Latex Paint) disposal sites are available for planning area residents to dispose of these materials. These facilities will take up to 5 gallons or 50 pounds of materials per trip, and all materials must be clearly marked and sealed. Local residents may also properly dispose of used motor oil through a variety of local programs, including curbside pick up. Riverside County also organizes Household Hazardous Waste collection days throughout the year at fire stations and city corporation yards across the valley.

Hazardous Materials Response. Hazardous and toxic materials are determined critical by county health departments, which can require owners of storage facilities to test, temporarily close and/or remove all hazardous liquids, solids or sludge located on the site. Leaking underground storage tanks must be removed by contractors having Hazardous Waste Certification and a General Engineering license. Between cessation of storage and actual closure, monitoring is generally required by the site’s operating permit. When soils contamination is detected, the clean up procedure to be followed, the degree or level of cleanliness required by the regulator, and the method of treatment (if permitted) will be directed by the county hazardous materials division and/or the Regional Water Quality Control Board.