

FROM NEGLECTED SPACE TO PROTECTED PLACE
AN ADMINISTRATIVE HISTORY OF
MOJAVE NATIONAL PRESERVE

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LIST OF ABBREVIATIONS

ACLU – American Civil Liberties Union
AML – Abandoned Mine Land
ATV – All-Terrain Vehicle
AUM – Animal Unit Month
BLM – Bureau of Land Management
CalTrans – California Department of Transportation
CDF&G – California Department of Fish & Game
CDPA – California Desert Protection Act
DOI – Department of the Interior
DTRP - Desert Tortoise Recovery Plan
EIS – Environmental Impact Statement
EMNSA – East Mojave National Scenic Area
FLPMA – Federal Land Policy and Management Act
FMO – Fire Management Officer
FWS – U.S. Fish & Wildlife Service
GMP – General Management Plan
HAZMAT – Hazardous Material
LRIP – Long-Range Interpretive Plan
MOU – Memorandum of Understanding
NEMO – Northern / Eastern Mojave Planning Effort
NPS – National Park Service
NRA – National Recreation Area
OHV – Off-Highway Vehicle
SET – Special Event Team
UP – Union Pacific Railroad
USGS – United States Geological Survey
WSA – Wilderness Study Area

One: INTRODUCTION

The eastern portion of the Mojave desert is a beautiful place. Successive mountain ranges, trending from southwest to northeast, tower above broad valleys with sweeping vistas. Shimmering bright playas, sun-baked remnants of Pleistocene lakes, occupy the lowest areas. Several diverse plant communities successively populate the gently sloping alluvial plains, known locally as bajadas, as elevation increases. The Mojave-signature Joshua tree is found throughout the area, and two forests, on Cima Dome and in Lanfair Valley, have the densest concentrations of the plant in the world. In the mountains, the pinyon-juniper community of the Great Basin predominates. At the top of some of the highest Mojave peaks, relic stands of white pine and Douglas fir were left stranded after the last glaciers retreated ten thousand years ago. Extinct volcanoes and lava flows, some estimated to be only hundreds of years old, sit less than thirty miles from huge sand dunes that make booming noises when fine grains of sand rub against one another. Much of the land in question is home to the endangered desert tortoise, and bighorn sheep live in the steep mountains. A cornucopia of wildflowers erupts after every desert rain, temporarily masking the dominant environmental fact that the area is *dry*.

The eastern Mojave is today largely encompassed by the Mojave National Preserve, a National Park Service unit in southern California created in 1994. The history of the area of the Mojave National Preserve since European contact can be explained as the function of two factors: arid desert lands, and urban proximity. Urban proximity itself gave rise to two ideologies that conflicted over the best uses for desert spaces, and in so doing, shaped the Mojave National Preserve as a Park Service unit.

The history of the eastern Mojave desert shares many characteristics with the history of other places in the rural desert west. Most of Nevada, much of Utah, and large portions of southern California, Arizona, and New Mexico have had similar development patterns. The



Illustration 1 - The Joshua tree and buckhorn cholla are distinctive Mojave desert vegetation. (Photo by Eric Nystrom, 2001.)

military made the land safe for whites at the cost of the Native Americans who called the area their homeland. Geological forces deposited large varieties of metals and minerals, and Euro-American prospectors were aided in their searches for wealth by a lack of vegetation to obscure their views. Small scale mining and prospecting, with occasional rich finds, was the norm. Arid-lands ranching flourished, involving vast tracts of public land controlled by cattle entrepreneurs who owned the only sources of water. As in other deserts, cattle ranching

was successful in a way that much other economic activity was not, but margins were slim and the consequences for the environment were largely permanent, as native biota gave way to exotic grasses and woody shrubs proliferated to replace native forbs. Transcontinental railroads pushed through the Mojave, like other deserts, on their way to distant markets. After 1910, homesteaders acting with the Progressive-era faith in the potential of mankind to solve any problem attempted to farm the east Mojave. Unlike the deserts of central Nevada, Utah, Arizona, and New Mexico, where the Newlands Reclamation Act of 1902 took hold and made at least parts of the desert bloom, no nearby rivers could be tapped for irrigation in the eastern Mojave. Optimistic farmers utilized dryfarming techniques, and a series of wet years prolonged

the experiment, but the average rainfall - less than eight inches per year in most places - proved too little for even the most virtuous farmer.

As southern California and the city of Los Angeles grew throughout the twentieth century, the eastern Mojave remained a relatively unpopulated desert, but the patterns of development and use of the area took on new forms as a result of its proximity to a major urban area. Certainly, the destination of southern California explains the presence of railroads in the Mojave - the Union Pacific, which runs through the middle of today's Mojave National Preserve, was originally called the San Pedro, Los Angeles, and Salt Lake Railroad. Roads through the desert terminated in southern California, and author John Steinbeck's Okies traveled Route 66, the "mother road," through the Mojave to the prosperity of areas closer to the coast. Later interstate highways followed 66 and Highway 91, the highway to Las Vegas, and moved travelers *through*, but not *to*, the eastern portion of the Mojave desert.

Los Angeles and the rest of the Sunbelt grew enormously during World War II, and the demographic changes sparked by the war changed the nature of use of the desert. After millions of G.I.s got to know the desert through General George Patton's desert training camps, riding around the Mojave in jeeps and tanks, many post-war recreationists decided to do the same thing without the artillery. Off-road motorcycles were a postwar innovation, and the California deserts seemed like an excellent place to use them - the deserts were close to the population centers, only a few hours away from San Fernando Valley. Residents of the suburbs found the desert a nice place for solitude, but close enough to be convenient. Seemingly, no one cared about the land and people could use it as they wished, and no one seemed to live there either.

Eventually, the pressure of urban recreation on the desert became too much for the land to absorb without obvious long-term impacts. Spurred to action by the inaugural run of a massive cross-desert motorcycle race - the Barstow to Vegas - in 1967, the U.S. Bureau of Land Management (BLM) focused its attention on regulating users of off-road vehicles and other recreation in the desert. BLM had no enforcement powers, but the Federal Land Policy and Management Act, known as FLPMA, gave BLM authority to regulate beginning in 1976.

FLPMA also contained a special provision which required BLM to develop a comprehensive management plan for all of the southern California desert under its control. The result, published in 1980, was known formally as the California Desert Conservation Area Plan but universally as simply the Desert Plan. The Desert Plan prohibited certain activities and encouraged others, provided four land classifications to regulate use of federal desert, and created areas of protection, but the underlying premise of the whole document was that too many people, most of them from the greater Los Angeles area, were trying to use the desert and were harming it in the process.

By the time restrictive desert planning began in the mid-1970s, expansion of the suburbs already began to consume open areas closest to the city, and recreationists were pushed farther east in their desire for new places. In the context of the 1970s, where suburban sprawl was being systematically challenged by environmentalists as ugly and evil and the declining economy inspired pessimism in blue collar workers, the relatively empty deserts to the east of L.A. were seen as a buffer to urban society. Some people, who may broadly be described as “conservatives,” saw the desert as a repository of American values, a vaguely Turnerian “empty” frontier where ruggedness reinvigorated the self, where guns could be fired without danger, where the individualist, perhaps embodied by a man on a high-speed motorcycle, could exercise his personal freedom to recreate however he saw fit. Residents of the desert, mostly ranchers and miners, were lauded by conservatives for their adherence to a system of hard work extracting wealth from the land, a way of life that seemed a throwback to a better America at a time of widespread manufacturing layoffs, the OPEC oil crisis, and rampant inflation. Another group, who may be broadly called “environmentalists,” also praised the desert. For them it was a repository of open space, which seemed to be in dramatically short supply as they watched closer places become manufactured suburbs. It was a vessel of biodiversity - as more became known about the extraordinary species native to the desert, a post-Earth Day concern with the environment elevated the “unspoiled” desert to high status. And it was beautiful, in part because it was so empty.

These two constituencies, conservatives and environmentalists, both loved the desert, but had clearly differing ideas for its future. Conservatives saw mining, ranching, and off-road recreation as activities that enhanced the value of the desert, while environmentalists viewed those same activities as destroying the landscape, ruining the ecosystem, and damaging fragile desert lands. The Desert Plan, finalized in December 1980, attempted to split the difference between these groups. In the eastern Mojave, it created the East Mojave National Scenic Area, the first designation of its kind, which was intended to placate those environmentalists who wished to turn the area into a national park, while also permitting conservative uses of the land like ranching and mining to continue. During the early 1980s, James Watt, Ronald Reagan's Secretary of the Interior, attacked environmental programs across the board, and decimated BLM's institutional culture by laying off some employees with pro-environment views and involuntarily transferring others in order to create a culture of fear dominated by a Sagebrush Rebellion-inspired, use-based approach to managing the bureau's lands. Desert Plan amendment cycles in the early 1980s reflected this change of managerial attitude. Beginning in 1982, the BLM proposed amendments that seemed, at least to environmentalists, to threaten to turn the desert over completely to consumptive and destructive uses.

The environmentalists responded by working to achieve more permanent legislative protection for the desert. By 1984, a group of conservation organizations, led by the Sierra Club and working together as the California Desert Protection League, were creating maps and legislation that would expand Death Valley and Joshua Tree National Monuments into national parks, create a third so-called Mojave National Park out of the East Mojave National Scenic Area, and designate dozens of BLM-managed wilderness areas in the desert. Senator Alan Cranston introduced this legislation for the first time in 1986, but the California Desert Protection Act or CDPA, as the bill was known, did not meet with immediate success.

Conservatives and environmentalists battled over the bill and their conflicting interpretations of the best use for the desert for almost a decade. Over time, environmentalists made a series of compromises to placate individual foes - leaving a group of mining claims outside park boundaries, for instance. Occasionally, conservatives forced their issues on the bill,

most significantly when they added hunting to Mojave National Park and made it a National Preserve instead. Differences of opinion between Democratic Senator Cranston and his Republican California colleagues, first Pete Wilson then John Seymour, prevented the Senate from acting on Cranston's proposal, even though the House passed the bill in 1991. In her 1992 campaign to fill out the remaining 2 years of Wilson's old Senate seat, Democrat Dianne Feinstein's support of the desert bill was a factor in the race. After she was elected, Feinstein made passage of the CDPA her top priority, as she wanted to have a large legislative success to show to voters in her 1994 reelection drive. The 1992 elections brought a Democratic administration into power, which along with Feinstein's Democratic senatorial counterpart from California, Barbara Boxer, removed partisan roadblocks that had prevented the bill's passage in earlier sessions. Still, passage was not assured - Republican opposition was fierce, and nearly scuttled the bill on several occasions. Senate Majority Leader George Mitchell eventually held the Senate in session after it was scheduled to adjourn in order to break a Republican filibuster and pass the CDPA into law.

When Bill Clinton signed the California Desert Protection Act on October 31, 1994, he created with the stroke of a pen a new unit of the National Park Service in the eastern Mojave desert. A team of law enforcement rangers secured the area and posted signs to alert users of the new wilderness closures, while a group of administrators attempted to start a park from scratch. Many of these first park staffers had little administrative experience, and the park's startup was stunted because of a lack of office space and equipment. Within a few months, the new park staff grew rapidly and began to set programs into place, but local residents, almost all of them of conservative views, felt like they were not being taken into consideration.

After the so-called "Republican Revolution" of November 1994 swept the GOP into power in both houses of Congress, talk of scaling back environmental regulations in the name of increasing the efficiency of government was common in Washington. Reacting to constituent concerns and operating in the context of the Republican rollback of environmental measures, longtime U.S. Representative Jerry Lewis, whose district included the Preserve, maneuvered to pass an appropriations bill that gave the National Park Service exactly *one dollar* to administer

Mojave National Preserve, and gave the rest of its appropriation to the BLM to manage the area in a multiple-use fashion. Over several months, as President Clinton and Republican leaders Newt Gingrich, Trent Lott, and Bob Dole fought over the budget, the park was stuck in limbo. Some of the staff transferred to other parks, and the skeleton crew that remained lived in fear of their jobs evaporating. Clinton twice vetoed budgets he believed were too environmentally destructive. His vetoes resulted in two shutdowns of governmental services, but Republicans were blamed by the media and much of the public for the problems. In April 1996, Republican leaders sacrificed Lewis' Dollar Budget provision in order to pass the budget, and Mojave National Preserve's future looked less in doubt. At its core, the Dollar Budget fight reflected the differing visions of conservatives and environmentalists for the eastern Mojave desert, a split that was not changed by the passage of the CDPA.

Even before the dollar budget crisis had been resolved, the Preserve undertook an innovative planning effort. The Department of the Interior viewed the CDPA parks, plus BLM lands, as an excellent opportunity to experiment with bioregional, interagency planning efforts. The planning team was led by the NPS, and was located at Mojave National Preserve headquarters in Barstow. Ultimately, multiagency planning did not come to fruition because of interagency tensions, so the planning team developed a General Management Plan for the Preserve on its own. This park-based planning team was unusual, as most planning for the park service is conducted out of a central office. In its successful completion of a park-based plan, Mojave National Preserve could provide a model for future park planning.

The Preserve has also had to deal with a series of issues that stem from the negotiations between conservatives and environmentalists that resulted in the formation of the park and that are related to the area's history as a worked landscape. When the park was established, more than 15,000 mining claims were active for various sites in the park, and more than 400 abandoned mine sites exist inside park boundaries. Grazing was permitted to continue by the CDPA. A railroad runs through the park, as do a petroleum pipeline and hi-tension power wires, providing scenic intrusions and headaches for park managers. Hunting is also expressly permitted in the park by its enabling act, which puts the Park Service in the delicate position of

attempting to maintain natural wildlife so they can be shot by trophy hunters. Mojave's urban proximity brought big-city problems - speeding, graffiti, hazardous materials, and drug trafficking - to the park, forcing cash-strapped management to adjust priorities.

These issues were the fruit of the compromises between conservatives and environmentalists that were made in the process of establishing the park. The landscape and management of Mojave National Preserve both reflect a heritage of conflict over the best use of particular spaces, and a legacy of impacts from urban proximity. Study of the park is therefore instructive both as an example of the price of accommodation, as interest groups' concerns are addressed and neutralized through the democratic process, and as a vivid lesson of the extent to which urban growth in the Southwest affects everything and everyone around it.

Two: PRELUDE TO SYSTEMATIC FEDERAL MANAGEMENT

The history of the eastern Mojave prior to systematic federal management is long and varied. Most of the challenges and opportunities faced by Mojave National Preserve have their roots in the history of human habitation of the area. Likewise, many of the outstanding resources and attractions, as well as the less attractive features of the park, are the result of human efforts. As such, understanding the history of the eastern Mojave before systematic federal management is crucial to understanding the area afterward.

Individual perceptions of the eastern Mojave varied by cultural affiliation and the individual's potential for economic gain from the area. Native Americans such as the Chemehuevi and the Mohave understood the area as a homeland and a transportation corridor. Early Europeans and Euro-Americans viewed the desert as an unremittingly hostile place. Ranchers and miners envisioned economic opportunity through resource extraction, while homesteaders imagined land ownership and yeoman freedom. Beginning in the nineteenth century and continuing throughout the following century, railroads, power and pipeline companies, and migrants on Route 66 alike saw, in John Steinbeck's words, a place that one must "get across." The U.S. Army looked at the Mojave as a facsimile of North Africa, suitable for training, and Americans after World War II understood it as recreational space. The first threads of systematic management could be found in the post-Taylor Grazing Act (1934) ranching operations, but comprehensive federal control did not happen until widespread, destructive recreation forced the government to take action in the 1960s.

Native Americans and Anglo Contact

About 11,000 years ago, the region's ecological zones were one thousand feet lower in elevation than today due to the cooler and wetter weather patterns of the waning Ice Age. Streams flowed and lakes existed where dry playas are today. The relative abundance of plant



Illustration 2 - Prehistoric petroglyphs, like these at Indian Well, are found at sites scattered throughout Mojave National Preserve. (Photo by Eric Nystrom, 2001.)

communities supported wildlife and indigenous peoples who depended upon the natural resources. While clear archaeological evidence of human presence in this early time are sparse, over 1,300 later prehistoric and historic period archaeological resources have been recorded for the large Preserve area, including 65 rock image sites. Museums and professional researchers have made significant collections of artifacts since 1925.

In general, these tribal peoples occupied the lands as small, mobile social units of related families who traveled in regular patterns and established summer or winter camps in customary places where water and food resources were available. Archaeologists named a series of five manifestations of Native American occupation, which were believed to describe changes in climate, chipped stone technology, and subsistence practices of these early peoples. These periods covered time intervals from about 5000 BC to AD 700-900. At that point, the Mojave desert area, unlike other portions of California's desert region, was influenced by native peoples now called 'Ancestral Pueblo' who established farming villages along the Muddy, Virgin, and

upper Colorado rivers. Their culture reached into today's Preserve lands at turquoise sources and via trade trails as far as the Pacific coasts. Later, however, Ancestral Pueblo peoples abandoned their territory and were replaced by Shoshonean and Paiute peoples after about AD 1000. In addition, native peoples of the lower Colorado River basin speaking Yuman languages expanded their river zone territory and utilized some desert lands as well.

Modern Native American “tribes” were products of interactions with the American military and legal system as much as modern reflections of pre-contact Native American land use patterns, and the land allocated to these groups frequently did not reflect the actual extent of their pre-Anglo homelands. No tribes directly control any lands in the Preserve, but historical, archaeological, and ethnographic information indicates that ancestors of the modern Chemehuevi and Mohave Tribes traveled, camped, hunted, and resided at various places now in the Preserve. Oral traditions and historical information compiled into maps for the 1950-1960s Federal Indian Lands Claims cases showed Chemehuevi land knowledge and uses. Some Mohave Tribal members have family histories of being on lands now within the eastern areas of the Preserve. Certainly, the very detailed and lengthy “song cycles” of the Chemehuevi identify many places within the Preserve with names and events of supernaturals who performed various activities there. The “song cycles” were a type of oral map of the territory which had great value to travelers moving through the area or following seasonal foraging patterns. However, both tribal groups sustained hostilities between themselves, which was noted by Spanish Friar Francisco Garcés in 1776. Euro-American contact with peoples now called Chemehuevi or Mohave increased in the nineteenth century.¹

The Desert Chemehuevi were Native Americans who actually lived most of the year in the area of the Preserve. Limited food and water resources sustained a low Desert Chemehuevi

¹ Lorraine M. Sherer and Frances Stillman, *Bitterness Road: The Mojave, 1604-1860* (Needles, CA: Mohave Tribe / Ballena Press, 1994). I am indebted to Roger Kelly, Senior Archeologist, NPS Oakland, for much of the information and wording in the preceding paragraphs. Comments by Roger Kelly on first draft, June 25, 2002. For information about Chemehuevi songs, consult Carobeth Laird, *The Chemehuevi* (Banning, CA: Malki Museum Press, 1976), 9-19.

population density. When food was abundant, it would be dried and cached for later use. The area of the Preserve probably never supported more than about 150 people at any one time.²

While the Chemehuevi were the primary inhabitants of the area now encompassed by the Preserve, the desert and the park itself are named for a different group of Native Americans - the Mohave.³ The Mohave were agriculturalists who planted in the flooded plain of the Colorado River. This agricultural lifestyle generated food surpluses, which enabled them to support a sizable population in the river basin area, numbering in the thousands. The Mohave frequently traded with other Native American groups to the west and east, and had a particular fondness for seashells traded by Indians on the California coast. The Mohave had a network of trails across the desert from waterhole to waterhole. The Mohave bragged to early European visitors that a powerful Mohave runner could make the trip to the Pacific coast, more than 150 miles long, in three days. The Mohave guided some of the first non-Indian travelers over this network of trails, including friar Garcés in 1776 and American trapper Jedediah Smith in 1826. Their network of trails, now known as the Mojave Road, became one of the main routes used by the government and other travelers to cross the desert before the advent of the railroad.

The Mohave were friendly to Garcés and Smith at first, but when Smith returned to recross the river in 1827, the Mohaves attacked as his party was crossing. Historians later determined that other trappers, arriving between Smith's two visits, killed several Mohaves and antagonized the rest, prompting the tribe to exact revenge on the next Euro-Americans they saw. Half of Smith's party was killed, and the explorer led the survivors back across the desert trails to relative safety in California. This incident created the reputation of the Mohaves as a fierce band

² Chester King and Dennis G. Casebier, with Matthew C. Hall and Carol Rector, *Background to Historic and Prehistoric Resources of the East Mojave Desert Region* (Riverside, CA: Bureau of Land Management, California Desert District, 1981), 20.

³ Generally, the tribe and places named after the tribe in Arizona are spelled "Mohave," the fort in Arizona, the desert, and other places in California are spelled "Mojave." See Dennis Casebier, *The Mojave Road, Tales of the Mojave Road #5* (Norco, CA: Tales of the Mojave Road Publishing Co, 1975), 182n1.

that should be avoided.⁴ Further encounters with trappers in the late 1820s and early 1830s led to more bloodshed by Indian and Anglo alike. Historians hypothesize that the Old Spanish Trail, which runs to the north of the Preserve, was created in the 1830s specifically to bypass the Mohave.⁵

In 1848, the United States signed the Treaty of Guadalupe Hidalgo to end the Mexican War and received almost all of the territory that is now the American Southwest, including all of California and all of the area of the Mojave National Preserve. Interest in building a transcontinental railroad was high, but the choice of route was difficult due to sectional controversies. In 1853-54, the United States sent several survey teams into the field to report on the feasibility of the various routes. One of these was the so-called 35th Parallel Route, which cut through the eastern Mojave. Two survey parties took the field: one, under Lt. Robert S. Williamson, explored from the western side and proceeded as far as Soda Lake; the other, under Lt. A.W. Whipple, proceeded from Arkansas to Los Angeles, crossing the Preserve along the route of the Mojave Road.

Later attempts proved more successful at opening the cross-desert route now known as the Mojave Road. Between 1855 and 1857, the General Land Office surveyed township lines throughout the area. This effort was largely wasted when the location monuments could not be rediscovered by others, but the small number of people on the surveying teams became very familiar with the desert and later served as guides for other expeditions. In 1857, Edward F. Beale surveyed a wagon road across the Arizona desert, and crossed the Mojave along the route of the future Mojave Road. Combined with his eastbound crossing in 1858, Beale's success proved the viability of the wagon road.⁶

⁴ This incident was likely precipitated by violence toward the Mojave by an earlier trapping party, under the command of Ewing Young. Later trappers, such as Peter Skene Ogden, also massacred Mohaves without warning, contributing to the tension. Casebier, *Mojave Road*, 24-28.

⁵ Casebier, *Mojave Road*, 30-31.

⁶ Casebier, *Mojave Road*, 57-66.

Conflict between Native Americans and Euro-Americans was the catalyst for the establishment of a lasting federal legacy in the Mojave desert. The Mohave attacked emigrant wagon trains in 1858, prompting a substantial military response.⁷ Major William Hoffman led a unit of over 600 men to the Colorado River, homeland of the Mohave, and demanded surrender. Prudently, the Mohave complied, and Hoffman set up a military post on the eastern bank of the Colorado River that soon became known as Fort Mojave. The effort to supply the fort caused wagon teams from Los Angeles to cross the eastern Mojave regularly until the start of the Civil War in 1861, and turned Beale's path into a true wagon road, easily followed. Some improvements were made to the route at this time, such as the construction of a water stop known as Government Holes.

The U.S. military spent several months in the eastern Mojave in an ill-conceived attempt to punish Native Americans for a crime they may not have committed. In 1860, two whites were murdered at Bitter Springs, on the Salt Lake Trail, and the attacks were blamed on the "Pah-Utes," though contemporaries and later historians suggested that the attacks were quite possibly carried out by Mormons, rather than Native Americans. Newspapers in southern California whipped the citizenry into a fury, and prompted the army to send a unit led by James H. Carleton, an Army dragoon from Fort Tejon, California, into the desert to exact revenge on the Native Americans supposedly responsible for the attacks. Carleton's troops built a small fort at Camp Cady, and roamed all over the western portion of the present-day Preserve - through Devil's Playground, around the Granite Mountains, and across Soda Lake. The soldiers constructed a small earthen fortification, called Hancock's Redoubt, at Soda Springs. Carleton chased his quarry all over the desert, and executed several in an attempt to impress the remainder with the power of the United States military. At the end of his three-month stay in the desert, the Native American leaders arrived at Camp Cady and asked for peace. Carleton negotiated a

⁷ The emigrant party got no further west than the banks of the Colorado; after being attacked by the Mohave, the emigrants staged a disastrous retreat back to Albuquerque, New Mexico. See Charles W. Baley, *Disaster at the Colorado: Beale's Wagon Road and the First Emigrant Party* (Logan, UT: Utah State University Press, 2002).

cease-fire, but it was ultimately ineffectual as the army did not return later (due to the Civil War) to distribute aid as promised and uphold their end of the bargain.⁸

The Civil War prompted the military to abandon Fort Mojave in 1861. In mid-1863, it was re-activated with a garrison composed of California Volunteers, to provide security for travelers to Arizona. Gold was discovered in Arizona that year and by 1864, the Mojave Road was a crucial supply line to the territorial capital at Prescott. From 1866 to 1868, the mail was carried over the Mojave Road from California to Arizona. Native Americans in the Mojave and in Arizona commenced hostilities, and a group attacked the garrison at Camp Cady. This emphasized the importance of having a military escort for the mail as it crossed the desert. To support this escort effort, the military constructed small outposts at Soda Springs, Marl Springs, Rock Spring, and “Piute” Creek. The army successfully negotiated an end to the conflict in late 1867. Shortly thereafter, a series of heavy rainstorms left the road impassible. This factor, combined with the cumulative losses to Native Americans along the Mojave route, caused the transfer of mail service to a different, more southerly trail. The outposts at Piute Creek, Rock Spring, Marl Springs, and Soda Springs were abandoned.⁹

Military use of the Mojave Road diminished, but civilian use increased as more people were attracted to the desert area. By the 1870s, Fort Mojave was largely supplied by steamboat service up the Colorado River, but miners, prospectors, and ranchers used the Mojave Road to cross the desert until the Southern Pacific / Atlantic & Pacific Railroad was completed in 1883.¹⁰

⁸ Dennis Casebier, *Carleton's Pah-Ute Campaign*, Tales of the Mojave Road #1 (Norco, CA: Dennis G. Casebier, 1972), 1-49; for a biography of Carleton, who had an interesting career in the Civil War-era military apart from his service in the eastern Mojave, see Aurora Hunt, *James H. Carleton: Frontier Dragoon* (Glendale, CA: Arthur H. Clark Co., 1958).

⁹ Casebier, *Mojave Road*, 131-158; also see Dennis Casebier, *The Battle at Camp Cady*, Tales of the Mojave Road #2 (Norco, CA: Dennis G. Casebier, 1972) for more information about the Camp Cady skirmish and its subsequent effect on military escorts for the mail service.

¹⁰ Casebier, *Mojave Road*, 159-161.

Grazing

Grazing of non-native livestock has occurred on most of the land that is now the Mojave National Preserve at one time or another over the past 150 years. Livestock was present in the east Mojave in association with the earliest Euro-American uses of the desert. Travelers over the Mojave Road almost always had some stock with them, and grazed them as they crossed the desert. Several times, herds of hundreds of cattle or sheep were driven over the route across the Mojave either to resupply Fort Mojave on the Colorado River or to move livestock to fresh range in New Mexico and Arizona. Military outposts constructed along the Mojave Road conducted small-scale grazing activity, to supplement the soldiers' food supply.¹¹

Entrepreneurs took advantage of the open range and ready market in the form of miners and later railroad workers by setting up several ranches in the years from about 1875 to the end of the nineteenth century. George Briggs and LeRoy Blackburn, two of the future partners of the Rock Springs Land & Cattle Company, set up their individual ranches around 1875, with headquarters at Marl Springs and Government Holes, respectively. John Domingo raised work horses on a ranch near the Bonanza King mine starting in the early 1880s, and Daniel Kistler raised beef for sale near what is now known as Kessler Spring at about the same time.¹²

In 1894 Blackburn and Briggs, along with other investors, merged their holdings to form the Rock Springs Land & Cattle Company, with headquarters at Barnwell, the northern terminus of the newly constructed Nevada Southern Railway. This move highlighted the fact that while local consumption by miners in the area was important to the firm, so too was the capability to transport cattle to other markets via the railroad. The Rock Springs outfit, like other ranchers in the area, grazed their cattle on public land without fences. They moved aggressively to purchase or trade for ownership of water rights, the possession of which enabled de facto control of the

¹¹ Casebier, *Mojave Road*, 161; King & Casebier, Part 2, 317-318.

¹² D.S. (Dewey) Livingston, "Rock Springs Land & Cattle Company Historic District National Register Nomination," Draft, March 7, 2002, section 8 page 4; Introduction by Dennis Casebier, in Betty Pettit Papierski, *Flat Tires and Coffee Fires: Being Tales From the 7IL Ranch*, Tales of the Mojave Road #20 (Essex, CA: Tales of the Mojave Road Publishing Co., 1993), 13-14.

surrounding range. At various times, the company had more than 10,000 cattle on their fifty square mile range.¹³ The company came into conflict with homesteaders who staked claims in prime grazing territory after 1910. Cattle trampled homesteaders' crops (sometimes at the deliberate urging of the cowboys) and the company denied homesteaders access to water; homesteaders retaliated by helping themselves to free beef. A shootout at Government Holes in 1925 was the final straw for many of the homesteaders who had not yet left.¹⁴

Sidney E. "Boots" Yates arrived in the Valley Wells area in 1894, alone with 27 head of cattle, and set up a ranch of his own. With hard work, good forage years, and a job as foreman of the Rock Springs Company that provided a steady income, Yates worked steadily and built up his ranch. After World War I, Yates started his nephew, L. E. "Boy" Williams, in the cattle business as well. Yates passed away in 1923 and his widow Bessie continued to run the Valley Wells ranch.¹⁵

John Domingo raised horses on his ranch near Providence until 1918, when he sold his holdings. The ranch soon came under control of the partnership of J. N. Sanders and W. W. "Wash" Gibson, who stocked the ranch with cattle and called it the 7IL. Sanders and Gibson hired Frank Murphy, a homesteader from the Lanfair area, to direct the day-to-day operations in the early 1920s.

A massive drought in the late 1920s, culminating in 1928, contributed to changes on the Mojave range. The Rock Springs Land & Cattle Company dissolved under the pressure. Most of the cattle had perished on the range, but the remainder were rounded up and sold in urban markets. In September 1928, the northern part of the Rock Springs range was sold to Bessie

¹³ Barnwell was also known as Manvel, after an executive of the Santa Fe Railway. Dennis Casebier and the Friends of the Mojave Road, *Guide to the East Mojave Heritage Trail: Needles to Ivanpah*, Tales of the Mojave Road #12 (Norco, CA: Tales of the Mojave Road Publishing Co., 1987), 129; Livingston, section 8 page 4-5. The number of cattle run by the RSL&CC are almost four times the number allowed in recent times of full ranch operation.

¹⁴ Casebier, et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 138-139.

¹⁵ Sarah Yates Miles, "Yates Ranch 1894-1952," in Dennis Casebier and the Friends of the Mojave Road, *Guide to the East Mojave Heritage Trail: Ivanpah to Rocky Ridge*, Tales of the Mojave Road #14 (Norco, CA: Tales of the Mojave Road Publishing Co., 1988), 205-214.



Illustration 3 - The 7IL Ranch, in the Colton Hills area, has been operated by members of the same family since 1938. (Photo by Eric Nystrom, 2001.)

Yates and “Boy” Williams. The Rock Springs lands in Nevada were given to long-time ranch superintendent John Woolf, who promptly sold the property to Hollywood western movie star Rex Bell, who together with his wife Clara Bow, lived and worked on the ranch they called the Walking Box. In September 1931, the remainder of the Rock Springs Land & Cattle Company’s holdings were sold to a group headed by Claud Halsell, Sr., who took complete control within a year of the ranch they called the OX.¹⁶ Additionally, Gibson and Sanders sold the 7IL Ranch to Mark and Mary Pettit in 1929.

The late 1920s and 1930s were years of flux in the cattle business in the east Mojave, not only because of the substantial drought, but also due to the passage of the Taylor Grazing Act in 1934. The Taylor Grazing Act compelled individual ranchers to clearly delineate and fence their ranges, and required grazers to pay fees to the government for forage consumed by each animal on public lands. Mark and Mary Pettit sold the 7IL that year, just prior to the signing of the act, in part because of concerns over impending government regulations. The ranch was sold again

¹⁶ Livingston, section 8, page 4-7.

in 1938 to Herbert and Anson Murphy, sons of Frank Murphy who had operated the ranch in the early 1920s.¹⁷ The Yates/Williams partnership that purchased part of the Rock Springs range dissolved in 1937 as a result of the need for smaller holdings that could be fenced, resulting in the creation of the Kessler Springs Ranch for Williams and the Valley View Ranch for Yates. The Valley View was sold to Fred Twisselman in 1940, while the Valley Wells ranch remained in the hands of Sarah Yates Miles, daughter of “Boots” Yates, and her husband, Wade Miles. Fleetwood “Fleet” Southcott Sr. came to the Gold Valley area in 1931, after losing his fortune in the Great Depression, and staked a homestead in Gold Valley with an eye toward developing a ranch.¹⁸

The Taylor Grazing Act caused changes in the ranching landscape in the Mojave, by requiring ranchers to fence their ranges and develop multiple water sources, so that the burden on any one part of the range was lessened. “Boy” Williams and Claud Halsell both constructed large numbers of corrals, improved water sources, and built many miles of fence to bring their Kessler Springs and OX Ranches into compliance. “Fleet” Southcott saw the act as an opportunity to develop a ranch of his own, and leased an allotment in the Gold Valley area before Halsell was able to do so.¹⁹

During the years from the 1940s to the passage of the California Desert Protection Act in 1994, ranching in the area evolved, but remained rooted in old-fashioned methods that worked better on the tough range than modern agribusiness techniques. “Slim” Skinner and his father-in-law, Fred Twisselman, bought the Valley View from Bessie Yates in 1940. Unlike many of the “cow and calf” operations in the desert, such as the OX and Kessler Springs ranches, the Valley View was worked as a steer operation, involving greater risk, but potentially greater profit. Skinner retired in the early 1980s and sold the ranch to Andy Anderson of Montana.²⁰ In

¹⁷ Papierski, 130-131, 154-155.

¹⁸ Miles, 214-215; Bob Ausmus, *East Mojave Diary*, Tales of the Mojave Road #16 (Norco, CA: Tales of the Mojave Road Publishing Co., 1989), 133.

¹⁹ Ausmus, 137.

²⁰ Ausmus, 92; “Valley View Ranch,” in Casebier, et al., *East Mojave Heritage Trail: Ivanpah to Rocky Ridge*, 269-274.

1960 the Murphy brothers sold the 7IL ranch to their nephews, Howard and Jerry Blair, the descendants of whom still own and operate the ranch.²¹ “Boy” Williams sold the Kessler Springs Ranch in 1942, and it passed through the hands of several often-absentee owners until it fell under control of part-owner Gary Overson in 1969. Overson was raised in the east Mojave, first working for the OX Ranch at eleven years of age. Through hard work and a shrewd sense for expansion, he bought out his partners at Kessler Springs within a decade.

Claud Halsell retained ownership of the OX Ranch until 1946, during which time he added a tremendous number of improvements, fenced most of the range, added private lands to the ranch holdings, and moved the ranch headquarters from Barnwell to Ledge, along Lanfair Road. Halsell’s successors, the partnership of Waldo Bozarth and Oscar Rudnick, owned the ranch until 1955 and built a herd from 1,000 to 5,000 animals during that time. Ed Eldridge purchased the ranch from Bozarth and Rudnick, and constructed a large number of fences, corrals, and pipelines to facilitate expansion of his ranching operation. When Eldridge was ready to retire, he sold the OX to Gary and Linda Overson in 1986, giving the Oversons direct control over most of the Mojave range. Later, the Oversons also managed the Valley View and Valley Wells ranches for Richard Blincoe, an Idaho-based agricultural businessman.²²

The lands of the east Mojave have been subject to ranching for profit for more than 125 years, and in that time have indelibly changed. The key to ranching in the Mojave is water, and commercial ranches have developed extensive water systems which are also used by wildlife. Though no definitive data exists, the numbers of both native and non-native species may have been enhanced by the long-term availability of these water sources, making it difficult to discover what pre-ranching levels of wildlife were like. In the same way, long-term ranching has quite possibly been responsible for the creation of some of the Preserve’s most magnificent landscapes, the Joshua tree forests of Cima Dome and Lanfair Valley. Biologist Harold Avery noted that cattle grazing in the Mojave had the effect of increasing the number of shrubs, and

²¹ Casebier in Papierski, 14.

²² Livingston, section 8, pages 6-9; David Darlington, *The Mojave: A Portrait of the Definitive American Desert* (New York: Henry Holt & Company, 1996), 111.

biologist Steve Brittingham noted that shrubs provide microclimates that nurture the development of Joshua trees.²³ Jim Cornett, a biologist with the San Bernardino County Museum, also explained the connection between cattle grazing and increased Joshua tree density as a product of the shelter that unpalatable shrubs give to the infant trees.²⁴ An analogy, focused on the role of subtle human effects in producing landscapes that are seemingly “natural,” can be drawn between Mojave’s Joshua tree forests and the forests of giant sequoias in Sequoia National Park, where researchers in the 1970s realized that the huge trees were largely the product of the Native American practice of setting deliberate fires. Both the sequoias and Mojave’s Joshua tree forests are beautiful attractions, seemingly natural, that were in reality partially formed by human actions over a long period of time.²⁵ In the cultural history of the eastern Mojave and in the landscape itself, the continuous presence of cattle grazing in Mojave National Preserve has left an important legacy.

Mining

Mining activity played an important role in the history of the area that is now Mojave National Preserve. Geologists agree that mineralization is often associated with faults, joints in rock that allow mineralized water from inside the earth to flow toward the surface, where the water evaporates and leaves the dissolved minerals behind. The Mojave has been categorized as extremely geologically active, a consequence of its position at the junction of two of earth's crustal plates. This faulting and other geologic activity left the desert a highly mineralized area,

²³ Harold W. Avery, *Nutritional Ecology of the Desert Tortoise (*Gopherus agassizii*) in Relation to Cattle Grazing in the Mojave Desert* (Ann Arbor, MI: UMI, 1998), 67; Steve Brittingham, *Facilitation of *Yucca brevifolia* Recruitment By Mojave Desert Shrubs* (Ann Arbor, MI: UMI, 1998), 13-28.

²⁴ Darlington, 23.

²⁵ Richard West Sellars, *Preserving Nature in the National Parks: A History* (New Haven, CT: Yale University Press, 1997), 256-257; see Anthony C. Caprio and Pat Lineback, “Pre-Twentieth Century Fire History of Sequoia and Kings Canyon National Parks: A Review and Evaluation of Our Knowledge” *Proceedings of the Conference on Fire in California Ecosystems: Integrating Ecology, Prevention, and Management* Nov. 17-20, 1997, San Diego, CA, available online at http://www.nps.gov/seki/fire/pdf/sd_knwf.pdf for a thorough review of the state of research on pre-1900 fire regimes in Sequoia / Kings Canyon National Park.

with large varieties of precious metals and industrial minerals scattered in small deposits of rich ore. A truly remarkable amount and variety of minerals have been removed from the area of the Preserve, including gold, silver, lead, zinc, copper, tungsten, vanadium, iron, clay, and cinders. Discovery, exploration, and development of the area's rich mineral potential was facilitated by the lack of vegetation, which tended to obscure mineral deposits in more temperate locations. Most mines in the Mojave, particularly precious metal mines, offered small veins of rich ore, which led to occasional bonanza strikes but little long-term profitability. Nevertheless, mining activity was a consistent theme throughout the history of human use of the eastern Mojave desert.

Mining by Americans began in the 1860s, although many discoveries did not develop for several decades until the costs of production and transportation were reduced by the railroad. Before the arrival of Euro-Americans in the area, Puebloan people mined for turquoise at several sites near the boundaries of the Preserve, and persistent traditions of Spanish and/or Mexican mining activity tantalized early American miners.²⁶ Some of the soldiers stationed at the remote outposts along the Mojave Road, especially in the vicinity of Marl Springs, are thought to have conducted small-scale exploration in 1860.²⁷ The following year, gold was discovered in the Vanderbilt area, but thirty years passed before this deposit was developed. In 1863, prospectors discovered silver and subsequently formed the Rock Springs Mining District, also known as the Macedonian Mining District. The intense isolation of the area made profitable excavation almost impossible, and troubles with Native Americans caused its abandonment by 1866.²⁸

The first significant mining activity in the present-day Preserve began in the mid-1860s, and profitably produced silver for more than a decade despite difficulties caused by geographic

²⁶ These were slightly north of I-15, near Halloran Spring, and near Crescent, just over the Nevada border. William E. Ver Planck, "History of Mining in Northeastern San Bernardino County," *State of California Mineral Information Service* vol. 14 no. 9, September 1961, 4; Casebier, et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 276-278. For descriptions and historic accounts of rumors of Spanish mines, see King & Casebier, Part 2, 300-303.

²⁷ Ver Planck, 5.

²⁸ King & Casebier, Part 2, 303-304.

isolation. In 1865, prospectors discovered silver on the north side of Clark Mountain, and organized the Clarke Mining District that July.²⁹ The mountain was named after the district, itself labeled in honor of William H. Clarke of Visalia, California, owner of a popular saloon.³⁰ Ivanpah (later called Old Ivanpah) was the main town, located in the heart of the Clark District on the north side of Clark Mountain. The area, described by one modern author as “the most important [mineral area] ... of all of San Bernardino County,” produced a considerable amount of silver between 1869 and 1880, when profits began to decline and people moved away. The district hung on until the late 1890s, when a crash in the price of silver ended mining there. The extraordinary remoteness of the area caused profitability problems as well.³¹

The other major mine before the turn of the twentieth century was the Bonanza King Mine, located near the present 7IL Ranch. Discovered in 1880 by Ivanpah prospectors, the Bonanza King produced rich silver ore until 1885, and sporadically thereafter. The mill, believed to have been near the current 7IL Ranch headquarters, burned in 1885 and was not immediately rebuilt. Later owners revived the mine several times, most significantly between 1905-07 and 1915-1920. Bonanza King workers lived near the mine in the town of Providence, where stone ruins still stand. The profitability of the mine was helped by the construction of the Atlantic & Pacific Railroad to the south; Bonanza King stock was listed on the New York Stock Exchange, and output eventually totaled more than one and a half million dollars.³²

²⁹ Ver Planck dates the discoveries to 1865, Casebier suggests that the area began to prosper in 1869. Both authors may be right, though Casebier's carefully worded explanation enables a more accurate chronological contextualization of the development of the Ivanpah area. Ron and Peggy Miller split the difference and wrote that the discoveries occurred in 1867. Ver Planck, 5; Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 311; Ron and Peggy Miller, *Mines of the Mojave* (California: La Siesta Press, 1976, 1992), 61.

³⁰ Both the district and the mountain eventually lost the trailing “e.” S.L. Snell, “Clark Mountain Mining District,” in Casebier et al., *East Mojave Heritage Trail: Ivanpah to Rocky Ridge*, 45.

³¹ Ver Planck, 5; Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 311-313; Casebier et al., *East Mojave Heritage Trail: Ivanpah to Rocky Ridge*, 31-43.

³² Alan Hensher, “Providence,” in Dennis Casebier and the Friends of the Mojave Road, *Guide to the East Mojave Heritage Trail: Rocky Ridge to Fenner*, Tales of the Mojave Road #15 (Norco, CA: Tales of the Mojave Road Publishing Co., 1989), 275-283.



Illustration 4 - Stone walls mark the location of 1880s-era Providence, near the Bonanza King Mine. (Photo by Eric Nystrom, 2001.)

Railroads helped stimulate mining in the Mojave. The Atlantic & Pacific was completed in 1883, but had little effect on the Ivanpah mines, which were already in decline. Beginning in 1893, the Nevada Southern Railway, built north from Goffs to Barnwell, tapped the Vanderbilt area, the Sagamore Mine, and other potentially profitable ventures, and helped stimulate prospecting and small-scale mining in the area. Just after the turn of the century, that railroad extended branches from Barnwell through the New York Mountains to the Ivanpah Valley, as well as to Searchlight, both of which coincided with additional mining activity.³³

The “Great Years” of mining in the eastern Mojave, so named because adequate capital financed substantial production of both precious metals and industrial metals, came between

³³ Ver Planck, 5-6.

1900 and the end of World War I. In 1900, a boom at Tonopah, Nevada, sent prospectors throughout the desert region, and a large number of claims were staked in the Mojave. Several Mojave mines were big producers. The Copper World, in the Clark Mountain section of the Preserve, produced 100 tons each day, making it one of the larger copper mines in California at the time. The Von Trigger Mine, later known as the California Mine, produced 30,000 tons of copper between 1907 and 1909. The Paymaster Mine, discovered in 1900 on the slope of Old Dad Mountain, produced some \$75,000 worth of gold between 1910 and 1914. These small bonanzas were short-lived. The depression that followed World War I caused substantial contraction of mining nationwide; smaller producers like those in the Mojave simply found it impossible to operate economically.³⁴

The Great Depression sparked an increase in gold mining in what later became the Mojave National Preserve. The Depression caused an increase in the price of gold, and labor expenses were low. These factors, combined with another key ingredient, described by one author as “men not having much else to do,” caused a surge of gold mining activity in the area. The Colosseum Mine, discovered as early as 1880 but never mined comprehensively, began substantial production in 1929, and the Telegraph Mine, first located in 1930, produced \$100,000 in gold between 1932 and 1938.³⁵

The entrance of the United States into World War II in late 1941 prompted a change in mining activity in the eastern Mojave, accelerating a shift from production of precious metals to excavation of industrial minerals. During World War II, mining of almost all precious metals was halted by executive order to free resources for America's war effort. Some resources made more valuable by the war were found in the eastern Mojave, including copper from several small mines, and tin and tungsten from the Evening Star Mine. The most important wartime production came from the Vulcan Mine in the Providence Mountains, which supplied iron ore

³⁴ King & Casebier, Part 2, 305-306; Ver Planck, 6-7

³⁵ Ver Planck, 7.

for the blast furnaces of Henry Kaiser's Fontana steel mill and turned Kelso into a boom town of 1,500 people.³⁶

After the shutdown of the Vulcan Mine in 1948, much of the remaining mining activity in the eastern Mojave focused on salable materials such as cinders.³⁷ The Aiken Cinder Mine and the Cima Cinder Mine both began operation around 1948, and profitably worked their deposits through the 1990s. The primary exception to the focus on salable minerals was the Mountain Pass Mine, located just outside Preserve boundaries, which was purchased by Molybdenum Corporation of America (Molycorp) in 1951 and remains one of the largest producers of rare earth elements in the world.³⁸

The period between the late 1970s and mid-1990s saw a worldwide revolution in gold mining methods. The development of cyanide heap leaching, first proposed to the mining community by the Bureau of Mines in 1969, enabled miners to recover microscopic amounts of gold.³⁹ This was merely an interesting tool until the price of gold, which had been regulated until the 1970s, was allowed to follow the market. The value of gold skyrocketed, which prompted demand for new sources of the metal. Cyanide heap leach technology permitted companies to extract gold from the tailings left behind at older mines. The new technique also permitted companies to profitably extract gold from mines that had not previously had concentrations of ore rich enough to mine. Three major mines in and around Mojave National Preserve were

³⁶ Marion F. Ely II, "The Vulcan Mine," in Casebier et al., *East Mojave Heritage Trail: Rocky Ridge to Fenner*, 264-268.

³⁷ Salable minerals are also known as non-metallic minerals, and are used in a wide variety of applications, such as building materials, decorative landscaping, and concrete aggregate, among others. Salable minerals should be contrasted with metallic ores, which are milled to produce valuable metals. The two categories are governed by different laws.

³⁸ Ver Planck, 8. See also the section about Molycorp in chapter eight.

³⁹ Certain solutions of cyanide will draw gold from its host rock. The ore (rock containing gold) is ground very finely and piled in layers to form a heap, which ordinarily sits atop a thin layer of plastic sheeting. A dilute cyanide solution is sprayed over the heap, and the runoff, rich with gold, is collected and refined. Cyanide heap leaching technology makes possible the recovery of microscopic amounts of gold from tons of waste rock. See the discussion of the Morning Star Mine in chapter 8 for more information.

opened or re-opened using cyanide heap-leaching: the Colosseum Mine and the Morning Star Mine were both located inside the boundaries of the Preserve, and Viceroy Gold's Castle Mountain Mine was specifically excluded from the park in the passage of the California Desert Protection Act. Neither of the open pits inside the park were actively mined after the establishment of the Preserve, but these mines have left behind enormous piles of tailings with residual cyanide, as well as the open pits themselves.

Railroads

Railroads transformed the United States throughout the nineteenth century, prompting development of industry throughout the country and providing conduits for development along their lines. The Mojave desert was in the path for one of the earliest potential locations for the transcontinental railroad, the so-called "35th Parallel Route" or southern route explored by Lieutenant A.W. Whipple in 1854. If chosen for the transcontinental railroad, the 35th Parallel Route would have placed the railroad through the South and given an economic boost to the slave-owning states of pre-Civil War America. Ultimately, the decision of which of three routes to choose for a railroad to the Pacific was shelved because of sectional politics, but within half a century the eastern Mojave desert was crossed by two transcontinental railroads as well as a regional line.

Desert geography and competition between railroad companies dictated placement of the first railroad south of the cross-desert Mojave Road. In most parts of the United States, railroads generally followed existing routes of travel, since they were usually the paths of least geographical resistance, and A.W. Whipple followed the Mojave Road in his 1854 explorations. In the desert, the steepness of the terrain was of less concern to early travelers than the availability of water. As a consequence, the Mojave Road, like the Indian trails it overlaid, traveled through mountain ranges rather than around them. This feature made the track of the Mojave Road unsuitable for railroad use and created another pattern of transportation across the eastern desert. A more moderately graded route was located in 1868 by General William J.

Palmer, working for the Union Pacific Railway, Eastern Division.⁴⁰ That railroad was never built, but the Southern Pacific constructed a line through the desert in 1882-83, from Mojave to Needles, largely along Palmer's route. This road was built to forestall competition from the Atlantic and Pacific Railroad (A&P), which was controlled by the Atchison, Topeka, and Santa Fe Railway, more casually known as the Santa Fe. The A&P reached the eastern bank of the Colorado River in May 1883, and the lines were connected three months later, but the Southern Pacific's control of the track through the Mojave precluded its usefulness to the A&P. In 1884, after the Santa Fe threatened to build a line parallel to the Southern Pacific's route in order to allow traffic to pass, the latter railroad sold its desert trackage to the A&P. Although the Santa Fe held control of the A&P since before its construction through the Mojave, the A&P name was used along the line until 1897. Today the line, run by the Burlington Northern and Santa Fe Railway, forms much of the park's southern boundary.⁴¹

In addition to the trans-desert route of the Santa Fe, entrepreneurs constructed shorter railroads to directly service settlements in the eastern Mojave. In 1893, the Nevada Southern Railway was constructed north from Goffs to Manvel, later known as Barnwell, to tap into the mining districts of Southeastern California and Southern Nevada. It promptly went bankrupt, and was reorganized in 1895 as the California Eastern Railway. Six years later, the line was extended into the Ivanpah Valley, and in 1902 was taken over by the Santa Fe Railway. Four years later, the Barnwell and Searchlight Railway was built from Barnwell to the mines at

⁴⁰ NPS Historian Gordon Chappell provided excellent clarification of this issue: "Actually, the U.P.Ry.E.D. had nothing to do with the Union Pacific Railroad, then being built from Omaha to Promontory Summit. The U.P.Ry.E.D. had been so-named by promoters deliberately to confuse investors into thinking it was somehow connected with the well-publicized Union Pacific Railroad, when in fact there was no connection at all except a misleading name. The U.P.Ry.E.D. did actually build track across Kansas and Colorado to Denver, but never continued on to New Mexico, Arizona, and southern California. ... Before it reached Denver, it had changed its name to the Kansas Pacific Railroad." Gordon Chappell memorandum to David Moore, July 31, 2002, 1, copy in possession of author.

⁴¹ David F. Myrick, *Railroads of Nevada and Eastern California: Volume II, the Southern Roads* (reprint, Reno: University of Nevada Press, 1992), 762-793; Chappell memorandum to Moore, July 31, 2002, 1-2.

Searchlight, Nevada. After 1918, the Santa Fe abandoned part of its line in the Ivanpah Valley and only ran trains past Barnwell as demand warranted. Several substantial washouts, combined with the unprofitability of the lines, caused the Santa Fe to abandon all of its lines north of Goffs in 1923.⁴² Lanfair/Ivanpah Road parallels the former Nevada Southern Railway grade as it proceeds northward from Goffs, then runs directly upon it for part of the distance through the New York Mountains. Sometimes the railroad grade can be seen from Ivanpah/Lanfair Road, washed out in several places. The grade of the line to Searchlight composes much of the road that leads out of the park to the east, toward the Walking Box Ranch.

A second transcontinental railroad crossed the eastern Mojave shortly after the beginning of the twentieth century, and runs through the middle of Mojave National Preserve today. In 1905, Senator William A. Clark of Montana, a mining magnate, built the San Pedro, Los Angeles & Salt Lake Railroad from Salt Lake City southward across Utah, through southern Nevada, and across the Mojave desert to its Pacific Ocean terminus outside of Los Angeles. The Union Pacific Railroad (UP) owned half of Clark's line, an agreement reached in settlement of a building race between the two to complete the original road. In 1921, the Union Pacific took full control of the line, and it built the Kelso Depot in 1924. Clark's railroad was responsible for many of the townsites in the heart of the Preserve, including Kelso, Cima, and Nipton. The UP line met the Santa Fe branch at Leastalk, later known as South Ivanpah and simply Ivanpah. The railroad, though not as busy as the Burlington Northern Santa Fe route to the south, remains today a major transcontinental route.⁴³

The Tonopah & Tidewater Railroad, known colloquially as the "T&T," was built by Francis Marion "Borax" Smith in 1906-1907 to tap his borax mines near Death Valley and the silver and gold mines of central Nevada. The line never did reach the coast or Tonopah, stopping just short of Beatty, Nevada, but served as the "neighborhood railroad" for much of the

⁴² King & Casebier, Part 2, 307-310, Myrick, 841-848.

⁴³ Mark W. Hemphill, *Union Pacific Salt Lake Route* (Erin, Ont.: Boston Mills Press, 1995); John R. Signor, *The Los Angeles & Salt Lake Railroad: Union Pacific's Historic Salt Lake Route* (San Marino, CA: Golden West Books, 1988); Stanley W. Paher, *Las Vegas: As It Began-As It Grew* (Las Vegas: Nevada Publications, 1971), 65-80.

desert, and passed along the western boundary of the Preserve.⁴⁴ The line was consistently unprofitable, and after ceasing operation in 1940, the rails were taken up for scrap metal during World War II. The Tonopah & Tidewater crossed the Union Pacific at Crucero, at the extreme western tip of the Preserve; the railroad berm is still in place in some areas, but the park boundary is just to the east, excluding that resource from the park, except where it crosses the northwest portion of Soda Lake between Soda Station and Baker. Soda Lake was a siding on the Tonopah & Tidewater prior to its development as Zzyzx.⁴⁵

Railroads provided people with a means to live in the desert. Most of the human activity in historic times in the eastern Mojave was related to the railroad, either as a means of transportation of Mojave goods to distant markets, as a means of bringing distant goods to Mojave customers, or as a source of local employment, working for the railroads themselves. Most of the existing communities near or inside the Preserve are legacies of the railroad. Goffs, Fenner, Essex, Needles, and Barstow were all started by the Atlantic & Pacific, later the Santa Fe, while Las Vegas, Nipton, Cima, and Kelso were founded by the Union Pacific. Of nearby communities, only Baker, which was merely a siding on the Tonopah & Tidewater, grew to importance solely during the later highway era. The more than century-long importance of railroading in the development of the east Mojave was reflected in the California Desert Protection Act's explicit reference to the "railroading history of the Old West."⁴⁶

⁴⁴ It should be noted that the Tonopah & Tidewater Railroad connected with the Bullfrog Goldfield Railroad just south of Beatty, Nevada, and the latter line itself connected with the Tonopah & Goldfield Railroad in Goldfield, Nevada. Thus it was possible for T&T traffic to reach Tonopah, though not over T&T rails. Chappell memo to Moore, July 31, 2002, 2.

⁴⁵ Delmer G. Ross, "Borax Smith and the Tonopah & Tidewater Railroad," in Casebier et al., *East Mojave Heritage Trail: Ivanpah to Rocky Ridge*, 133-149; Dennis Casebier and the Friends of the Mojave Road, *Mojave Road Guide*, Tales of the Mojave Road #11 (Norco, CA: Tales of the Mojave Road Publishing Co., 1986), 182-183; National Geographic Maps/Trails Illustrated, *Mojave National Preserve*, California (Evergreen, CO: Trails Illustrated, 1999), South Side.

⁴⁶ California Desert Protection Act of 1994, section 2 b.1.C.

Homesteading

Much of the land in private hands throughout the West was originally owned by the federal government, and was distributed to private owners through one of several mechanisms designed to promote the development of an American yeomanry. The most famous of federal land laws was the Homestead Act, which gave homesteaders the right to stake a claim to a portion of the federal domain that could be theirs for several years of hard work plus a small filing fee. Though the Mojave desert was not nearly as suitable for homesteading as more temperate locations, a series of wet years beginning after the turn of the twentieth century convinced hundreds of homesteader families to move to the area. Though more than half of all homesteaders failed to gain title to the lands they claimed, many others met at least a degree of short-term success. When the Mojave National Preserve was created in late 1994, more than 85,000 acres (exclusive of the Catellus railroad grant lands) within the Preserve remained in private hands. Most of that, some 70,000 acres, was in Lanfair Valley, largely a relic of less than two decades of homesteading activity.⁴⁷

Most of the eastern Mojave was opened to homesteading in 1910. That year, inspired by the gospel of dryfarming techniques, and sensitive to the potential increase in value of property with good access to transportation, Ernest Lanfair, a merchant from Searchlight, claimed a portion of the valley that would later bear his name. His homestead and several others became the heart of a community along the railroad, also named for him. Migration to the area rose sharply in 1912 as word spread of Lanfair's bumper crops and free land. Settlers, referred to derisively by cattlemen as "nesters," established a post office, a general store, and a school. Farther north, a settlement at Ledge had similar amenities. A 1914 Fourth of July community barbecue, hosted by Lanfair, counted some 400 participants. Future residents would rent a boxcar from the Santa Fe Railway, known as an "immigrant car," load all of their possessions, and then meet the car several days later on a siding in Lanfair Valley. Newly arrived migrants staked and recorded their claims, and worked to clear and plant a portion of the land to meet

⁴⁷ National Park Service, Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan* (Washington, DC: GPO, July 2000), 92.

government requirements. Later homesteaders often bought the improvements and claims of former residents who moved before receiving title to the land. That way, the process of gaining title would begin anew, but at least the new arrivals did not have to worry about construction of a place to live.⁴⁸

Nearby, a group of African-Americans attempted to start a homesteading colony for blacks, called Dunbar. Success would “bring freedom to the colored race,” in the words of one local newspaper. An attempt to establish an orphanage for black children met with only limited success, and closed within a year. Dunbar had its own post office, but as it was located only 200 yards from the Lanfair facility, the two were merged in 1914. Black homesteaders were not only concentrated at Dunbar, but were scattered throughout the area. One historian emphasized that “black families were among the most persistent and successful of Lanfair Valley homesteaders,” citing as proof the seventeen families that carried the process through to receive a patent on their land. Former residents of the area remember a state of racial harmony, with integrated schools, but white settlers excluded blacks from many social functions. In Lanfair Valley, blacks and whites could plow together, but they could not play together.⁴⁹

The homesteaders experienced constant conflict with the Rock Springs Land & Cattle Company. The company considered Lanfair Valley to be some of the best part of its range, and resented the “intrusion” of settlement. The company denied water to the settlers, forcing them to use the few public springs or dig expensive wells. Cattle trampled carefully nurtured crops, sometimes allegedly after the cowboys cut the nesters’ fences. In return, the farmers would occasionally help themselves to beef. The cattle company brought in hired thugs, and rumors swirled claiming some homesteaders’ cabins burned to ashes under mysterious circumstances.

The Rock Springs Land & Cattle Company was a formidable opponent, but the arid environment proved the undoing of the homesteaders. The rush began during years of unusually heavy rainfall, enabling the success of the experiment. Even during the wet years, farming in

⁴⁸ Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 153; Ausmus, 121-132.

⁴⁹ Dennis G. Casebier, “Lanfair Valley: A Black Homesteading Experience,” [article online] accessed February 20, 2002, <http://www.nps.gov/moja/mojahtdu.htm>.

Lanfair Valley was a dicey economic proposition, and many homesteading families supplemented their farming incomes with wage work in local mines, in Needles or other railroad communities, and on local ranches. Conditions soon worsened, and the homesteaders found that there simply was not enough moisture to grow crops without irrigation. This fact, combined with the crash in agricultural prices after the resolution of World War I, caused many of the homesteaders to leave. When the Santa Fe abandoned its railroad line through the area in 1923, many left, but others waited a little longer, to achieve ownership of their land so that they could sell it and have something to show for their work. The Rock Springs Company and the OX Cattle outfit purchased many of these homesteads. A few homesteaders stayed into the 1930s, but the farming experiment in the Mojave was essentially over.⁵⁰

The homesteading experience failed largely because of environmental and economic factors, but it left a legacy of land in private ownership inside park boundaries. Additionally, evidence of the activities of the homesteaders can still be seen. Required by law to clear and plant a certain portion of their land, the erstwhile farmers pulled up Joshua trees and creosote and turned over the earth. The large vegetation has not grown back, and the square, open fields are conspicuous in the midst of the dense Lanfair Valley Joshua tree forest.

Modern Roads and Rights of Way

Roads and rights of way cross much of the land of the Mojave National Preserve, evidence of the desert's peripheral role in the development of the modern American transportation infrastructure. Highways, pipelines, and high-voltage power wires alike were designed and intended primarily to transport goods and information *through* the desert, rather than to points within the area, which enhanced urban development on both sides of the Preserve while leaving the present-day park open to extractive, resource-based activity. Much of the early recorded history of the Mojave Desert is associated with the network of trans-desert trails used by the Mohave and other Native Americans, which later became formalized by the U.S. Army as

⁵⁰ Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 149-159; Livingston, section 8, pages 7-8.

a wagon road. Railroads, both local and transcontinental, left an important transportation legacy in the eastern Mojave as well. The most important modern roads, Interstates 15 and 40, form much of the boundaries of the park, and trace their roots to the early decades of the twentieth century. Telephone lines, power transmission lines, and pipelines for petroleum and natural gas all snake across the eastern Mojave, as emphasis of the desert's traditional role as a “nowhere” between “somewheres.”

Present-day Interstate 40 roughly follows the route of U.S. Highway 66, John Steinbeck’s famous “mother road.”⁵¹ The route developed initially as cross-desert motorists drove as close as possible to the Santa Fe Railway tracks, because the presence of settlements along the line made it easier to obtain supplies and help if necessary. The alignment became known as the National Old Trails Road, as it was progressively graded and developed. The Automobile Club of Southern California placed signs along its route from Los Angeles to Kansas City in 1914 and produced maps of the road to promote its use. The route was designated U.S. Highway 66 in 1926, and paving through the desert was completed by state agencies, assisted by federal funds, by 1931. The road was realigned several times; the initial route through Fenner and Goffs was bypassed in 1931 by a shorter route with a steeper grade.⁵² The federal government passed legislation in 1956 that called for the construction of a system of limited access, high speed, multiple lane interstate highways. Construction of Interstate 40 came late in the history of the highway system, beginning in the late 1960s and completed through the desert in 1973. I-40 did not exactly parallel U.S. 66 for much of its length in the Mojave, and the older highway retained its designation until 1985. Since then, it has been known as the National Trails Highway, and sees moderate use as an access road. Nostalgia for Route 66 has increased as the convenience and speed of the interstates has become a fixed part of American culture, and desert towns near

⁵¹ John Steinbeck, *The Grapes of Wrath* (New York, Viking, 1939; reprint, Bantam Books, 1972), 128.

⁵² Robert Charles Bard, *Settlement Pattern of the Eastern Mojave Desert* (Ann Arbor, MI: UMI, 1972), 88-91; Casebier et al., *East Mojave Heritage Trail: Rocky Ridge to Fenner*, 147-153, 157-160.



Illustration 5 - Former U.S. Highway 66 passes through Essex, California, just south of Mojave National Preserve. (Photo by Eric Nystrom, 2001.)

the Preserve like Needles, Goffs, Essex, Amboy, and Barstow count Route 66-related tourism as a significant economic strategy.⁵³

Early roads from Los Angeles to Las Vegas did not follow the Union Pacific through the desert because of the hazards of heavy sand and unpredictable water levels in the Afton Canyon area. Instead, the road, graded by the state in 1922, skipped to the north, roughly following the Old Spanish Trail, a wagon road contemporary of the Mojave Road. In 1925, the county realigned the route through Baker. Paved in 1932, the name of the road was changed; originally known as the Arrowhead Trail, the highway was designated U.S. 91. Traffic to and from Las

⁵³ Casebier et al., *East Mojave Heritage Trail: Rocky Ridge to Fenner*, 156; Bard, 117-118. At one time, engineers planned to use 22 nuclear bombs to blast a corridor for the highway and the railroad through the Bristol Mountains, but a tight time schedule and the passage of the Limited Test Ban Treaty scuttled the idea. Jim Drago, “Amazing But True: Department Engineers Considered the ‘Nuclear Option’ to Clear the Way for Route 66’s Successor,” in Casebier et al., *East Mojave Heritage Trail: Rocky Ridge to Fenner*, 229-232.

Vegas was substantial after World War II, because of the development of Las Vegas as a resort destination. Constructed very close to the alignment of U.S. 91, Interstate 15 was finished through the area by 1964. Almost all of the small service stations supported by U.S. 91 were destroyed by I-15; those that exist today were built after the freeway was completed through the area.⁵⁴

Just as the Mojave is home to roads and railroads that transport goods and people across the desert, the Preserve also has extensive rights of way for other means of transportation - electric utility lines, pipelines for oil and gas, and communication lines. Reportedly, the first transcontinental telephone line, constructed in 1915, once crossed the area that is now the Preserve. In 1964, at the height of the Cold War, AT&T constructed a transcontinental telephone line entirely underground. This cable was designed to be immune to a nuclear attack. The cable itself was buried at least 4 feet deep, and repeating equipment, located every four miles, was housed in a deep concrete vault below a tin shack. These little sheds, located along the access road, were a readily identifiable feature in the desert for many years. The underlying cable was upgraded in the early 1980s to newer technology.⁵⁵

Many major electric transmission lines cross the Preserve, and several more are located just outside park boundaries. The first transmission lines to Hoover Dam, designed to bring electricity to the construction site, pass along the northern boundary of the Clark Mountain area, along with several other power lines and buried fiber optic cables. Two 220 kV lines from Hoover Dam, plus a 500 kV line from the Eldorado power plant in Nevada, cross the Ivanpah Valley in the middle of the Preserve. Southern California Edison began construction on the Hoover Dam line in 1936, and helped by a construction contractor with a portable camp for workers, finished the job in 1939. A second line to the dam was completed in 1942 along the same route. The towers included anti-nesting guards to keep birds away. The line to the

⁵⁴ Eugene Moehring, *Resort City in the Sunbelt: Las Vegas, 1930-1970* (Reno: University of Nevada Press, 1989), 10-12, 246-247; Bard, 86, 88, 126-132.

⁵⁵ Mojave National Preserve, *Revised Draft General Management Plan*, 238-239; Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 127.



Illustration 6 - High-tension power wires and associated infrastructure mark one of Mojave National Preserve's most important utility corridors. (Photo by Eric Nystrom, 2002.)

Eldorado plant was completed in 1971. A similar 500 kV line, originating at Southern California Edison's Mohave plant near Laughlin and known as the Mohave-Lugo line, crosses the southern portion of the Preserve.⁵⁶

Petroleum pipelines also traverse the Preserve. Southern California Gas Company constructed a 34-inch high-pressure pipeline in 1964, to carry natural gas from its sources in Oklahoma and Texas to Los Angeles. The pipeline is four to six feet underground, and is co-located west of Essex Road with Southern California Edison's Mohave-Lugo electric line. Just inside the northern boundary of the Preserve, from the western boundary near Soda Springs to

⁵⁶ Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 307, 109; Casebier et al., *East Mojave Heritage Trail: Ivanpah to Rocky Ridge*, 155-160; Casebier et al., *East Mojave Heritage Trail: Rocky Ridge to Fenner*, 39-41.

the Halloran Springs area, CALNEV Pipe Line Company maintains two high-pressure pipelines that carry ninety-nine percent of all petroleum products to Las Vegas. Use of the smaller, eight-inch line began in 1961. As its 14-inch replacement entered service in 1973, the older line was shut down, but reactivated ten years later due to high demand. Almost three million gallons of petroleum products move through the lines each day. The twin petroleum pipelines, buried three feet deep, contain electronically controlled shutoff valves every fifteen miles, which take three minutes to close.⁵⁷

The development of nationwide transportation infrastructure since the construction of the railroads left a legacy in the eastern Mojave. Routes for automobiles and trucks, first in the guise of U.S. highways and later as high-speed interstate freeways, played an important role in the development of the desert and surrounding urban areas and provide important routes of transcontinental travel. Massive electric transmission lines from Hoover Dam and modern coal-fired power plants were built across the Mojave in the late 1930s and early 1940s and again in the early 1970s. Beginning in the early 1960s, two separate pipelines began to carry fossil fuels across the desert, to Las Vegas and to Los Angeles, and a Cold War-era underground communication cable also commenced service. All of these highlighted that the Mojave desert was a place to transport things through, not *to*, and reinforced the status of the desert as an unwanted place.

Modern Military Training

The Mojave Desert, a “wasteland” with easy railroad access, seemed to General George S. Patton to be an excellent place to train his troops during World War II. In early 1942, Patton established the Desert Training Center, and stationed troops throughout the Mojave. Much of

⁵⁷ Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 76; Casebier et al., *East Mojave Heritage Trail: Ivanpah to Rocky Ridge*, 226-228; “Figure 9: Major Rights-of-Way,” Mojave National Preserve, *Revised Draft General Management Plan*. The shutoff times are frightening: Given that the pipelines move 2,940,000 gallons of petroleum a day, this means that 6,125 gallons would, in theory, be pumped out of the line before the gate valves were closed, even if a break in the line were discovered immediately. Casebier reports that the line has only been broken twice, both by bulldozers.

the heaviest activity took place to the south of the current Mojave National Preserve boundaries, but some of these wartime camps and much of the maneuver areas were inside the present Preserve. A major division-size camp, Camp Clipper, was located north of Essex, with its northern boundary located inside the Preserve, north of I-40. A support division, including an ammunition dump, several large warehouses, and a military hospital, were located at Goffs, along with an emergency airfield a mile north of the hamlet. Later, the training grounds were expanded and renamed the California Arizona Maneuver Area, and remained in use until mid-1944. At least one million soldiers spent time in the area. Tanks and other military vehicles roamed throughout the desert, conducting exercises in the valleys of the Preserve and surrounding areas.⁵⁸

During World War II, many places in the greater Mojave desert received permanent designation as military training areas, but lack of such a status did not preclude the military from again using the eastern Mojave for practice. In May 1964, the Army staged a training exercise in the public lands west of Needles with 89,000 troops. Soldiers practiced amphibious landings on the banks of the Colorado River, troops constructed machine-gun emplacements at major crossroads, and heavy weaponry rolled across the sweeping valleys. The operation, known as “Desert Strike,” caused significant impact to desert plants and animals. At least some locals attempted to halt the operation, but were unable to get support from the BLM or conservation groups.⁵⁹ One author pointed out that the maneuver “laid environmental waste to sizable swaths of the East Mojave.”⁶⁰ Fortunately for the fragile lands of the east Mojave, Operation Desert Strike was the last major military use of the area now encompassed by the Preserve.

The army’s training exercises left permanent scars on the desert. Tank tracks remain visible in many places inside and outside the Preserve. Rock alignments laying out huge tent

⁵⁸ Ev Hayes, “Camp Clipper and the Desert Training Center,” in Dennis Casebier and the Friends of the Mojave Road, *Guide to the East Mojave Heritage Trail: Fenner to Needles* (Essex, CA: Tales of the Mojave Road Publishing Co., 1990), 201-223; Darlington, 152-155; Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 91-100.

⁵⁹ Ausmus, 89-91.

⁶⁰ Darlington, 152.

camps dot the desert, especially in the southeast corner of the Preserve, and military debris still litters the desert floor in some places. Military use compacted the soil and changed the natural ecology of the desert.⁶¹

Military use of the Mojave for training purposes had civilian ramifications as well. The military systematically mapped the entire Mojave desert in detail for the first time, utilizing aerial photography and traditional land-based methods to create maps for their training operations. After the war, many of the Army maps were sold to the public, and the U.S. Geological Survey utilized Army Map Service data to produce a series of 15 minute quads of the desert in the late 1940s and early 1950s.⁶² The experiences of soldiers at the wartime desert camps translated to increased recreational use of the desert after the war. War surplus jeeps and camping gear enabled former soldiers and their friends to explore the desert in four-wheel drive, as they had done during their training, with new maps of the Mojave to guide their travels.⁶³ One U.S. Army photo, dated 1942, shows a soldier in full battle gear steering a huge military Harley-Davidson motorcycle down a Mojave sand dune - a stunning prelude of recreation to come.⁶⁴

Recreation

Recreational use of the desert began before World War II, but accelerated tremendously after that conflict concluded. The rise of recreation by off-highway vehicles (OHV) eventually prompted increased management of the entire desert by the BLM, and will be addressed in the following chapter. In addition to OHV users, others made attempts to encourage recreation in the eastern Mojave.

⁶¹ Darlington, 76-77; D.V. Prose, Susan K. Metzger, and H.G. Wilshire, "Effects of Substrate Disturbance on Secondary Plant Succession; Mojave Desert, California," *Journal of Applied Ecology* 24 (April 1987): 305-315; Douglas V. Prose and Howard G. Wilshire, "The Lasting Effects of Tank Maneuvers on Desert Soils and Intershrub Flora," U.S. Geological Survey Open File Report OF00-512, 2000, 1-4.

⁶² See the Map Collection of the Mojave Desert Heritage & Cultural Association, Goffs, California for examples. The author assisted cataloging and processing this collection.

⁶³ Darlington, 234-235.

⁶⁴ Hayes in Casebier et al., *East Mojave Heritage Trail: Fenner to Needles*, 214.



Illustration 7 - Jack and Ida Mitchell lived near the caverns in this house which is now a visitor's center for Providence Mountains State Recreation Area. The state park is located inside Mojave National Preserve. (Photo by Eric Nystrom, 2001.)

Jack Mitchell, a Los Angeles businessman who lost almost everything in the 1929 stock market crash, initiated an early attempt at recreational tourism in the present-day Preserve. Mitchell became interested in three magnificent limestone caverns after a local rancher, Mark Pettit, showed him the caves. By 1932, Mitchell had explored the caves, offered tours, and set up signs along Route 66 to direct visitors to the site. He continued to guide visitors for the next two decades. As Mitchell grew closer to retirement age in the early 1950s, he began deliberations with California's state park system to take over operation of the caves as a state park. Mitchell was killed in an accident before negotiations could be finalized, and the California state park system added Mitchell's Caverns to its holdings in 1956. The state promoted the tourism and development of the caverns and the surrounding Providence

Mountains State Recreation Area, and dug a connection between the two main caves in Mitchell's Caverns to produce a single-loop tour experience. The caves and the state park continue to draw thousands of visitors every year to the area, and are the oldest formal tourism-related activity in the Mojave National Preserve. Originally, two more state parks were planned for Cima Dome and the Cinder Cones, but these were never built.⁶⁵

The California Department of Fish and Game (CDF&G) long encouraged recreational hunting in the eastern Mojave desert, as in the rest of the state. During the 1940s, CDF&G stocked non-native mule deer in what later became the Preserve. Deer are native to some parts of the desert, but the eastern Mojave, by 1940, was a landscape constructed by ranchers for production of beef. Hunting was seen by the ranchers as an undesirable intrusion of animals that would compete with their cattle and people who might damage their property. One local angrily categorized the action as “dumping them on land where ranchers were paying for the forage rights and where, with hunting, they have been a source of trouble ever since.” Winnie Southcott, wife of the owner of the Gold Valley Ranch, died after she was attacked in her front yard by a large buck who apparently had no fear of humans.⁶⁶ By the mid-1980s, hunters harvested an average of 25 deer each year from the area of the Preserve, about a quarter of the total for San Bernardino County. California Department of Fish and Game also introduced chukar, an upland game bird popular with hunters, in the mid-twentieth century. Hunting of bighorn sheep had long been prohibited in the desert, but beginning in the fall of 1987, limited hunting was allowed to resume by CDF&G.⁶⁷ From the 1940s to the beginning of the twenty-first century, the state of California actively attempted to increase recreation opportunities in the

⁶⁵ Papierski, 92-93, 147-148; Bob Ausmus, “Jack Mitchell of Mitchell's Caverns,” in Casebier et al., *East Mojave Heritage Trail: Rocky Ridge to Fenner*, 283-291. Also see Mitchell's frequently-embellished first-hand account, Jack Mitchell, *Caveman* (Torrance, CA: Lewellen Press, 1964); Peter Burk, *The East Mojave: A Critical History, 1776-1980* (Barstow, CA: Peter Burk: 1988), 20.

⁶⁶ Ausmus, 140.

⁶⁷ U.S. Bureau of Land Management, *East Mojave National Scenic Area Final Management Plan* (Needles, CA: Department of Interior, Bureau of Land Management, Needles Resource Area, 1988), 111, 122.



Illustration 8 - Springer's pool enclosure at Zzyzx overlooks Soda Lake. (Photo by Eric Nystrom, 2001.)

eastern Mojave by locally implementing statewide programs designed to promote and sustain hunting.

While CDF&G attempted to make the desert amenable to hunters and Jack Mitchell tried to profit by showcasing its wondrous caves, a controversial preacher promoted an alternative vision of recreation in the Mojave. In September 1944, “Dr.” Curtis Howe Springer, a radio evangelist and alternative-medicine salesman, staked mining claims at the site of Soda Springs, which he gradually developed into his famous *Zzyzx Mineral Springs and Health Resort*. Springer was a curious historical character who can be painted as a swindling quack or a misunderstood visionary. Springer constructed most of the buildings at *Zzyzx* today before 1955, utilizing men from the slums of Los Angeles for labor. Treatment at *Zzyzx* included good food and plenty of rest, along with an alcohol-free environment, which certainly helped some visitors. Lodging and meals were provided free of charge, though donations were encouraged.

Over time, *Zzyzx* proved very popular. The post office in Baker was upgraded to first-class status, largely because of Springer’s mail volume, and motels there often lodged prospective visitors waiting for their turn at *Zzyzx*. In the late 1960s and early 1970s, after a series of articles in the *Los Angeles Times* raised the public's awareness of the seemingly

illegitimate side of the Zzyzx business, several agencies, including the BLM and the Food and Drug Administration, pursued charges against Springer for allegedly false advertising, misleading labels, and misusing mining claims. BLM rangers bodily evicted Springer and his wife in April 1974 on the grounds that Springer was trespassing on public lands because he was living on his mining claims rather than extracting minerals from them. The BLM showed the Springers little sympathy, threatening them with handcuffs and giving them thirty-six hours to gather their possessions and vacate the property. Two years later, after some BLM consternation about what to do with Zzyzx, the California State University Desert Studies Consortium was granted a renewable lease to run the property as a research and education facility.⁶⁸

After World War II, recreational use of the desert grew to substantial importance. From Jack Mitchell's attempts to make a living by giving tours of limestone caves to Curtis Springer's decades-long development and promotion of Zzyzx Mineral Springs, private interests used the eastern Mojave for economic gain through recreation and tourism. The State of California also sought to increase recreational opportunities by introducing non-native animals to the area as a means of increasing hunting. Recreation by off-highway vehicle users became so substantial that it prompted the first major systematic federal management of the desert. Beginning recently and growing rapidly, few could have predicted the speed with which recreation became a major activity on the lands of the east Mojave.

One of the least populated areas in the United States, the eastern Mojave saw relatively little management of any sort for much of its recent history. Euro-American traders chose to avoid the Mohaves when possible, but even after the establishment of a wagon road, military presence was limited to a thin corridor. Miners extracted wealth from the land, subject to only the permissive provisions of the General Mining Law of 1872. Ranchers used federal land as their own, possessing genuine title only to land around water sources. Homesteaders futilely

⁶⁸ Anne Q. Duffield-Stoll, *Zzyzx: History of an Oasis*, California Desert Studies Consortium, Desert Studies Contributed Series #65 (Northridge, CA: Santa Susana Press / University Library, California State University Northridge, 1994), 49-55; Casebier et al., *Mojave Road Guide*, 167-176; Darlington, 100-103.

plowed their personal portion of the public domain, but few were able to patent their holdings and none were subject to more oversight than that provided by hostile local ranchers. Military exercises used the eastern Mojave as a playground, and railroads, interstate freeways, electrical transmission lines, and petroleum pipelines were all constructed across the land. Increased management appeared on the distant horizon with the passage of the Taylor Grazing Act of 1934, which required Mojave ranchers to change their practices and their landscapes to fit the new regulations. Only in the 1960s did the desert face an issue large enough to demand major attention. Recreation in the desert surged in popularity, and forced the federal government to move toward systematic management of the desert for the first time.

Three: BLM MANAGEMENT IN THE EAST MOJAVE

After World War II, control of federal lands in the desert fell to the Bureau of Land Management (BLM), a newly-created agency in the Department of the Interior whose difficult mission of being almost everything to almost everyone was later codified as “multiple use.” The BLM was created in 1946 when the Grazing Service and the General Land Office were combined. This action placed much of southern California and the east Mojave under the ostensible control of the new agency, but in reality the BLM’s presence was light, both because of the nature of the management responsibilities of the new agency and a lack of staff. The BLM’s greatest presence in the area was felt by miners and ranchers, both of whose activities the agency monitored; the former under the auspices of the 1872 General Mining Law, and the latter under the 1934 Taylor Grazing Act. The Bureau was dominated by ranchers and miners, and provided little oversight of their activities. The massive popularity of recreational use of the California desert forced the BLM to expand its management portfolio. After World War II, recreation rose to economic importance in the area. Millions of American soldiers got to know the area during the war because of Patton’s Desert Training Center and California Arizona Maneuver Area, and the growth of population in the Los Angeles area after the conflict created additional pressure to explore the desert. Motorcycle technology, fueled by the disposable income of thrill-seeking baby boomers, advanced rapidly after the war, and the desert became the location of choice for increasing numbers of off-road riders to recreate. At the same time, the American public began to develop an environmental ethic that suggested that consumptive uses of the desert were perhaps not the best ones.

BLM stepped up its management of recreation when Russ Penny, appointed California state BLM director in 1966, instructed his office in Riverside to document the impacts of a motorcycle race that was to be held in the desert on Thanksgiving weekend, 1967. Known as

“Barstow to Vegas” or simply “B to V,” this motorcycle race quickly became one of the major spectacles in American off-road racing. The most unusual feature was the mass start of the race, where hundreds and, in later years, thousands of dirt bikes roared to life at once and sped off toward a distant target in a cloud of choking dust. The Barstow to Vegas race caused considerable damage to desert resources, and Penny's documentation of the event provided the BLM with ammunition to get a \$25,000 grant to study the desert. The resulting 1968 report suggested the development of a comprehensive plan and the formulation of future studies of the area, as well as designation of off-road courses and protected recreation areas. As an agency, BLM was only beginning to become comfortable with recreation management in the late 1960s, and perceived off-road recreation as a use for which the desert was suitable. The BLM formed the Off-Road Vehicle Advisory Council, or ORVAC, to advise the agency on recreation and desert issues. The council developed a report which recommended classifying lands as “open,” “restricted use,” and “non-use,” and suggested that BLM needed law enforcement powers to stop lawbreakers.⁶⁹

BLM's call for expanded regulation was answered in 1972 because a radical change in attitudes toward government intervention in environmental issues prompted the politically-sensitive president to act. A massive oil spill off the coast of Santa Barbara, California in 1969 and other events focused the nation's attention on environmental regulation, and legislation such as the National Environmental Policy Act of 1969 received strong bipartisan support. At a time when a pro-environment stance was a good political move for any politician, Republican or Democrat, President Richard M. Nixon issued Executive Order 11644 in February 1972, which required all federal agencies with land under their control to designate areas as acceptable or unacceptable for off-road vehicle use, so as to protect the natural environment. The BLM set up an Interim Critical Management Program, under the leadership of Wes Chambers and Neil Pfulb, to find and close particularly sensitive areas, and to allow open play in others. After receiving

⁶⁹ Marion Clawson, *The Bureau of Land Management* (New York: Praeger Publishers, 1971), 113-120; Frank Wheat, *California Desert Miracle: The Fight For Desert Parks and Wilderness* (San Diego: Sunbelt Publications, 1999), 2-3, 8-10.

18,000 comments on the draft, a final version was approved in November 1973, which provided guidance for the next seven years.⁷⁰

The Barstow to Vegas motorcycle race grew considerably after its inception in 1967, and BLM employees and other desert users were increasingly concerned that the race was substantially damaging the desert. After the 1973 race, BLM conducted an Environmental Impact Study (EIS) that showed that significant damage had occurred and would continue to occur with future races. The report was published less than a month before the 1974 race, so a federal judge ruled that the event could continue as planned. The BLM monitored the race very closely, and the data that they collected plus the EIS was enough justification to deny a permit for the event in 1975 and thereafter.

FLPMA and the Desert Plan

The Barstow to Vegas motorcycle race and subsequent concern over OHV damage focused the attention of environmentalists and lawmakers on the California desert. Conservation measures in the California desert were hamstrung because BLM had no enforcement powers and no legislative mandate to protect the environment, unlike its specifically mandated grazing and mining responsibilities. In 1970, Bob Jennings, a member of Penny's desert planning staff who cared for the desert and saw first hand the resource damage that BLM was unable to prevent, left the Bureau to work as an aide for U.S. Representative Bob Mathias, a California Republican whose district included some areas that would eventually be added to Death Valley National Park. Jennings emphasized the desert conservation issue to his boss, and working together with BLM, wrote a bill to give the BLM enforcement and planning powers in the desert. Mathias introduced the bill in Congress that year, and soon other members of the California delegation, including Senator Alan Cranston, were also pushing similar bills. The desert bills were reintroduced in 1971, and again in 1973. Senator Cranston got a hearing for his bill in 1974, where the subcommittee suggested that it be integrated into an omnibus BLM bill, the Federal

⁷⁰ Hal K. Rothman, *Saving the Planet: The American Response to the Environment in the Twentieth Century* (Chicago: Ivan R. Dee, 2000), 138-139; Wheat, 17-21.

Land Policy and Management Act (FLPMA), making its way through the Senate. FLPMA did not pass that year, but Cranston's desert-specific portions remained in subsequent reintroductions, and were enacted into law when FLPMA was passed in October 1976. This act, one of the most important pieces of land management legislation ever passed, provided the BLM with an organic act and placed it on equal footing with the NPS and the Department of Agriculture's Forest Service. On paper, the act prioritized recreation and preservation as of equal importance as BLM's traditional mining and grazing functions, even though this equality was not always reflected in the field.⁷¹

FLPMA had several important impacts in the eastern Mojave. It required the BLM to "manage, use, develop, and protect" its lands, a contradictory mission that suggested a tenuous balance of interests but prevented BLM from adequately satisfying any user group completely. It enabled the BLM to designate Areas of Critical Environmental Concern, of which six were eventually created in the eastern Mojave, and required that the agency check its holdings for lands suitable for potential inclusion in the wilderness system. FLPMA section 601 specifically created the California Desert Conservation Area, consisting of some twenty-five million acres of private and public land including all BLM lands in southern California, and required that a management plan be developed by 1980. This document became known as the "Desert Plan."⁷²

Developing the Desert Plan took several years and a tremendous amount of public input. The scope of the project alone, developing a management plan for tens of millions of acres, was daunting. Little information existed about many of the resources in question, so the BLM created a tremendous program of natural and cultural research on desert resources. Many large public meetings were held by the agency to ensure public input; fifteen hearings were held between 1977 and 1979, before publication of the first draft of the plan. BLM received more than 40,000 individual comments at that time. Some of the loudest voices at these meetings came from organized groups that wanted to utilize the desert for OHVs and mining, but others

⁷¹ Dyan Zaslowsky and T.H. Watkins, *These American Lands: Parks, Wilderness, and the Public Lands* (Washington DC: Island Press, 1994), 125-126, 130-132; Wheat, 11-15.

⁷² Bureau of Land Management, *The California Desert Conservation Area Plan* (Riverside, CA: U.S. Department of the Interior, Bureau of Land Management, Desert District, 1980).

urged conservation. In a series of opinion polls, the public substantially supported increased conservation in the desert. FLPMA required BLM to inventory its lands and set aside those that seemed to have wilderness values as Wilderness Study Areas (WSAs). The Wilderness Act of 1964 already initiated WSA evaluation for lands controlled by the U.S. Forest Service and the National Park Service, but the BLM had been left out of the original act. FLPMA required the WSA evaluation process to be completed by 1991, but since the status of WSAs would affect their management, this task also needed to be completed before the final Desert Plan was issued.⁷³

The main mechanism for planning in the Desert Plan was land classifications, a technique commonly used by federal agencies by the time of the development of the management plan for the deserts of Southern California. For federal land in the California Desert Conservation Area, one of four classifications could be used. Class C, “Controlled Use,” was reserved for Wilderness Study Areas and prohibited most vehicle use and all new mineral claims. “Limited Use” or Class L lands were designated as such to “protect sensitive, natural, scenic, ecological, and cultural resources.” On such lands, mining operations were required to have a Plan of Operations with reclamation, power and phone lines were to be routed underground where possible, and land would not be turned over to private ownership. Class M, “Moderate Use,” permitted more kinds of operation, including airstrips, nuclear and fossil fuel powerplants, off-road racing, and small mines without reclamation. “Intensive Use” or Class I lands included large mining operations and OHV play areas. The Desert Plan provided an “Unclassified” category for lands usually located inside towns or surrounded by private lands. The Desert Plan also allowed BLM to establish special reservations to acknowledge special features or uses. Examples of these special categories included the “Area of Critical Environmental Concern,” the “Research Natural Area,” and the “National Natural Landmark.”⁷⁴

⁷³ Elisabeth M. Infield, *Stories of the Land: Rhetoric and Reconciliation in the Mojave National Preserve* (Ann Arbor, MI: UMI, 1997), 94-95; Wheat, 43-46, 67-69.

⁷⁴ Bureau of Land Management, *Draft East Mojave National Scenic Area Management Plan and Environmental Assessment* (Needles, CA: U.S. Department of the Interior, Bureau of Land Management, California Desert District, Needles Resource Area, April 1987), 28-29.

The Desert Plan included an interesting amendment mechanism that gives solid proof to the adage about no good deed going unpunished. “Eminent planner” Harvey Perloff was one of many experts hired by BLM to help the agency put together the Desert Plan. Perloff suggested that an amendment process be included, so that instead of a static, unwieldy document, the Desert Plan could mutate and grow as conditions themselves changed. BLM officials thought this an excellent idea, and the amendment mechanism became an integral part of the Desert Plan. Ultimately, many of the Desert Plan amendments passed by BLM in the Reagan/Watt years served to weaken environmental protections. Environmentalists didn't trust the BLM to maintain adequate levels of protection in the face of administrative hostility, especially after Ronald Reagan's Interior Secretary James Watt decimated the conservation aspects of the bureau, and a more “permanent” legislative (rather than administrative) protection of desert lands became the goal of the conservation lobby.⁷⁵

The East Mojave National Scenic Area and the Genesis of the CDPA

During the creation of the Desert Plan, members of various conservation organizations urged BLM to provide special protection to lands in the eastern Mojave. One group, Citizens for Mojave National Park, was formed by Joyce and Peter Burk as a bicentennial project on July 4, 1976. In fits and starts, the organization pursued its solitary goal of a Mojave National Park. The Citizens for Mojave National Park alone were never numerous nor wealthy enough to make a national impact, but Peter Burk and other members were also actively involved in the Sierra Club and other organizations with enough resources to achieve major change. As a result, the Citizens for Mojave National Park helped to focus some debate on the desirability of increased protection for the eastern Mojave, even though most politicians and conservation leaders believed any park effort should wait until after the Desert Plan was complete. As early as 1976, Burk circulated a rough sketch of a Mojave National Park that closely mirrored the later East Mojave National Scenic Area and the Mojave National Preserve, although the resemblance

⁷⁵ Robert F. Durant, *The Administrative Presidency Revisited: Public Lands, the BLM, and the Reagan Revolution* (Albany, NY: State University of New York Press, 1992), 51-63; Infield, 94.

probably had as much to do with the realities of development in the eastern Mojave as it did with prophetic vision.⁷⁶

Burk's idea of a Mojave National Park may have been deemed premature, but the idea was clearly on the minds of the agency's planners at the time. In 1978 and 1979, BLM Desert Plan staff studied their holdings for potential park lands in the desert, and concluded that "the cultural and natural resource values of the East Mojave Study Area are so diverse and outstanding that the area readily qualifies for national park or national monument status." BLM management sidestepped the insinuation of the report that the agency should relinquish some of its most beautiful California lands to its rival Interior agency.⁷⁷ The Desert Plan, as finalized, was significantly weaker than environmentalists originally hoped, but the election of Ronald Reagan convinced conservationists that the plan was certainly better than nothing.⁷⁸ One of the highlights of the Desert Plan was the recommendation that Interior create a "national scenic area" in the east Mojave, the first designation of its kind. The East Mojave National Scenic Area (EMNSA) was formed by an order of Secretary of the Interior Cecil Andrus in December 1980, just before Reagan took office, and reauthorized by James Watt in early 1981. When Guy R. Martin, Andrus' Assistant Secretary of Interior for Land and Water Resources, signed the proposal, he noted the amorphous nature of the new designation, and added the important proviso that the "concept should be fully and accurately described."⁷⁹

The decision to create a "national scenic area" instead of a national park in the eastern Mojave desert in 1980 was due to a series of factors. The eastern Mojave landscape was clearly among the most park-like of the BLM lands in the California desert, and widespread calls for increased protection could not be ignored. Without a doubt, BLM management desired to retain jurisdiction over the prime lands in the eastern Mojave, and not give up any control to other

⁷⁶ Peter Burk, *The Making of Mojave National Preserve* (Barstow: Citizens for Mojave National Park, 1994), 3-16; Wheat, 50.

⁷⁷ Wheat, 53.

⁷⁸ Wheat, 77-78. As Peter Burk colorfully put it, "In November the Reagan landslide came and environmentalists became depressed." Burk, *The Making of Mojave National Preserve*, 16.

⁷⁹ *East Mojave National Scenic Area Final Management Plan*, Appendix A, "Secretarial Order Establishing the East Mojave National Scenic Area," 143-144.

agencies. Frank Wheat said that BLM “tossed a bone to the conservation community” by forming the EMNSA. Judy Anderson, one of the principal leaders in the later push for increased desert protection, later described the designation as a deal between the BLM and pro-park forces, brokered by the National Parks Conservation Association, which was deeply concerned about putting additional strain on NPS resources. These fears were based on the belief that the California desert was already adequately represented in the national park system by Death Valley and Joshua Tree National Monuments; when combined with concerns that scenic intrusions such as power lines and abandoned mines made the area less than desirable, the EMNSA designation seemed like an appropriate compromise.⁸⁰

Working mostly with traditional users, BLM management created a statement of management philosophy in August 1981 to guide decision-making until a management plan could be developed and implemented. The statement reaffirmed BLM’s commitment to the multiple use of the area, and emphasized that designation of the EMNSA did not add additional levels of regulation; the region would be managed according to the public land laws and the Desert Plan. To ensure “adequate” protection, nearly all of the land within the EMNSA would be classified for limited use under Desert Plan guidelines. Administrative priority would be placed on EMNSA issues within the larger BLM management area. Additionally, the BLM would review all development plans within its jurisdiction for “scenic quality management.”

Several concepts would be echoed by later NPS management. For example, the BLM emphasized that “recreationists” should have a “sense of discovery” when exploring the area. This phrase still describes management philosophy in the Preserve. The philosophy statement also noted that the designation and its consequent management applied only to public lands, not private or state lands located inside the boundaries of the EMNSA. The California Desert Protection Act of 1994 harkened to this concept, though not directly, when it specifically excluded all private land (other than the former railroad lands then owned by the Catellus Corporation) from the Mojave National Preserve until acquisition by the park.

⁸⁰ Wheat, 54; Infield, 96.

Other provisions of the philosophy statement emphasized BLM's multiple use mission. Of six management goals listed in the document, the first was to make the EMNSA a "demonstration showcase for multiple-use management." Another goal expressed the desire to limit development of paved roads, but simultaneously increase the value of the resource by adding "improvements" such as additional water. Recreational use, such as sightseeing and camping, were recognized as important activities. Even with the increased protection of the "scenic area" designation, the eastern Mojave was managed from a perspective that *use* of the land was the highest value, unlike NPS policies that emphasize resource protection and functioning ecosystems above all else.⁸¹

One recreational resource enhancement was provided by a group of volunteers who worked to reopen the "Old Government Road" to modern traffic. In 1962, Dennis Casebier, a physicist by trade and a historian by inclination, first arrived in the eastern Mojave, "fascinated from the beginning" by the old trail and determined to find out more about it. While working in Washington DC, Casebier haunted the National Archives, copying tremendous amounts of historic material about the Mojave. In the early 1970s, Casebier wrote several short histories of aspects of the military presence in the desert, including its role in the development of the Mojave Road. Armed with an engaging slide show, Casebier gave lectures on the history of the trail. BLM officials, including Desert Plan Director Neil Pfulb and Assistant Director Wes Chambers, were very interested in the Mojave Road and its potential for recreational use by hikers, equestrians, and perhaps motorized vehicles. Not yet convinced of the road's suitability for four wheel drive use, Casebier hiked its 130-mile length in eight days during October 1975. Assisted by BLM, Casebier sought publicity in the late 1970s and early 1980s to open the road to greater recreational use. The trace itself was disappearing in some places, and needed traffic to retain a road-like condition. In March 1980, Casebier was asked to lead a caravan of four-wheel drive enthusiasts over the Mojave Road. Using CB radio, he lectured along the way, describing the history of the landscape. In Casebier's words, "it was just like magic!" and the experience

⁸¹ *East Mojave National Scenic Area Final Management Plan*, Appendix B, "Management Philosophy Statement," 145-147.



Illustration 9 - A caravan of four-wheel drive vehicles traveling the Mojave Road pauses for lunch. (Photo by Eric Nystrom, 2001.)

demonstrated that cautious drivers would pose little threat to the resource. Over the next several years, Casebier led more outings and coordinated development of the trail, with BLM's eager consent. In May 1981, Casebier and his associates officially created the Friends of the Mojave Road, to work with BLM as volunteers to promote environmentally friendly recreation along the old wagon road with an emphasis on education. The group agreed that signs would be out of place along the road and resolved to create rock cairns and a mileage-based guidebook as an alternative. As finalized, the trail produced by volunteers ran directly over the wagon road in most places but occasionally utilized detours along parallel trails when the original road was blocked or unusable. The California Association of Four-Wheel Drive Clubs agreed to take responsibility for the small amount of maintenance the road would need, repairing cairns as

necessary and conducting semiregular trash patrols. The Guide to the Mojave Road was published in October 1983, after advance orders of over 600 copies ensured it would be a worthwhile venture.⁸²

The first edition of 1,700 copies sold out, and by the time an updated edition of the guide was issued in 1986, Casebier estimated that over 2,000 people had traveled the trail.⁸³ Once the success of the experiment was clear, the Friends of the Mojave Road, with the approval of BLM managers, developed a more ambitious project, a 660-mile closed loop utilizing existing roads through lands in the eastern Mojave, in part to relieve traffic pressures on the Mojave Road. Initial planning work for the East Mojave Heritage Trail was under way by 1985. As a result of the effort and cost associated with developing the trail and publishing the guidebooks, the Heritage Trail was opened in successive segments. The first of four guidebooks was published in 1987, and the final installment appeared in 1990. Under BLM, four-wheel drive recreation was a use of the East Mojave National Scenic Area that was encouraged.⁸⁴

Despite rhetoric in favor of protection espoused by the EMNSA management statement, it seemed to conservationists that resource protection was a secondary concern. In 1982, BLM promulgated the first cycle of major amendments of the Desert Plan. Several affected the East Mojave National Scenic Area, including proposals to reinstate the Barstow to Vegas motorcycle race, to remove some 300,000 acres from WSA status, to reduce levels of protection on class L lands, and to delete some 140,000 acres in the northern portion of the EMNSA from the unit entirely at the request of Molycorp. The Molycorp land deletion was reduced to 47,520 acres after conservationists protested the move, but many of the other amendments perceived by conservationists as detrimental to the EMNSA were passed. This incident highlighted the fact

⁸² Dennis Casebier, *Reopening the Mojave Road: A Personal Narrative*, Tales of the Mojave Road #8 (Norco, CA: Tales of the Mojave Road Publishing Co., 1983), 7-112; also see Dennis Casebier and the Friends of the Mojave Road, *Guide to the Mojave Road*, Tales of the Mojave Road #9 (Norco, CA: Tales of the Mojave Road Publishing Co., 1983.)

⁸³ Dennis Casebier et al., *Mojave Road Guide*, 9.

⁸⁴ Charles Hillinger, "New Recreation Trail to Make Loop in the Desert," *Los Angeles Times* October 7, 1985; Casebier et al., *East Mojave Heritage Trail: Needles to Ivanpah*, 9-11; Casebier et al., *East Mojave Heritage Trail: Fenner to Needles*, 15-19.

that the malleability of the Desert Plan would not necessarily work only to increase environmental values. Disillusioned conservationists doubted that the Desert Plan could be counted on to prevent ecological damage, since any protections could be taken away with administrative amendments, so environmentalists began to push in earnest for a legislative solution to resource protection.⁸⁵

BLM actions in the EMNSA gave environmentalists reasons to worry. In 1984, MCI Communications proposed to put a 350-foot tall microwave tower on private land atop Marl Mountain. BLM claimed that they had no voice in the matter, because it was private land, but conservation groups pushed the San Bernardino County Board of Supervisors to require an Environmental Impact Report for the project. Stalled by wrangling over environmental issues, MCI decided to locate its tower outside the Scenic Area. The following year, BLM supported selling EMNSA land south of I-15 to facilitate development in Baker. Both developments eventually ended without action, but environmentalists remained concerned that BLM had no interest in maintaining the integrity of EMNSA lands. Later events reinforced this observation, including BLM's permission for LA Cellular and Pacific Bell to build towers in the Scenic Area without public review, and the bureau's decision to reinstate the Barstow to Vegas motorcycle ride. Mining in the area expanded in the 1980s, driven by a steady rise in the price of gold and the development of cyanide heap-leach methods capable of working low-level ore at a profit. The Colosseum Mine, an open pit gold operation located in the Clark Mountain Area of Critical Environmental Concern, began modern production in 1985. Environmentalists charged that permission of massive open pit mines in the Scenic Area itself was wrong, but to do so for a mine in an ACEC, argued conservationists, showed beyond doubt that the BLM's designation was meaningless.⁸⁶

BLM's apparent disregard for environmental protection gradually eroded their support among environmentalists, and activists pushed for legislative reform. Southern California Sierra

⁸⁵ Burk, *Making Mojave National Preserve*, 17, 19; Peter Burk, *East Mojave National Scenic Area: 1981-1994* (Barstow: Peter Burk, 1994), 7; Wheat, 90-100.

⁸⁶ Burk, *Making of Mojave National Preserve*, 21, 23-24; Burk, *East Mojave National Scenic Area*, 8, 12.

Club activists took the lead on pushing for legislative protections in the desert. Judy Anderson, a high school mathematics teacher in greater Los Angeles, gradually became the de facto leader and was assisted by an extensive roster of conservationists. Anderson began producing maps of proposed wilderness areas and expanded park units in 1981; these maps, with modifications, were the basis of the maps included with the final CDPA. Pro-CDPA forces agreed that patience was crucial, and hypothesized that a Desert Protection Act had the best chance of passage if a broad coalition of pro-environmental groups were aligned behind a single proposal. At first, the national leadership of conservation organizations doubted the wisdom of including a Mojave National Park in the proposal, but effective advocacy by Peter Burk and others ensured that it would be included in the final plan. In late 1984 and early 1985, a number of conservation groups led by the Sierra Club, the Wilderness Society, and the California Wilderness Coalition, formed the California Desert Protection League as an umbrella organization, and elected Judy Anderson as chair. They kept in close contact with Kathy Files (later known as Kathy Lacey), Senator Alan Cranston's environmental aide, and met with the lawmaker himself in January 1985. The league prepared maps of all of the proposed additions and wilderness areas, along with descriptions and photographs of the areas. With a solid foundation of material for support, Senator Cranston introduced S.2061, the California Desert Protection Act, at a press conference on February 7, 1986. Cranston emphasized that the bill would be "no-cost" because all of the areas were already under federal control.⁸⁷

The first California Desert Protection Act was the direct antecedent of the final bill that passed in 1994. It included a new Mojave National Park, without hunting, in the area designated as the East Mojave National Scenic Area, national park status for Death Valley and Joshua Tree National Monuments, and creation of an extensive amount of BLM-managed wilderness in the desert. The introduction of CDPA legislation also prompted desert users to take sides for or against the bill. The Los Angeles Times, in an editorial reflective of the attitudes of its urban constituency, endorsed the proposal. The California Desert Coalition was formed in 1986 as the

⁸⁷ Wheat, 105-113; "The Region – LA Files Response to Redistricting Suit," *Los Angeles Times* February 10, 1986.

biggest anti-CDPA group, comprised of mining, ranching, OHV, hunting, and property rights activists. Prompted by the anti-expansion attitudes of the Reagan administration, the Department of the Interior and the BLM also opposed Cranston's bill. Roy Rogers, an advocate for traditional uses of the desert which reified the individualistic American anti-regulation myth, starred in an anti-CDPA video, "Desert Lockout," produced by conservative California state senator H.L. Richardson and distributed to major news outlets. The California Desert Protection League countered with a video of their own, "Desert Under Siege," a pro-park production starring two pro-conservation scientists.⁸⁸

Despite their opposing positions, it was clear that both sides cared about the desert. In late 1985 and early 1986, the Union Pacific decided to cease operations at Kelso, and raze the 1924 vintage railroad depot because of mounting maintenance costs. People from both sides of the CDPA debate joined to save the Kelso Depot from destruction. Peter Burk, who was widely known as being stridently anti-BLM, gave an indication of the bipartisan nature of the effort when he labeled BLM leaders Ev Hayes and Gerry Hillier, as well as Congressman Jerry Lewis "the heroes who saved Kelso Depot from destruction." With the assistance of the Kelso Depot Fund, the BLM took control of the building in 1992.⁸⁹

For six years, the East Mojave National Scenic Area was administered by BLM under the statement of philosophy and the Desert Plan. During this time, several specific planning efforts targeted Areas of Environmental Concern, grazing, wildlife habitat, and burro management. The introduction of the Cranston bill in 1986 showed BLM that conservationists were genuinely unhappy with the bureau's management of the area. BLM attempted to remake its efforts in a newly sensitive light, to prove its capabilities to conservationists, and to avoid the transfer of BLM lands to other agencies. In January 1987, the Park Service reported on the suitability of the

⁸⁸ Editorial, "Go Gentle Into the Desert," *Los Angeles Times* February 17, 1986; Maura Dolan, "Pressures on National Parks Mount," *Los Angeles Times* May 25, 1986; Wheat, 113-115, 125-127, 131-132, Douglas Shuit, "Video Will Dramatize Foes' Attack on Bill to Preserve Desert Areas," *Los Angeles Times* December 16, 1987.

⁸⁹ Charles Hillinger, "Desert Hamlet Hopes to Derail Plan to Raze Depot," *Los Angeles Times* August 19, 1985; Peter Burk, quoted in Wheat, 127-131.

lands in the east Mojave for inclusion in the park system. The report itself was essentially noncommittal, but NPS Western Regional Director Howard Chapman's cover letter enthusiastically supported a park in the east Mojave. Despite a limited reception in Washington, this report increased the pressure on BLM to release a management plan for EMNSA that reflected the desire of much of the public for additional resource protection. BLM prepared a draft management plan for the EMNSA in 1987, and submitted it for public review. The plan outlined steps that would increase protection in EMNSA, including decreasing use of ATVs, closure of some roads and washes, withdrawal of some 60,000 acres from mineral use, and reclassification of 120,000 acres from class M to class L status. The agency received 327 written comments and more than 100 oral suggestions at ten public meetings. A final management plan was released to the public in mid-May 1988, but was characterized as a "significant retreat" from the draft plan, with environmental protections weakened in many cases. The plan was designed to last for ten years, until 1997, and to provide levels of support services sufficient for 200,000 visitors by that time. The EMNSA plans placed extensive emphasis on scenic quality management but only referred to historic preservation and continuation of existing uses in a parenthetical manner.⁹⁰

The EMNSA plan was perceived as "too little, too late" by many conservationists. It seemed to be a political response to the threat posed to the agency by the California Desert Protection Act, rather than a genuine expression of a change of heart toward conservation issues. More importantly, the multiple-use outlook of the agency itself suggested that BLM would never protect the land to a level satisfactory to the conservationists. As the California Desert Protection League ramped up efforts to extend permanent legislative protection over desert lands, conservationists became less interested in a BLM-based solution.

The Political Battle Over the CDPA

While BLM was struggling to create a management plan that was both compatible with its multiple-use mission and satisfactory to users across the spectrum, Cranston's California Desert

⁹⁰ Wheat, 165-166, 180-183; Infield, 88-90.

Protection Act became enmeshed in national politics. The California Desert Protection Act's fate, from its introduction through its final passage in 1994, was tied closely to the maneuvering of U.S. Senators, congressional representatives, and lobbying forces for national organizations. As with any park bill, the CDPA had advocates and detractors, and their relative political power and adroit management of the issue played a major role in the final version on the bill.

The pro-CDPA groups, unified under the California Desert Protection League umbrella, took most of their strategies and techniques from the Sierra Club. Founded in 1892 by John Muir and other well-known conservationists, the Sierra Club long cultivated close ties with policymakers. In the early 1980s, environmental organizations benefited enormously from public backlash against the anti-environment policies of the Reagan administration. The Sierra Club nearly doubled its membership between 1980 and 1983 and became the most powerful pro-environment organization in the United States, with extensive lobbying experience, close ties to many congressional representatives, and considerable legislative acumen.⁹¹ Prodded by its powerful urban Southern California membership, the national leadership of the Sierra Club committed in 1984 to a comprehensive desert bill, opening a host of resources for those Californians leading the fight. The Sierra Club wrote the text of Cranston's CDPA bill, drew the maps showing the new parks and wilderness areas, and collected photos and narrative descriptions of every location included in the bill. The Sierra Club relied on information created by BLM planners in the course of creating the original Desert Plan, but the organization's political savvy transformed that work to advocate the passage of the CDPA.⁹²

Cranston was the California Desert Protection Act's senatorial author and chief advocate in that body. Cranston had a genuine love of the desert - one of his earlier desert bills became the section of FLPMA that called for creation of the Desert Plan. In 1987, he took a series of trips to the desert to raise public awareness of the area and the bill before Congress and was fond of describing his earlier desert hikes. Throughout the 1980s and into the 1990s, Cranston's bill did not progress in the Senate because of Pete Wilson, the Republican who held California's

⁹¹ Rothman, *Saving the Planet*, 21, 170-171.

⁹² Wheat, 105-110.

other Senate seat. Through 1987 and 1988, Wilson was carefully noncommittal about the CDPA, hoping to earn part of the pro-environment vote in his 1988 reelection campaign. The Sierra Club endorsed his opponent Leo T. McCarthy, who was strongly in favor of the CDPA, and Wilson's neutrality turned to hostility toward the CDPA until he resigned his Senate seat and became governor of California in 1990.⁹³

The push for the California Desert Protection Act began in earnest in January 1987, when Cranston reintroduced his 1986 bill as the new session of Congress began. Known as S.7, Cranston's bill was also introduced by California Representative Mel Levine in the House as HR 371. Unlike its senatorial predecessor, which was introduced late in the session and was never acted upon, S.7 received several days of testimony, both pro and con, during hearings on the bill. Of greater importance to the eventual success of the CDPA was the media attention S.7 received in California. The California Desert Protection League worked to get endorsements of the bill, but S.7 never advanced to a vote because of Wilson's opposition.⁹⁴

Undaunted, Cranston reintroduced the bill in January 1989 as S.11, and Representative Levine's identical House version, HR 780, was introduced a week later.⁹⁵ Some minor adjustments were made by Cranston and Levine to appease specific opponents, a pattern that continued throughout the legislative history of the California Desert Protection Act. By the time S.11 was introduced, members of the California Desert Protection League had gathered large numbers of endorsements from counties, cities, and organizations throughout California. The eight largest cities in the state endorsed the idea, as did most of the urban counties of Northern and Southern California. Opponents of the bill, including California State BLM Director Ed

⁹³ Ronald B. Taylor, "Cranston Desert Bill Poses Classic Conservation Fight," *Los Angeles Times* April 19, 1987; Wheat, 216-220; Frank Clifford, "Sierra Club Officials Cool to Wilson, But Warm to Foe," *Los Angeles Times* March 13, 1988.

⁹⁴ Wheat, 214-215; Burk, *Making of the Mojave National Preserve*, 28-31; Frank Clifford, "Wilson Hasn't Cooperated on Desert Bill – Cranston," *Los Angeles Times* June 30, 1988; Frank Clifford, "Desert Bill Dies, Cranston and Wilson Blame Each Other," *Los Angeles Times* July 8, 1988.

⁹⁵ Josh Getlin, "Round 2 of Desert Preservation Battle to Begin," *Los Angeles Times* January 26, 1989.

Hastey, worked to gain endorsements of their position as well, and received the support of rural governments and local desert populations in their fight against the act.

The opposition to the California Desert Protection Act can broadly be categorized as a loose coalition of issue-specific opponents combined with a core of anti-Park Service, anti-government ideologues. Pro-mining, pro-OHV, pro-grazing, and pro-hunting groups, along with utility and communications companies, all believed that their primary issue would receive less regulation and fewer restrictions under BLM management than under NPS control. Additionally, some citizens disliked increased government regulation in any form, and opposed a park in the Mojave. While they identified with and worked with the single-issue advocates, the broadly anti-park forces were often locals, who believed that the eastern Mojave did not qualify as a park and that the Park Service would ruin their way of life if the area changed to a different government agency. Anti-park feelings were intensified by the fact that most pro-park forces did not live in the area; locals saw the CDPA as an example of outsiders and politicians who did not know the desert telling them what to do. This attitude was a legacy of the “Sagebrush Rebellion,” the states rights movement that briefly flourished in the West between 1979-1982, and the so-called “Wise Use” movement that echoed it a decade later. The Sagebrush Rebellion and its later incarnations derived their power from a widespread fear that environmental regulations conflicted with economic activity. Concern for the environment has been labeled a “full-stomach” phenomenon, most prominent when times are good economically. In the prosperous days of the 1960s, it seemed as though there was more than enough to go around, but after the OPEC oil embargo of 1973 started the American economy into a long downward slide, workers and politicians alike worried that newly enacted environmental laws would cost jobs and stunt America's growth. Politically, most of those who subscribed to the tenets of the Sagebrush Rebellion gravitated toward the Republican Party. Most of the staunch political opponents of the CDPA, such as Senator Malcolm Wallop of Idaho and Representative Jerry Lewis of California, traced their political philosophy to the Sagebrush Rebellion and acted

against the CDPA out of concerns of expansion of federal control and increased environmental regulation.⁹⁶

Those actively in favor of the California Desert Protection Act generally identified themselves as environmentalists and often were members of one or more nationally organized conservation groups. They generally believed the Bureau of Land Management, because of its multiple-use mission and its history of conflicting management policies, could not be trusted to provide lasting protection for fragile desert lands. Over time and after significant media coverage of the CDPA debate, much of the urban California public agreed with the need for greater protection for parts of the California desert. The urban press at its most extreme portrayed the main CDPA opponents as welfare ranchers, welfare miners, right-wing extremists, and juvenile yahoos on fast dirt bikes who tore up the desert for thrills. Certainly, such hyperbole and exaggeration contributed to a lack of sympathy for CDPA opponents among the urban California public.

Congressional field hearings demonstrated the depth of feeling on both sides of the CDPA issue, but the public's sharply polarized views did nothing to break the senatorial stalemate. In July 1989, the House began holding hearings on HR 780, with typical Washington, DC-based hearings supplemented by three field meetings in California. The first, in late October 1989 in Bishop, set the tone for the subsequent two hearings. Supporters of the CDPA arrived in yellow shirts, and opponents, mostly off-road vehicle users, wore orange. Estimates of attendance ran as high as about one thousand, evenly divided between opponents and supporters. Both sides cheered or booed speakers, according to their philosophy, and chanted slogans supporting their positions. At the second hearing, held in Barstow two weeks later, both sides used the same kinds of tactics, although supporters got a jump on the opponents and occupied most of the chairs in the meeting room as soon as the doors were opened, guaranteeing a "sea of yellow" in the Congressmen's view. The final hearing, held in Beverly Hills in February 1990, was

⁹⁶ Rothman, *Saving the Planet*, 158-170; also see R. McGregor Cawley, *Federal Land, Western Anger: The Sagebrush Rebellion and Environmental Politics* (Lawrence, KS.: University Press of Kansas, 1993).



Illustration 10 - Many desert users fiercely opposed the CDPA. This painted sign, constructed by a four-wheel drive club, still hangs on a building in a remote part of the Preserve. (Photo by Eric Nystrom, 2002.)

chaotic, filled with angry and rude OHV riders smarting from the two-month-old announcement of the cancellation of the 1990 Barstow to Vegas ride. These hearings seemed to do nothing more than polarize debate over the CDPA. Later that year, Wilson and Senator James McClure (R-Idaho), a long-time opponent of conservation in almost every form, halted S.11's progress in a Senate subcommittee.⁹⁷

Although the California Desert Protection Act was associated most closely with Senator Cranston, the most substantial moves toward desert protection in the early 1990s took

place in the House of Representatives, where a clear Democratic majority and spirited leadership overcame obstacles that derailed the Senate version. Beginning in 1991, conservation groups focused their lobbying energy on the House after it became apparent that senatorial deference precluded further action on Cranston's reintroduced bill - S.21. Representative George Miller, a California Democrat who became a leading supporter of the CDPA, chaired the House Interior Committee. He assigned Mel Levine and Rick Lehman, two California supporters who had different visions for the CDPA, to a special subcommittee to draft a bill that would be an

⁹⁷ Burk, *Making of Mojave National Preserve*, 33-34; Wheat, 221-228; Sue Ellen Christian, "Desert Preservation Bill Stalled in Senate Panel," *Los Angeles Times* September 27, 1990; Christian, "Cranston Shelves Ambitious Desert Parkland Measure," *Los Angeles Times* October 10, 1990.

acceptable compromise. Levine favored a proposal with a Mojave National Park, but Lehman disagreed, believing that the area did not merit national park status. The bill they crafted, HR 2929, gave several concessions to leading single-issue opponents, and specified the creation of Mojave National Monument, with no hunting allowed. Despite opposition from Rep. Jerry Lewis, who had his own limited-protection bill, and the Bush administration, which proposed only ratifying those WSAs approved during the Watt years as wilderness, HR 2929 reached the House floor in late November. Opponents tried to pass several amendments that would have killed the bill, but the Democratic-majority House, combined with Miller's strong leadership, foiled the attempts. One amendment, authorizing hunting in Mojave National Monument, was approved largely as a way for lawmakers to appease the powerful National Rifle Association. HR 2929, including Mojave National Monument with hunting allowed, passed the House of Representatives on November 26, 1991.⁹⁸

The bill did not pass the Senate. At first, Senator John Seymour, Wilson's appointed successor, indicated a willingness to compromise with the proponents of the CDPA. Under pressure from Republican leaders and the Bush White House, Seymour's stance turned to opposition. Senator Cranston announced that he intended to retire in 1992, and Republicans were unwilling to give him a legacy project. In April 1992, Seymour held a U.S. Senate field hearing - a rare event - in Palm Desert, California, where the typically polarized testimony took place. Seymour used the opportunity to speak against the CDPA and its advocates, an unpopular position based on a 3-to-1 margin of support for the CDPA bill among Californians in a September poll. In June, desperate to see to fruition the project he championed for years, Cranston offered to reduce the size of BLM wilderness and eliminate Mojave National Park entirely, but Seymour refused to compromise. S.21 did not make it out of committee.⁹⁹

⁹⁸ Bill Stall, "Wilderness Status Urged For Only Part of State Desert," *Los Angeles Times* July 27, 1991; Glenn F. Bunting, "House Panel Oks California Desert Preservation Bill," *Los Angeles Times* October 2, 1991; Bunting, "House Oks Landmark Desert Protection Bill," *Los Angeles Times* November 27, 1991; Wheat, 229-234.

⁹⁹ Robert W. Stewart, "Seymour Caught in Whirlwind of Change," *Los Angeles Times* January 27, 1991; Bill Stall, "Seymour Seeks End to Battle in Desert," *Los Angeles Times* May 26, 1991; Glenn F. Bunting, "Cranston, Seymour Clash Over Desert Bill," *Los Angeles Times*

The political landscape changed drastically in the November 1992 election, and with it, the California Desert Protection Act gained its first real chance of success. Bill Clinton, a Democrat, was elected president, removing White House opposition to the passage of the CDPA. Barbara Boxer, a Democrat, filled Cranston's seat, and pledged her support for the act as well. More importantly, an election was held at the same time for the seat held by Seymour, who was originally appointed when Wilson resigned to become governor. Seymour lost in the Republican primary, and Democrat Dianne Feinstein beat her Republican challenger to win Wilson's former post. As a result of the staggered Senate terms, Feinstein had to run for the Senate again in 1994, just two years hence. Like Boxer, Feinstein supported the CDPA, and made an issue of it on the campaign trail. In support of Feinstein's impending reelection, Boxer agreed to let her colleague spearhead the fight. Passage of the CDPA became Feinstein's top priority, and would be proof to the voters that the new senator could do her job well. Feinstein hired Kathy Lacey, Cranston's environmental aide, who had been very involved in the CDPA effort from the beginning.¹⁰⁰

In January 1993, Feinstein introduced the California Desert Protection Act as S.21, which consisted of most of Cranston's last bill, plus many of the HR 2929 compromises. The draft included provisions for a Mojave National Park without hunting, continuation of grazing for twenty-five years, and exclusion of Viceroy Gold's claims around the Castle Mountain Mine from the park. In the House, Rick Lehman introduced HR 518, similar to Feinstein's S.21 but calling for a Mojave National Monument, with no sunset on grazing in the park, and with Viceroy's claims included in the monument's boundaries. In late 1992, Henri Bisson replaced Gerry Hillier as the BLM Manager of the California Desert District. Not in favor of the bill,

January 14, 1992; Wheat, 230-232, 235-238; Glenn F. Bunting, "Seymour Maneuver Bottles Up Desert Bill in Committee," *Los Angeles Times* August 6, 1992; Glenn F. Bunting, "Cranston's Desert Protection Measure Fails For Sixth Year," *Los Angeles Times* September 23, 1992.

¹⁰⁰ Dean E. Murphy, "Feinstein Off to Job, Boxer Takes Break," *Los Angeles Times* November 5, 1992; Glenn F. Bunting, "Senators Reverse Styles to Match New Roles," *Los Angeles Times* March 8, 1993.

Bisson was willing to work civilly with the CDPA advocates to make minor boundary adjustments on the congressional maps based on up-to-date information from the field.¹⁰¹

The Senate Energy and Natural Resources Committee had been the failure point for previous CDPA attempts, but from the first hearings in April 1993 onward, prospects looked good for the bill. Proponents organized a campaign to convince Senator J. Bennett Johnston (D-Louisiana), chair of the committee, that the proposal was worthy of his support. Johnston was initially in favor of hunting in Mojave National Park, but after his daughter told him that she was afraid of hunters' guns in an NPS Preserve in Louisiana, Johnston supported a no-hunting park. Feinstein made a considerable number of compromises to appease single-issue opponents to the bill. She compromised with the American Motorcycle Association over desert OHV routes, the Catellus company on land swap provisions, and utilities on rights of way issues, to name only a few. One crucial concession came after Feinstein visited the Oversons and the Blairs, two ranching families in the eastern Mojave. They argued that any sunset on grazing would destroy the value of their leases and their livelihoods, and convinced Feinstein to change the proposal to allow grazing indefinitely.¹⁰²

Feinstein was not a member of the Senate Energy and Natural Resources Committee, so Senator Dale Bumpers (D-Arkansas) agreed to work on her behalf in committee. Republicans on the committee attempted to burden the bill with "poison pill" amendments - provisions that would undo the legislation if passed - but the Democratic majority managed to defeat all of them. One problem arose over the issue of what to do with the private lands in Lanfair Valley. Bruce Babbitt, Secretary of the Interior, favored a complex management formula; Feinstein preferred a much simpler alternative, and Senator Wallop argued that the valley should simply be deleted from the park. Senator Ben Nighthorse Campbell (D-Colorado), who had been voting with the Democrats, agreed with Wallop for an unexplained reason likely associated with his future March 1995 switch to the Republican party, and the amendment deleting Lanfair Valley was

¹⁰¹ Glenn F. Bunting, "Feinstein To Lead Off With Desert Bill," *Los Angeles Times* January 21, 1993; Wheat, 235-244; Burk, *Making Mojave National Preserve*, 37; Burk, *East Mojave National Scenic Area*, 15.

¹⁰² Infield, 306-307.

inserted in the bill. The map that the committee called “Lanfair Valley” in actuality covered much more than the valley itself - some twenty percent of the total land, from Piute Creek to Hole-in-the-Wall, was included on the map, and therefore was left out of the park. Without any of the senators realizing what happened, the bill passed out of committee on October 5, 1993.¹⁰³

Conservationists quickly realized that the deletion of lands in Lanfair Valley, known as the “Lanfair Bite,” was an omission of major proportion. Elden Hughes of the Sierra Club produced a series of photographs, keyed to a map, that depicted major resources that would be left out if the Bite went through. Gary Overson, whose lands were included in the Lanfair Bite, wrote to Feinstein asking to have his property included in the park, to make it possible for him to sell his ranch to the Park Service if he so desired. The bill moved to the Senate floor in late March, and serious debate began in April 1994. Several procedural amendments were added without debate, then Senator Wallop proposed an amendment that would delete Mojave National Park from the bill. After much debate, Wallop’s amendment failed. Another poison pill amendment was proposed and failed. Then several other hostile amendments were withdrawn before debate. Senator Johnston added an amendment creating the New Orleans Jazz National Historical Park, then announced that there were no more amendments. Park opponents, led by Wallop, cut a deal with Johnston and Feinstein: if CDDPA proponents did not add any more amendments, the opposition would not either. Feinstein had to make the choice between a flawed Senate bill or none at all. She decided to try to make up the deficiencies in the House, and let the bill pass on April 13, 1994.¹⁰⁴

Two weeks later, Congressman Miller began the committee process in the House. The House version called for a National Monument without hunting in the eastern Mojave. Rick Lehman offered an amendment, since known as the “Lanfair Nibble,” that excluded any non-Catellus private lands from the park, thereby addressing the property rights concerns that

¹⁰³ Wheat, 252-257; Glenn F. Bunting, “Desert Bill Easily Passes Key Senate Committee Vote,” *Los Angeles Times* October 6, 1993.

¹⁰⁴ Wheat, 257-261; Glenn F. Bunting, “Desert Protection Act Clears Senate,” *Los Angeles Times* April 14, 1994.

prompted the original Lanfair Bite without unnecessarily excluding vast amounts of federal land from the park. The rest of the bill passed the committee the same day.¹⁰⁵

There are no filibusters in the House, but a similar stalling effect can be achieved by throwing amendments at a bill until time for debate runs out. This was die-hard opponent Jerry Lewis' strategy to kill the CDPA. The House Rules Committee, which sets procedures for debate on each House bill, acted at the urging of CDPA proponents to make it more difficult for Lewis to carry out his plan by requiring that all amendments to HR 518 must be printed ahead of time. Even so, Lewis and his allies were able to print some forty amendments in time. The rule allowing the CDPA to come to the floor passed on May 17, though not before some unusually acrimonious debate between Lewis and Miller. After the rule passed, time could be scheduled to debate the bill before the House, but only when appropriations bills were not under consideration, as that legislation takes precedence over other House business. The House worked on the bill throughout June and July, a little bit at a time, as Lewis successfully prolonged the proceedings such that only a few amendments could be considered on any given day.¹⁰⁶

House opponents successfully added one of the most significant changes to the bill, the addition of hunting in what later became Mojave National Preserve. On July 12, Larry Larocco (D-Idaho) proposed an amendment to allow hunting in the east Mojave park proposed by the bill, and call the unit a National Preserve rather than a National Monument. His amendment passed, by a vote of 239-183, in the majority-Democratic House - a clear indication of the bipartisan power of the National Rifle Association and other pro-hunting groups. These lobbying groups harkened to the recreational value of hunting activity, the historic nature of the practice, and the benefits derived by non-hunted animals from water sources improved for game animals.¹⁰⁷

¹⁰⁵ "House Committee Approves Desert Protection Act," *Los Angeles Times* May 5, 1994; Wheat, 262-263.

¹⁰⁶ Wheat, 264-270.

¹⁰⁷ James Bornemeier, "House Vote Downgrades Desert Land Status," *Los Angeles Times* July 13, 1994.

The hunting issue was more complex than proponents of the change allowed. The primary game animals, in terms of numbers of hunters and numbers of animals harvested, were deer and upland birds like quail and chukar. The total annual harvest of deer, an introduced species in the area, was less than twenty-five animals annually, which, as conservation lobbyists were fond of pointing out, was fewer than the number that were hit and killed by automobiles each month on the George Washington Parkway in D.C. There were many places in California and the west that offered better deer and bird hunting. However, the east Mojave was one of the only places in the world where hunting of Nelson Bighorn Sheep was allowed, beginning in 1987. The volume was small, with an average of five or six tags a year distributed by a computer's random number generator, and one additional tag auctioned publicly, usually for more than \$100,000, with the money going back to California Department of Fish and Game. Sheep hunting, an elite activity practiced in small volume by rich hunters, was the biggest reason that the National Rifle Association and other pro-hunting groups worked so tirelessly to permit hunting in Mojave National Preserve, even though their public arguments largely ignored the issue.¹⁰⁸

By late July 1994, George Miller noticed that members of the House of Representatives were growing tired of Lewis's stalling tactics. Miller engineered a motion to cut off debate and vote on the bill. It passed on July 27, 1994.¹⁰⁹ Even though the Senate and the House had both passed the bill, it was still possible for opponents to kill the measure. If both houses did not pass an identical conference bill before they adjourned in October, the measure would simply vanish without a vote, and the process would have to begin anew the following session. Lewis pledged to delay the bill, and Senator Wallop likewise promised to filibuster. In the Senate, a vote of cloture, which limits debate and cuts off a filibuster, is itself a multiple-day process that requires sixty votes to pass, and the simple procedure of going to conference over a bill requires three

¹⁰⁸ For example, 1998's auction tag fetched \$150,000; see Steve Torres, "Apply For Your 'Hunt of a Lifetime'" *Tracks: News About California Deer and Other Big Game* 16 (1999): 15; Wheat, 271-273; Infield, 286-295.

¹⁰⁹ James Bornemeier, "House Oks Bill Protecting Vast Desert Acreage," *Los Angeles Times* July 28, 1994.

motions, each potentially subject to a separate filibuster. In late August, both Lewis and Wallop suggested a compromise that would create a small park in the eastern Mojave, surrounded by a larger preserve with hunting permitted. This proposal was inspired by the example of the Alaska parks created by the Alaska National Interest Lands Conservation Act, known by its acronym ANILCA, where sportsmen are allowed to hunt in national preserves, administered by the Park Service, that adjoin several national parks in Alaska. Some proponents were willing to go along with the plan, but the Park Service did not agree with the compromise and the idea was dropped.¹¹⁰

Conservation advocates marshaled their forces to fight conservative threats to the desert bill. Environmental organizations utilized nationwide phone banks to rally support against Wallop's probable filibuster. Senate Majority Leader George Mitchell planned to retire that year, but agreed to help whenever possible. The first motions needed to send the bill to a conference committee were scheduled for a Thursday, and Mitchell threatened to hold the Senate in session over the weekend to break the filibuster if it was necessary to do so. Under pressure from both sides of the aisle, Wallop agreed to a deal whereby the Senate waited the same amount of time a filibuster would have taken before voting. On October 4, 1994, the Senate voted to go to conference and appointed the conferees. The same afternoon, the House took up the measure. Lewis again tried to delay, succeeding only in stretching thirty seconds worth of voting into a multiple-hour procedure. Before the conferees met, Johnston, Feinstein, and Miller agreed that, because of the lateness of the session and the political factors involved, the ultimate compromise

¹¹⁰ In the ANILCA parks, Alaska natives are allowed to hunt in the national parks themselves as well as in the national preserves. The preservation of "customary and traditional" subsistence hunting was designed to minimize the disruption that designation of the areas as national parks would have on local lifestyles, and was an unstated acknowledgment of the role of human predation in the sustainable functioning of the Alaskan ecosystem. The situation in the eastern Mojave was different, as human predation had not been a longstanding, sustainable part of the ecosystem since the arrival of the American settlement in the 1860s, and hunting was of chief importance to a small group of elite trophy hunters who wished to harvest bighorn sheep. For a good overview of the role of hunting in the Alaska parks, see Darryl R. Johnson, "National Parks and Rural Development in Alaska," in Gary E. Machlis and Donald R. Field, eds., *National Parks and Rural Development: Practice and Policy in the United States* (Washington, DC: Island Press, 2000), 132-163; Wheat, 273-278.

would consist of a Mojave National Preserve with hunting, as specified by the House where the National Rifle Association held considerable power, but that the Lanfair Bite would be reduced to the Lanfair Nibble. At the appropriate time, the majority of conferees met and passed the agreed-upon compromise in less than two minutes, adjourning before the Republican minority could arrive and delay the proceedings.¹¹¹

According to Senate rules, the House was required to pass the conference report first. After considering other business and further delays by Lewis, the House passed the final bill after 1:00am on October 7, the day Congress was scheduled to adjourn. After the House vote, the Senate considered the measure. Wallop insisted on his right to filibuster, and in response Mitchell announced that he would hold the Senate past the scheduled date of adjournment until the filibuster was broken and the bill passed. National elections were less than a month away, and several of Wallop's GOP colleagues, up for reelection, prevailed on the Senator to relax his demands and permit a cloture vote to be taken at 10:00am on Saturday, October 8, 1994.

A victory for the pro-conservation forces was by no means assured. Cloture required sixty votes, which meant that several Republicans had to vote, along with every Democrat, to proceed. To make things worse, senators were already leaving town, and some had to be persuaded to stay an extra day or be brought back to Washington to vote. Earlier votes showed a large number of Republicans in favor of the measure, mostly because the bill was a pro-environment vote that did not affect their state, but the Republican Senate leadership asked members to hold their vote unless the bill was clearly going to pass. If enough Republican senators held their votes, the remaining Democrats could not break the filibuster. Several pro-environment moderate Republicans voted for cloture anyway. In a moment of high drama, the tally of votes for cloture reached fifty nine and stopped. Just after time expired, Senator Carole

¹¹¹ Wheat, 279-284; James Bornemeier, "Desert Protection Act Imperiled," *Los Angeles Times* September 20, 1994; "Desert Bill – A Messy Anticlimax," *Los Angeles Times* September 22, 1994; James Bornemeier, "Desert Bill, Threatened By GOP, Inches Ahead," *Los Angeles Times* September 24, 1994; James Bornemeier, "Desert Bill Deadlock Broken," *Los Angeles Times* September 30, 1994. Feinstein showed a willingness to compromise on the status of the park in the east Mojave as early as April 1993, see Howard Libit, "Compromise By Feinstein On Desert Measure Possible," *Los Angeles Times* April 28, 1993.

Moseley-Braun (D-Illinois), delayed by a malfunctioning garage-door opener, burst into the chamber to cast the deciding vote. With passage assured, seven more Republicans who withheld their votes endorsed the cloture, and the bill itself passed by voice vote moments later. President Bill Clinton signed the bill into law on October 31, 1994, eliminating the East Mojave National Scenic Area and giving birth to the Mojave National Preserve.¹¹²

During the long debate about the California Desert Protection Act, most of the single-issue opponents were pacified by compromise. Some active mines and mining claims were drawn outside the boundaries to placate mining interests, grazing was allowed to continue indefinitely instead of expiring after twenty five years as originally planned, utilities were given specific language in the final bill permitting expansion and upgrade of rights-of-way, and after much debate, hunting was permitted in the park. Those opponents with the most political clout, such as the National Rifle Association, tended to object to a single issue. As such, the ranks of CDPA opponents were gradually whittled away, leaving in the final calculus a passable though compromised bill and a small group of die-hard opponents who felt as though they had been ignored as the park had been forced upon them. These opponents included many local residents and at least one powerful U.S. Congressman, and provided a note of discord that was largely ignored in the conservationists' elation over the bill's passage and the subsequent difficulties encountered in starting a new unit of the National Park Service.

¹¹² Faye Fiore, "Feinstein Desert Bill Hangs In Balance in Senate," *Los Angeles Times* October 7, 1994; Edwin Chen, "Senate Vote Expected Today on Desert Bill," *Los Angeles Times* October 8, 1994; Edwin Chen, "Filibuster Broken, Senate Oks Calif. Desert Protection Legislation," *Los Angeles Times* October 9, 1994; Wheat, 288-298. The California Desert Protection Act is Public Law 103-433.

Four: AN AWKWARD START AND THREATS OF AN EARLY END

On October 31, 1994, the Mojave National Preserve became the newest unit of the national park system. Creating a new administrative structure to manage 1.6 million acres of land was a formidable task. The initial park staff borrowed resources, relied heavily on other agencies, and had to “make do” as best as they could. Politics made their task infinitely more difficult. After the CDPA became law, a congressional opponent attempted to cripple the park by providing an appropriation of one dollar to administer the Preserve. The future of Mojave National Preserve became embroiled in a drawn-out political fight, while park staff faced relocation, emotional trauma, and uncertainty about the future. They actively sought to create better relations with anti-park forces, laying the foundation for the survival of the Preserve. The crisis came to an end in April 1996, and it was clear that Mojave National Preserve would survive as a unit of the National Park Service.

After the CDPA conference report passed Congress, Alan O’Neill, Superintendent of Lake Mead National Recreation Area, was appointed Acting Superintendent of the Mojave National Preserve. Frank Buono, who had worked extensively on the transition, was named as his assistant. O’Neill spent as much time as possible on the Preserve, but his Lake Mead duties consumed his time as well. Buono likewise worked to resolve the mountain of tasks facing the brand-new institution. O’Neill contacted locals and inholders in the new Preserve, including the Oversons, the Blairs, and Dennis Casebier, and informed them about what to expect with the new park, with the hope of mollifying some of their worst fears. He also worked with BLM to transfer the budget and resolve administrative issues. O’Neill also represented the interests of the new Preserve at the meetings of the Desert Managers’ Group, of which he was already an active member.¹¹³

¹¹³ Author interview with Marvin Jensen, November 26, 2002.

The transition report prepared in 1993 emphasized the need for the Park Service to establish a management presence in Mojave immediately after passage of the CDPA. The two measures advocated by the report were the immediate dispatch of law enforcement to the area and posting of signs to indicate the changed status.¹¹⁴ O'Neill brought a Special Events Team (SET) of rangers from other parks to secure the area; they operated from BLM's fire station at Hole-In-the-Wall and stayed during November 1994.¹¹⁵ The SET team posted no-driving signs in the washes and patrolled the park for illegal activity. The appearance of these rangers caused tremendous friction and misunderstanding with the local residents. Mary Martin, an early park employee who became Superintendent in 1995, described the effect of the SET team:

“[T]hey expected to find drug labs and people that didn't like them, so they wore their 'second-chance' vests on the outside of their uniform and apparently had their shotguns and rifles very present. So locals, who for ten years had gone through this debate about the Park Service coming out and taking [their] land... They see rangers out there with guns putting up signs. So they think 'a-ha! Just what we expected from the Park Service.’ ”¹¹⁶

The SET team's mission to secure the resources of the new Preserve was deemed complete, and the team left at the end of November 1994. Thane Weigand, a ranger from Lake Mead, and Joe Gerken, a seasonal ranger, were stationed at Hole-In-the-Wall to patrol the Preserve. On November 13, 1994, O'Neill hired two visitor use assistants. Ruby Newton worked out of the California Desert Information Center in Barstow, and seasonal Michael Marion staffed Hole-In-the-Wall.¹¹⁷

¹¹⁴ California Desert Transition Work Group, “The California Desert in Transition: The Opportunity for Bioregional Management,” October 1993, in CDPA Activation binder, Superintendent's Office, Mojave National Preserve (MOJA) Headquarters, Barstow CA, 10.

¹¹⁵ The rangers were from Golden Gate, Lake Mead, Grand Canyon, and Sequoia-Kings Canyon; their supervisor, from Organ Pipe Cactus, never came to the Preserve. Peter Burk, *Mojave National Preserve: 1994-1995* (Barstow: Citizens for Mojave National Park, December 1995), 9; “Draft Superintendent's Annual Narrative Report for Fiscal Year 1995,” in Binder “Mojave National Preserve,” MOJA Headquarters, Barstow CA, 1.

¹¹⁶ Author interview with Mary Martin, March 29, 2002, Barstow CA, Disc 1.

¹¹⁷ Burk, *Mojave National Preserve*, 10; “Draft Superintendent's Annual Narrative Report for Fiscal Year 1995,” 12.

As soon as passage of the California Desert Protection Act seemed probable, the Park Service began organization of the first staff of Mojave National Preserve. Marvin O. Jensen served for more than six years as Superintendent of Glacier Bay National Park in Alaska when he decided that he would like one more assignment before retirement. His preference was for a desert park, hopefully Death Valley National Monument. When the California Desert Protection Act seemed assured of passage, Jensen accepted the superintendency of Mojave National Preserve offered by John Reynolds, Deputy Director of the Park Service.¹¹⁸ Mary Martin, assistant chief personnel officer in Washington D.C., was approached in May 1994 by Reynolds to see if she was interested in becoming deputy superintendent of Mojave if the CDPA became law. After the passage of the California Desert Protection Act in October, Martin was assigned the task of working with Reynolds and Department of the Interior officials to choose the initial employees for the infant park. After negotiations between the Park Service and Department of the Interior (DOI) staff, Secretary of the Interior Bruce Babbitt named the first three members of Mojave's staff: Superintendent Marv Jensen, Deputy Superintendent Mary Martin, and Assistant Superintendent for Ecosystem Management Frank Buono, formerly of the Albright Training Center at Grand Canyon National Park who was then serving as Alan O'Neill's assistant for the Preserve.¹¹⁹ On January 13, 1995, Jensen was formally appointed superintendent of Mojave National Preserve, marking the transition from interim management under Lake Mead National Recreation Area staff to the permanent team of Jensen, Martin, and Buono.¹²⁰ The new staff worked out of Lake Mead NRA headquarters in Boulder City, Nevada. Jensen described the interim arrangements:

“Alan O'Neill, superintendent out there, was extremely supportive. [O'Neill] offered to provide administrative help, so that our payroll got done, our travel got done, the hiring of people got done, some actual staff assistance, some biologists and rangers in the Preserve, we had his airplane when we needed it. He moved people aside, squeezed them up, so that we could have part of his offices there, which he didn't have too much of either. He just did a tremendous job of

¹¹⁸ Author interview with Marvin Jensen, via telephone, November 26, 2002.

¹¹⁹ Author interview with Mary Martin, March 29, 2002, Disc 1.

¹²⁰ In interview, Martin recalls January 10, 1995 (Tuesday) as the official start date; Burk printed January 13, 1995 (Friday). Burk, *Mojave National Preserve*, 12.

providing that place to work out of and the staff assistance that we needed to make things work.”¹²¹

The initial staff was top-heavy, relative to the budget of the park. The plan suggested by the Transition Action Report called for key leadership posts to be filled first, then other employees as expanding budgets permitted. Still, the budgetary implications of such a structure caused Jensen some concern:

“So they said you’ve got two assistant superintendents and I said ... this doesn’t make any sense to me. Here we are in a fledgling park, brand new, we don’t even have field staff, we don’t have field rangers, we don’t have field anything, and we have a very limited budget, \$600,000 and some odd loose change, coming from BLM’s operations accounts, and that’s all we’ve got. And you’re going to put more than half of that into the superintendency, the superintendent’s office? That doesn’t make any sense at all.”¹²²

Jensen and Martin arrived before their permanent appointments took effect and began the groundwork for the new park. They attended their first meeting of the Desert Managers' Group in Riverside, California, in late November 1994, and started to map Mojave’s role in the impending planning efforts. This group was formed to promote ecosystem-wide management of the desert, by all of the various agencies involved with land management in Southern California. As part of Vice President Al Gore’s “reinventing government” initiative and enthusiastically championed by Interior Secretary Bruce Babbitt, ecosystem planning directed some facets of the early history of the park.¹²³

The newly arrived staff also served as liaisons to pro-park locals. Many local residents were against the CDPA and disliked the Preserve at first, but some groups of local residents displayed their support of the new park. Peter Burk and the Citizens for Mojave National Park organized a reception for Mojave staff in Barstow on January 21, 1995. Six organizations, representing pro-growth coalitions from several area towns excited about the prospect of park-based tourism, presented resolutions in favor of the Preserve. Those from Barstow “invited” the

¹²¹ Author interview with Marvin Jensen, November 26, 2002.

¹²² Author interview with Marvin Jensen, November 26, 2002.

¹²³ See chapter five for more information about ecosystem planning.

Preserve to locate its headquarters there; the resolutions from Baker encouraged the National Park Service to create facilities in their hamlet as well. These park-friendly locals clearly appreciated the potential for economic activity that could come with a new federal organization.¹²⁴

Other local residents vented their unhappiness with NPS control, especially after signs prohibiting commercial traffic through the park were constructed along roads leading into the Preserve. This action, though perfectly correct according to 36 CFR 5.6, was another public relations disaster.¹²⁵ Observers accused the Park Service of “marking its territory” and engaging in a land grab. Other residents were clearly worried about the implications of the ban on commercial vehicles that the signs' wording suggested. The regulations were designed to prohibit long-haul truckers from using park roads for a shortcut, but the signs were not carefully worded and appeared to prohibit all commercial traffic. This seemed to exclude dump trucks hauling away cinders from local mines, diesels with trailers that took cattle to market, supply trucks carrying groceries to stock the shelves of the Cima store, and even the tankers that delivered propane to heat and power homes in remote places in the Preserve. This perception only fed the flames of anti-Park Service rhetoric. Under intense pressure, the signs were removed. Reworded, they were posted again later, after a public education campaign clarified the spirit of the regulations.

One of the first tasks for the new park managers was to set up headquarters. By the 1990s, the NPS no longer constructed extensive headquarters facilities inside new parks, for fiscal and environmental reasons. Instead, headquarters would typically be established in the nearest town with sufficient services for park employees. Several places vied for the location of the headquarters of the new Preserve. The East Mojave National Scenic Area was administered

¹²⁴ Resolutions from the City of Barstow, the Barstow Chamber of Commerce, the Newberry Springs Chamber of Commerce, the Provident Corporation (owners of Nipton), the Baker Chamber of Commerce, and the Baker Community Service District were presented to Marv Jensen at the gathering. “Resolutions Supporting Mojave National Preserve,” *Mojave National Preserve Monitor* 2 (Feb. 1995): 5.

¹²⁵ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 2.

from a BLM office in Needles, and that city was eager to receive the headquarters of the new Preserve as well. The 1993 transition report identified Baker as the nearest suitable location for offices. Barstow, though farther away, had a greater availability of housing and services. Jensen had worked in parks, such as Glacier Bay, where the availability of housing was a significant issue in attracting and retaining quality employees. He chose to site the Preserve's future headquarters in Barstow based on the availability of services, housing, and freeway access there.¹²⁶

Mojave continued to expand its complement of personnel. George W. "Bill" Blake was transferred from New River Gorge NRA to become the park's first Chief Ranger, and formally assumed his duties in early March 1995. His wife, Bettie Blake, was hired as secretary for the park. Two more seasonal rangers were added the same month.¹²⁷ The growing staff moved out of Lake Mead National Recreation Area's headquarters and into shared space at the BLM office in Barstow on March 13, 1995. It was easier to plan for a Barstow headquarters from a temporary location in the same city, but the NPS staff did not have space to call their own. Park files were stored in the back of Martin's Volvo, and the entire staff shared a cubicle with a BLM wildlife biologist. "We'd take turns at the desk, on the phone," recalled Martin.¹²⁸

The work of setting up a new park was difficult, often in unexpected ways. Lake Mead NRA provided administrative services to Mojave, but was located some 170 miles from the Barstow offices. Procuring essential supplies was difficult, making it a challenge to find a pen or photocopy a document. This difficult working environment slowed down the work of headquarters staff until Dave Paulissen, the park's first Administrative Officer, was hired in June 1995.¹²⁹ Mary Martin suggested that community relations may not have received enough attention because of the struggle to create the park's structure. To her, the lesson was clear:

¹²⁶ Author interview with Marvin Jensen, November 26, 2002.

¹²⁷ Author interview with Mary Martin, March 29, 2002, Disc 1. The rangers, both seasonal, were Nate Card and Brian Willbond. Burk, *Mojave National Preserve* Appendix B: Mojave National Preserve Employees, 23.

¹²⁸ Author interview with Mary Martin, March 29, 2002, Disc 1.

¹²⁹ Author interview with Mary Martin, March 29, 2002, Disc 1; Author interview with Dave Paulissen, Barstow, CA, March 27, 2002.

“[T]he best thing the Park Service could have done was just send out an *administrative* SET team, have someone deal with the administrative stuff, and have us just get out and meet people and say ‘hi, we’re here,’ and have a cup of coffee with them... You know, listen to them.”¹³⁰

Despite the hardships, staff made important decisions. Frank Buono led the effort to convert BLM rights-of-way to NPS standards, a time-consuming administrative task. In some cases, companies tried to take advantage of the change of leadership. Molycorp, a rare earth minerals mine on the boundary of the Preserve, wanted to replace a portion of its freshwater pipeline, which ran within a right-of-way on NPS land. The company asserted that the NPS had no authority over its activities in the right-of-way, and refused to submit an Environmental Assessment for the replacement project. The Preserve made it clear to the mining company that no work could be performed without an environmental assessment. Under heavy pressure, Molycorp admitted the right of the park to regulate rights-of-way on NPS land, and submitted an EA for the project in late 1994, which was approved the following month.¹³¹

This period in the BLM offices in Barstow also saw the groundwork laid for a number of important projects that later came to fruition. In April 1995, Martin spoke at the Death Valley Natural History Association meeting and successfully persuaded the group to become the cooperating association of Mojave National Preserve, in addition to Death Valley National Park. The association formally voted in early June to finalize the agreement.¹³²

Mojave staff worked to find and equip a more permanent headquarters site in Barstow. Co-location with BLM staff was a positive initial step recommended by the Transition Action Plan developed before the passage of the CDPA, but the reality of the situation was that the BLM simply did not have enough space to share.¹³³ The Mercado Mall, along Barstow’s Main Street,

¹³⁰ Author interview with Mary Martin, March 29, 2002, Disc 1.

¹³¹ Author interview with Marvin Jensen, November 26, 2002; “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 3; Burk, *Mojave National Preserve*, 13.

¹³² “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 15-16.

¹³³ “Task Directive, California Desert Protection Act, BLM/NPS Transition Action Plan, July 1994,” tab “NPS/BLM Transition Report” in CDPA Activation Binder, Superintendent’s Office, Mojave National Preserve Headquarters, Barstow CA, 13.

stood more than half empty and could meet the anticipated space needs of Mojave headquarters. The Park Service leased six suites for a total of \$120,000 per year. An open house and reception were held on May 22, 1995 to mark the formal opening of the facility.¹³⁴ The small first year budget for the park allocated no funds to furnish the space, so several employees, including David Moore and Gordon Reetz, the newly-hired members of the planning team who arrived May 15, 1995, scrounged furniture, computers, vehicles, law enforcement gear, and other supplies from government surplus warehouses in the area. Moore recalled one furniture hunting trip, where he felt “very self-conscious” arriving in front of Lake Mead NRA headquarters in a yellow Ryder truck only two months after the Oklahoma City bombing. Marv Jensen and Martin resurfaced and finished a wooden conference table, found in a surplus yard, for the new Mojave headquarters.¹³⁵

As the headquarters took shape, additional staff fleshed out the Preserve’s administrative structure. Marcia Schramm arrived to take charge of Mojave’s human resources needs in July 1995, as her husband Dennis Schramm took the helm of the planning program. Doug Scovill, Chief Archaeologist in the Washington D.C. office, wanted to finish his career in the field. In March 1995 he planned to transfer to Mojave as the head of cultural resources, but work in Washington delayed his arrival until August 6.¹³⁶ Dave Paulissen, the park’s first Administrative Officer, transferred to the Preserve in June 1995, but some administration functions were handled by Lake Mead staff through the end of the year. The park’s staff grew rapidly, in line with growth expectations voiced as early as 1993 in preliminary planning documents. Many members of the expanding staff were higher-level employees, hired with the expectation that rapid staff growth would soon fill in lower-level positions.¹³⁷ The limited budget and rapid staff growth exacerbated office administration. Paulissen remembered that even basic equipment was difficult to procure:

¹³⁴ Burk, *Mojave National Preserve*, 15.

¹³⁵ Author interview with David Moore, Barstow, CA, March 26, 2002, Disc 2. This table is currently in the library room at park headquarters.

¹³⁶ Author interview with Doug Scovill, via telephone, December 3, 2002.

¹³⁷ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 2-3.

“One of the biggest things that we were all proud of is that we were able to get a stapler for [Doug Scovill]. He didn’t have a stapler, and he was always asking for a stapler. Finally somebody found a stapler somewhere and we made a big production - we presented him with the stapler.”¹³⁸

A flurry of permit applications for various mining operations proved to be an early headache. James Wood of the Park Service’s Geologic Resources Division spent almost three months with the Preserve helping with the workload, but Bueno and Martin also shouldered much of the burden. Temporary permits to continue operations until the end of calendar 1995 were issued to nine active operations. Mojave received four plans for new mining operations in the park, but only one, a gravel pit for the 7IL Ranch, received approval. The most controversial rejected proposal came from Pluess-Stauffer, a Swiss company that sought a huge open pit calcium carbonate mine in the New York Mountains. Pluess-Stauffer claimed that the low economic value of the deposit made open-pit mining the only economical method of extraction, but Superintendent Jensen rejected the plan because of the impacts that an open pit would have on the park.¹³⁹

Early cultural resources efforts were assigned to staff of the Pacific Great Basin Support Services Office and the Denver Service Center or handled by Lake Mead National Recreation Area staff. Much of this early effort was directed at the Kelso Depot, including the preparation of a Historic Structures Report of the railroad building by NPS historian Gordon Chappell, Bob Carper, and others. Lake Mead staff conducted some early mapping around Kelso and also coordinated archaeological compliance for two ranching waterline projects.¹⁴⁰ When Doug Scovill arrived in August 1995, the park benefited enormously. Scovill monitored cultural resource and desert tortoise compliance procedures, set up the first database of archaeological information for the park, and participated in several interagency cultural resources efforts,

¹³⁸ Author interview with Dave Paulissen, March 27, 2002.

¹³⁹ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 3; Author interview with Mary Martin, March 29, 2002, Disc 1; Author interview with Marvin Jensen, November 26, 2002; Burk, *Mojave National Preserve*, 14.

¹⁴⁰ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 3-4.

including setting up a common database standard so that cultural resource data from across the California desert could be entered in the state's database as it was collected.¹⁴¹

Mojave National Preserve soon acquired its first interpretive employee. Kirsten Talken was reassigned from the Washington office as Mojave's first permanent interpretive ranger in May 1995. Talken helped develop and direct early interpretive programs, which included school presentations, community outreach, and visitor contact centers at Hole-in-the-Wall and Baker. Interpretive resources developed by other nearby NPS units proved easily adaptable, and helped the Preserve get high-quality interpretive programs underway quickly.

In August 1995, the park unofficially opened the Mojave Desert Information Center, at the base of the World's Tallest Thermometer in Baker, California. A formal opening ceremony took place the following month. Talken can be credited with much of the work necessary to bring the center to fruition. At the Baker facility, Talken and a cadre of seasonal employees sold materials provided by the Death Valley Natural History Association, and handed out information to passing tourists. Low initial visitor numbers were attributed to lack of highway signage.¹⁴² Baker, a town of less than one thousand residents astride I-15 and Kelbaker Road, the most important road into the Preserve, coveted the center. Some early planning for the Preserve considered Baker the best location for park headquarters, but the hamlet lacked sufficient infrastructure to serve the Park Service's needs.¹⁴³ Once it became clear that Baker would not be chosen for headquarters, members of the local growth coalition, including Willis Herron, owner of the Bun Boy restaurant and the driving force behind the construction of the Tallest Thermometer, actively sought location of a park facility in the town. In addition to the visitor facility, the Park Service acquired the former California Department of Transportation (CalTrans) housing compound in Baker in August 1995. This facility, consisting of five mobile

¹⁴¹ Author interview with Doug Scovill, December 3, 2002.

¹⁴² "Draft Superintendent's Annual Narrative Report for Fiscal Year 1995," 14-16.

¹⁴³ California Desert Transition Work Group, "The California Desert in Transition: The Opportunity for Bioregional Management," October 1993, in CDPA Activation binder, Superintendent's Office, MOJA HQ; Author interview with Mary Martin, March 29, 2002, Disc 1.

homes and several other structures, allowed the park to house interpretive and ranger staff closer to the Preserve itself and centralize its maintenance and supply operations. CalTrans donated the buildings to the NPS, and BLM developed a Memorandum of Understanding (MOU) which allowed the Preserve to keep the structures in their current location on BLM land. Talken and Ranger Brian Willbond set up the first Baker park office in one of the CalTrans trailers. The park also leased a mobile home in Kelso from the Union Pacific Railroad to house a law enforcement ranger at that location.¹⁴⁴

Protection of the Preserve from fire was a top priority of the Park Service. Because the Preserve's size and isolation, the Park Service could not rely on mutual-aid response by other agencies to reach emergencies in time. The park received \$68,000 in special funding, directed through the fire management program at Joshua Tree National Park, to set up basic fire protection. NPS negotiated an agreement with the BLM to jointly staff and operate the BLM's existing fire station at Hole-in-the-Wall. Ken Smihula and James Argon, BLM fire employees at Hole-in-the-Wall, worked very closely with NPS personnel to set up the joint fire program. Mary Martin led the effort to "figure out how to buy a fire truck," and the new heavy wildland apparatus was in service before 1995 ended.¹⁴⁵

The Preserve received an additional \$10,000 in special funds to set up a fee collection system at the park's two developed campgrounds. The park installed drop boxes for fee envelopes, and purchased cash registers and safes for the money. The initial fees were reasonable - ten dollars per night at Hole-in-the-Wall, and half that amount at Mid Hills - and the park collected \$440.50 during September 1995, the first full month of operation.¹⁴⁶

¹⁴⁴ Willis Herron, "National Parks and Preserve and Visitor's Center," May 31, 1995, in Mojave National Preserve Clip File 1995; "Draft Superintendent's Annual Narrative Report for Fiscal Year 1995," 11; Mary Martin, comments on first draft, July 2002, copy in possession of author; David Moore, comments on first draft, July 2002, copy in possession of author.

¹⁴⁵ "Draft Superintendent's Annual Narrative Report for Fiscal Year 1995," 10; Author interview with Sean McGuinness, December 4, 2002; Author interview with Mary Martin, March 29, 2002, Disc 1.

¹⁴⁶ "Draft Superintendent's Annual Narrative Report for Fiscal Year 1995," 13; for context on the fee collection issue on public lands, see Hal Clifford, "Land of the Fee," *High Country News* February 14, 2000.

At the end of the first fiscal year of operation, Mojave National Preserve consisted of eleven full time employees, three members of the planning team, and seasonal workers. The park could not afford maintenance staff; salaried staff had to perform basic maintenance, such as collecting trash in campgrounds, and more complex tasks were contracted to other entities. A glance at the organizational chart revealed a top-heavy administrative structure that was primed for expansion. The following year staff expected to double the final operations budget for FY95, which was only \$660,000 transferred from other accounts and special authorizations.¹⁴⁷ Rather than the rapid expansion and easy growth envisioned by some Park Service personnel, the following year saw Mojave at the center of an ugly political brawl, fighting for its continued existence as a National Park Service unit.

The Dollar Budget

More than any other single factor aside from the California Desert Protection Act itself, the so-called “Dollar Budget” crisis of fiscal year 1996 indelibly changed the institutional culture of Mojave National Preserve. At the heart of the conflict was an ideologically and economically based fundamental disagreement over the best use of the land of the eastern Mojave. Generally, those who opposed the California Desert Protection Act were in favor of the Dollar Budget. They sought to return the park to BLM control, or at the very least to require the NPS to manage the park for multiple use in the spirit of the BLM mandate. This perspective most often focused on fewer restrictions for off-highway vehicles, mining, and ranching. Anti-park forces suggested that the National Park Service managed its holdings too intrusively, in the process trampling the rights of users of the area.

The issue that upset anti-park forces most was the creation of wilderness by the California Desert Protection Act. Four-wheel-drive vehicle users had long used their machines to explore the desert, following mining roads and jeep trails to obscure sites. One practical reason for the development of a vehicle-based exploration pattern was the lack of water in the area - a hiker cannot carry enough water for a major cross-country hike, but a vehicle can carry all that is

¹⁴⁷ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 10

needed. Wilderness designation precluded the use of motorized or mechanized vehicles, prohibiting the unfettered access to which some users had grown accustomed. In most cases, the wilderness boundaries in the Mojave were drawn with “cherry stems,” non-wilderness access corridors to provide vehicular access into wilderness areas. Despite these concessions to access, wilderness designation for Mojave lands was heavily criticized by anti-park forces. Opponents often framed the issue as a question of the “public's” right to access “public” lands. In their formulation, the Wilderness Act, the CDPA, and even FLPMA “locked up” the public lands, prohibiting use by all but a small elite of healthy backpackers and environmentalists. Most also asserted that the wilderness areas set aside by Congress in the CDPA did not qualify as wilderness. The Wilderness Act of 1964 calls for areas to be roadless and free of human influence, but the Mojave lands were crisscrossed by paths, trails, routes, and even bladed roads, and contained range structures and sites of mining activity. As a result, wilderness designation closed some roads in the desert. Some opponents initially feared that all roads were closed, although the actual mileage figure remained small. Nonetheless, the closure of even a small portion of a road affects the other parts if no detour is available, and anti-wilderness advocates seized upon this issue. In some cases, these closures effectively cut off trails which volunteers had established with invested time and money, leaving them angry and upset over not being consulted. In other cases, the closures made it difficult for ranchers and wildlife enthusiasts to access and maintain water improvements. Locals also blamed the Park Service for the closures and demanded NPS action to reopen the areas, unaware that both the closures and any future boundary changes were the responsibility of Congress.

Initial actions of the Park Service did little to allay fears of residents. The initial law enforcement SET team moved quickly to secure park resources, but alienated many residents with what locals perceived as a heavy-handed style. The placement of signs prohibiting commercial traffic through the park was perceived by hypersensitive locals as a land grab, and a move intended to force them out of the park. Prohibition of driving in desert washes seemed a clear case of environmental overzealousness to residents accustomed to the practice. The closure of wilderness was one of the thorniest issues, but due to a lack of staff and good wilderness

boundary maps, misinformation was rampant. In short, local residents were extraordinarily angry, and the few Mojave staffers were focused on the process of starting a park, not on community relations.

NPS employees also had reason to fear local backlash. Anti-federal rhetoric escalated steadily throughout the early 1990s, spurred particularly by the Federal Bureau of Investigation raids on Idaho separatist Randy Weaver in 1992 and the Branch Davidians at Waco in 1993. In October 1993, a bomb tossed on the roof of the BLM state offices in Reno caused over \$100,000 worth of damage. A Forest Service office in Carson City, Nevada was partially destroyed by a bomb on March 30, 1995, after a vault toilet at a Forest Service campground near Elko was bombed the previous day. The bombings reached a new level on April 19, 1995, when 168 men, women, and children were killed in the truckbombing of the Oklahoma City federal building. Regional tension reached a fever pitch in Carson City in August 1995, when the same Forest Service employee whose office was bombed saw his van destroyed by a bomb blast outside his home, which shattered windows in his house and terrified his wife and two daughters inside.¹⁴⁸ When homes and vehicles of NPS employees were vandalized in Barstow, the Park Service was justifiably concerned that it might be part of the anti-federal backlash trend. Jensen's car and home were tagged with graffiti, and Martin's home was burglarized twice. At first, employees were concerned that the Park Service was being targeted. Jensen later came to a different conclusion:

The more we looked into it, other houses in our vicinity had gotten hit also. We finally deduced it had nothing to do with the Preserve ... it was gang type stuff.¹⁴⁹

Threats to Preserve employees passed, but political opposition to the park remained high. Congressman Jerry Lewis represented the area covered by the Preserve. He fought ardently

¹⁴⁸ "Office Bombed in Nevada," *High Country News* November 15, 1993; Jon Christensen, "Forest Service Bombed in Nevada," *High Country News* April 17, 1995; Scott Sonner, "Memo: Forestry Workers Fear For Their Safety," *Las Vegas Sun* November 17, 1999; Sandra Chereb, "Bombing Inquiry Frustrates Ranger," *Las Vegas Review Journal* May 11, 2000.

¹⁴⁹ Author interview with Marvin Jensen, November 26, 2002.

against the passage of the CDPA, and was instrumental in changing the CDPA to reduce the status of Mojave from a “park” to a “preserve.” Once the CDPA bill became law, he worked vigorously to stymie the Park Service at Mojave. In April 1995, Lewis succeeded in blocking the transfer of \$312,000 from BLM budgets that had been used to run the EMNSA, leaving the park with a total budget of \$660,000 for the 1995 fiscal year.¹⁵⁰

The accidental death of thirty eight bighorn sheep provided a catalyst for further anti-park action. On August 25, 1995, California Department of Fish & Game received radio collar transmissions indicating that several dead sheep were in the Old Dad Mountains. Investigation revealed that thirteen sheep had fallen into the water tank of a wildlife guzzler, drowned, and poisoned the water with botulism, which killed another twenty five sheep who drank the infected liquid. Accounts differ as to how the sheep ended up in the water in the first place: some reports say that the sheep jumped onto a brittle fiberglass tank, which broke through, others suggest that the sheep accidentally kicked open an access door on the top of the tank and drowned while trying to get a drink. The California Department of Fish & Game blamed the Park Service for not allowing them helicopter access to a wilderness area to conduct radio capturing. Jensen countered with the assertion that the walk from the nearest cherry stem road was only approximately a mile and a half, certainly a manageable distance. CDF&G claimed that it would have discovered the problem with the tank if it had been permitted access to the site. Either way, the incident was accidental, but anti-park forces, including Lewis, seized on the drownings as proof that the Park Service was not capable of managing the Mojave. Lewis even called for a federal investigation of the event. “The tragedy was very real, but that which occurred as a result of mismanagement has given us an opportunity in the House and we’re trying to take advantage of it,” noted Lewis in a speech to supporters.¹⁵¹

¹⁵⁰ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 10; Frank Clifford, “Desert Funding Stalled,” *Las Vegas Review-Journal* May 29, 1995; “Desert Funds May Be A Mirage,” *Los Angeles Times* May 28, 1995.

¹⁵¹ “Speech By Congressman Jerry Lewis, Goffs California, 17 February 1996,” *Baker Valley News* March 15, 1996; Author interview with Marvin Jensen, November 26, 2002; Author interview with Mary Martin, March 29, 2002, Disc 1; David Drudge, “Lewis Uses Sheep Incident to Blast Desert Management,” *Desert Dispatch* April 3, 1997; Robert S. Campbell,

Bill and Nita Claypool, longtime residents of Needles and staunch park opponents, suggested to Lewis that the Preserve should be given a budget of one dollar, with the rest of the money going to the Bureau of Land Management for administration of the area.¹⁵² Lewis, a member of the House Appropriations Committee, inserted language to that effect in the House Appropriations Bill in June. His task was easy; the House was under control of Rep. Newt Gingrich and other conservative Republicans who were swept to power in the 1994 elections, and the leadership favored anti-environment proposals. The Appropriations Bill was passed by the House with several anti-environment riders, including Lewis's Dollar Budget for Mojave National Preserve. The Park Service and park staff did not regard the threat with genuine gravity. The Senate passed a version with park funding intact, and the presumption was widespread that the conference committee would maintain the park's funding when it met in September to determine the final bill. With the super-conservative first-year Representatives leading the charge, more moderate Senate Republicans followed the conservative revival that seemed to be sweeping the nation. Lewis, one of the longest-serving Republican congressmen, applied political muscle to Republican members of the committee to retain his Dollar Budget provision, which proved easy given the anti-environment sentiments of conservative leadership. The appropriations bill passed out of conference on September 19, 1995, granting the Park Service one dollar to administer Mojave National Preserve.

The action was a major shock to Preserve employees. Superintendent Jensen immediately flew to Washington D.C., to see what could be done to mitigate the impacts of the budget. Deputy Superintendent Martin, acting on a "gut feeling," called in a Critical Incident Stress Team from Washington D.C., to help Mojave employees cope with the blow. The team stayed for three days, helping staffers find jobs at other parks and deal with the confusion and trauma. The Dollar Budget added tremendous uncertainty to the already fluid situation surrounding the

"Bighorn Sheep," *Baker Valley News* July 19, 1996. "Guzzlers" are water collection devices that have been constructed in the desert to provide water for wildlife, usually game species. A guzzler consists of an asphalt or concrete slab that catches rainwater, which drains to a storage tank and is piped from there to a drinking trough for the animals' use.

¹⁵² Author interview with Dennis Schramm, Barstow, CA, March 26, 2002, Disc 1.

start of the new park. Dave Paulissen signed papers for a new house the day before the Dollar Budget passed out of committee. In the wake of the cut, he had to buy his way out of the contract. All employees received a letter, informing them that they needed to look for jobs at other parks. Adding insult to injury, the initial round of public scoping meetings for the planning process took place that week, and park employees had to endure the abuse of many members of the public, most of whom were upset about the same access and control issues that motivated Lewis.¹⁵³

Scathing editorials in major urban newspapers labeled Lewis's move a "guerrilla campaign," "pure political mischief," and a "personal vendetta fought in the name of miners, ranchers, hunters, and four-wheel drive enthusiasts." Others reminded President Bill Clinton, in California for a fundraiser, that Californians were very much in favor of the Desert Protection Act, and suggested that "signing the bill would not earn much credit in a state that has 54 electoral votes." Later that day, the White House declared that Clinton would veto the bill when it reached his desk, citing the Mojave cut as one of six specific examples of measures intended to cause environmental havoc that were contained in the bill. A continuing resolution, authorizing expenditures based on the previous year's budget, kept the park and other government offices open, but that measure expired in mid-November. Congress passed another continuing resolution as a stopgap measure, but attached the full text of the disputed budget bill as a rider. Clinton vetoed the continuing resolution, and the government entered a six-day shutdown on November 14, 1995.¹⁵⁴

¹⁵³ Author interview with Mary Martin, March 29, 2002, Disc 1; Author interview with Dave Paulissen, March 27, 2002; Author interview with Dennis Schramm, March 26, 2002, Disc 1.

¹⁵⁴ "Veto the Environmental[sic] Wrecking Legislation," *San Francisco Chronicle* Sept. 21, 1995; Carolyn Lochhead, "Panel Strips Mojave Preserve of Funds," *San Francisco Chronicle* Sept. 22, 1995; "Desert Mischief," *San Diego Union-Tribune* Sept. 22, 1995; "Clinton Should Reject Sabotage of Desert Act," *Los Angeles Times* Sept. 22, 1995; Press Release, "Statement of the Vice President," Office of the Press Secretary, The White House, Sept. 22, 1995; "Resignation Settles In As Clock Winds Down," *USA Today*, November 13, 1995.

At that point, it was clear to everyone at Mojave that the park's future might not be promising. Superintendent Jensen and the rest of the staff scaled back operations. Jensen described the employee meeting where he told the staff that some people would have to leave:

“We decided that we had to pull some of the staff back out. And I am sitting around the table there in our offices in the Mercado Mall and there are people there with tears in their eyes. ... it was a real emotional bombshell.”¹⁵⁵

Seasonal employees were among the first to be reassigned, most leaving in November 1995. The visitor's center at Hole-in-the-Wall was closed, and interpreter Ruby Newton was moved to park headquarters to provide administrative support. Half of the space at Mercado Mall leased by NPS was abandoned, with the help of a farsighted clause in the terms of the rental lease. The same month, Chief Ranger Bill Blake and his wife Bettie, administrative assistant for the Preserve, volunteered to transfer, in part as a result of family issues and the fact that Blake's old position at New River Gorge NRA was available. Jensen prepared a reorganization plan that cut back the top-heavy structure of Mojave's administration.

“I just felt that we'd be better off shrinking the superintendent's office and pulling what money we could get in the next couple / three years, and putting it in field staff. So I made the decision that I would move on, leave Mary as the superintendent, and that we would move Frank as well.”¹⁵⁶

The plan called for Jensen himself to transfer to Yellowstone, and for assistant superintendent Frank Buono to go to Death Valley. Deputy Superintendent Mary Martin would lead the park, effective December 10, 1995. The last ranger left the same day.¹⁵⁷ Doug Scovill was temporarily reassigned to Death Valley National Park, but was able to continue his work at the Preserve:

“[T]hey were just going to keep a skeleton's crew on ... and I was transferred to Death Valley. And the superintendent of Death Valley just so happened to be by

¹⁵⁵ Author interview with Marvin Jensen, November 26, 2002.

¹⁵⁶ Author interview with Marvin Jensen, November 26, 2002.

¹⁵⁷ Clyde Weiss, “Budget Crisis Squeezes Staff From New Park,” *Las Vegas Review-Journal* November 30, 1995; Burk, *Mojave National Preserve*, 23; Author interview with Mary Martin, March 29, 2002, Disc 1; Author interview with Dennis Schramm, March 26, 2002, Disc 1.

coincidence the husband of the superintendent of Mojave, Mary Martin. ... I called Dick [Martin] up and I said 'Dick, what do you want me to do for you?' and he says, 'talk to my wife.' I stayed at Mojave and continued my work as a cultural resource specialist."¹⁵⁸

Despite the stress of the Dollar Budget crisis, managers and employees tried to maintain the camaraderie that had formed among members of the small staff in the park's infancy. When it became clear that much of the staff would have to leave, Superintendent Jensen organized an all-employee four-wheel drive trip and campout in the Preserve. Park staffers and their families enjoyed the weekend, despite the sense of looming change.¹⁵⁹

Meanwhile, the battle between the Republican-controlled Congress and the Democratic White House continued to rage. The six-day shutdown of federal offices was lifted on November 20, when Clinton signed a continuing resolution that expired December 15, with the hope that the budgetary battles could be solved by that time. The Interior spending bill passed by Congress for Clinton's signature in December still called for a variety of environmentally destructive measures. In the final December bill, BLM was still allocated \$600,000 to manage the Preserve, but the Park Service was given \$1.1 million as well, plus \$500,000 for planning. This amount was less than the \$2.7 million requested by Clinton, but more than Lewis's original dollar budget. Language in the bill required the Park Service to manage the Preserve under the BLM's multiple-use regulations until a long-term management plan was completed. Additionally, that management plan had to be approved by the Appropriations Committees of the House and Senate before the Preserve would receive any more funding. Lewis, by virtue of his Appropriations Committee seat, would get to reject the plan and any funding for the Preserve until the Park Service agreed to his demands. The continuing resolution expired, and the government shut down again, sending NPS employees home nationwide. Frank Wheat, a Sierra Club activist who was instrumental in the passage of the CDPA, personally talked to White House Chief of Staff Leon Panetta to ensure that Clinton fully backed Mojave National Preserve.

¹⁵⁸ Author interview with Doug Scovill, December 3, 2002.

¹⁵⁹ Author interview with David Moore, March 26, 2002, Disc 2.

On the basis of the Mojave issue and many others, Clinton vetoed the bill the following Monday, December 18.¹⁶⁰

This second shutdown lasted for three weeks, including Christmas and New Year's. No park staff was on duty, but some visitors were camped at Mid Hills and Hole-in-the-Wall. Martin and her daughter and Gordon Reetz and his wife traveled to the Preserve at various times during the shutdown and emptied the trash.¹⁶¹ Dennis and Marcia Schramm used the break to travel to several other parks on their own, looking for a dual transfer. The funding uncertainty weighed heavily on their family; Dennis's position was funded with planning money, which was not part of the funding struggle, but after the plan was done he would join Marcia as part of the regular staff. At Grand Canyon National Park, they found two suitable positions. Back in California, Dennis Schramm talked to Martin and presented his family's dilemma:

"I said, 'we need to make a decision - we want to buy a house, so we need to know whether or not we're going to have jobs here in the future or not.' And she said 'go buy a house.' So... we went out over Christmas that year and bought a house. It was a pretty traumatic time."¹⁶²

On January 6, 1996, Clinton and Congress passed a continuing resolution to allow the Park Service to resume work while the two sides hammered out a budget agreement. Until the final budget was passed in April 1996, the Preserve operated under a series of continuing agreements, all of which essentially carried the previous year's funding level forward, which prevented the skeleton crew at Mojave from expanding. After Clinton's December veto, Lewis floated a proposal to turn the Preserve over to the BLM and charge an entrance fee, but that plan did not make it into the next bill sent to the President.¹⁶³

¹⁶⁰ "'Kind of Like Chaos' as Backlogs Hit," *USA Today* November 20, 1995; Deborah Brown, "Mojave Bill Faces Veto," *Hi-Desert Star* December 17, 1995; "Starved for Funds," *San Diego Union-Tribune* December 3, 1995; "Second Shutdown Will Have Limited Effect," *USA Today* December 15, 1995; "Clinton Vetoes 2 Spending Bills, Ready to Reject 3rd," *USA Today* December 18, 1995; Mary Martin, comment on first draft, July 2002, copy in possession of author.

¹⁶¹ Wheat, 300; David Moore, comment on first draft, July 2002, copy in possession of author.

¹⁶² Author interview with Dennis Schramm, March 26, 2002, Disc 1.

Angry over urban media portrayals of Jerry Lewis as out-of-touch with his constituents and pursuing an illogical vendetta out of personal spite, a group of anti-park activists held a “Support Lewis Rally” on February 17, 1996. The East Mojave Property Owner’s Association officially sponsored the barbecue and rally hosted by Dennis Casebier at the Goffs Schoolhouse property. One pro-Lewis source reported more than 700 people in attendance. Congressman Lewis and other dignitaries gave speeches, shook hands, and socialized. Characterized as a great success by pro-Lewis forces, the rally was dismissed by the National Parks Conservation Association as being “organized by a small group of opponents of the park who are trying to undermine the Park Service’s efforts with distortions and misrepresentations.”¹⁶⁴

The terms of the fight had changed since the passage of the California Desert Protection Act, and the Clinton administration took an active role to protect the Preserve. Clinton’s heavy use of the veto and willingness to let the Republicans shut down the government to avoid compromising the environment was a very different approach from the CDPA passage effort, where the White House maintained a friendly but clearly hands-off stance. As negotiations between Congressional leaders and the White House continued into April, the ultimate status of Mojave National Preserve was one of the final points of contention. The GOP-backed bill provided \$1.1 million in funding for the Preserve, but required that it be managed according to BLM multiple-use guidelines. Lewis vowed to fight to the end for the provision, but Republican leaders Newt Gingrich and Dick Armey indicated that they might have to compromise on the Mojave issue to get the bill past a threatened veto.¹⁶⁵

¹⁶³ “Public Sighs Relief as Washington Museums Reopen,” *USA Today* January 6, 1996; “Clinton signs bill to avert shutdown,” *USA Today* March 15, 1996; “House Passes Another Stopgap Spending Bill,” *USA Today* March 20, 1996; Clyde Weiss, “New Plan Aimed at Desert Park,” *Las Vegas Review-Journal*, January 17, 1996.

¹⁶⁴ Letter from John Brown, East Mojave Property Owner’s Association, to Property Owners, February 5, 1996; Memo from Dennis G. Casebier to Friends of the Mojave Road, February 8, 1996; National Parks and Conservation Association Press Release, “Mojave National Preserve Suffers Latest Assault,” February 17, 1996; Lois Clark, “Jerry Lewis, Guest of Honor at Desert B-B-Q,” *Baker Valley News* March 15, 1996.

¹⁶⁵ “White House, Congress near Deal on Huge Spending Bill,” *USA Today* April 23, 1996; Jim Specht, “Mojave at Center of Democrat-GOP Fight,” *San Bernardino County Sun* April 24, 1996.

That compromise on the part of the Republicans did ultimately become necessary. Rather than delete the “multiple use management” and “Congressional approval of the management plan” provisions entirely, a new codicil was added to the bill, allowing President Clinton to waive the first two requirements. With that safeguard and other anti-environment measures deleted or neutralized, Clinton signed the final Interior appropriations bill into law on April 25, 1996, and promptly exempted Mojave from the odious directives. Mojave National Preserve received a \$1.1 million budget and with it, a measure of stability for the first time in months.¹⁶⁶

The era of the Dollar Budget came to an emphatic end in early June 1996, when Lewis publicly announced that he would not renew his funding attacks on the Preserve. His new stance was likely made necessary by the Republicans’ failure to control the budget outcome, but it may have also been a positive response to increased NPS community relations efforts. Although he was still opposed to the park, Lewis’s moderated stance toward park management removed much of the threat from the rhetoric of anti-park activists, and enabled staff to focus once again on park concerns.¹⁶⁷

The Dollar Budget Days were a crucial formative moment in the short history of Mojave. The incident decimated staff levels, and created a survivor’s “esprit de corp” among those who remained. The emotional response of those park staffers interviewed about the subject, almost seven years later, was intense. Several choked back tears. Subsequent staff heard about the event, and as time passed, the details became fuzzy and the episode passed into lore. The event remains a vivid illustration of the force of local resistance combined with access to political power.

It would not be inaccurate to describe the Park Service as having “won” the Dollar Budget battle, but that simple analysis obscures some of the lessons of the experience. The most crucial factor in the Preserve’s survival was Park Service efforts to improve community relations.

¹⁶⁶ “Budget Highlights,” *USA Today* April 25, 1996; “Education, Environment Cuts Gentler than GOP’s First Plan,” *USA Today* April 25, 1996; Chuck Mueller, “Mojave Balancing Act: Increased Tourism, Conservation,” *San Bernardino County Sun* April 28, 1996.

¹⁶⁷ “Congressman Won’t Battle Over Preserve,” *Las Vegas Sun* June 7, 1996.

Accidentally or otherwise, some stridently pro-regulation park employees left Mojave during the crisis. Those who remained, especially Superintendent Mary Martin, emphasized public relations as a way to defuse some of the tension and ease the integration of the Park Service into the eastern Mojave desert. Education of park opponents, especially through public meetings in the planning process and through personal meetings with individuals, reaped tremendous rewards. By showing that the Park Service was receptive to the public's concerns, Mojave staff eliminated much of the perceived need for major management changes. The political climate also changed, leaving radical plans like Lewis' without support. After the Republican defeat in the budget battle with the Clinton White House, passage of "anti-environment" policies like Lewis' anti-park proposal became much less politically feasible. Bill Clinton's victory in the 1996 presidential election reaffirmed the popularity of his pro-environment stance with voters, and helped solidify the future existence of the park.

Survival of Mojave National Preserve as a national park unit should also be credited to a fortunate political alignment. President Clinton took a major stand in support of the environment, and was able to portray the Republican opposition as venal and petty. Public opinion was largely on Clinton's side, which made a definitive stand politically feasible. In the end, Republican negotiators were willing to concede ideological positions such as that of Lewis in exchange for larger budget cut concessions by Clinton.

After April 1996, Mojave National Preserve became a fixture in the desert. The effort to create a comprehensive long-term management plan was never entirely suspended during the crisis, but the planners were affected much like the rest of the staff. Once the long-term longevity of the park was assured, planning for the future seemed much less like the futile enterprise it once appeared to be. After the Dollar Budget Days passed, Mojave clearly had a future of some sort; it was up to the planning team to determine the shape of that future.

Five: PLANNING FOR MOJAVE'S FUTURE

One of the most substantial accomplishments in the short history of the Mojave National Preserve was the autumn 2001 completion of the first General Management Plan for the park. That document was the culmination of a planning process that began even before the area officially belonged to the National Park Service. The plan was produced by park-based planning staff, a rare circumstance that offered a new vision of the future of planning in the national parks. Most modern park planning, especially for General Management Plans, has been conducted by planning staff based in centralized NPS offices. Few modern parks constructed General Management Plans with park staff, largely because of the historical failure of such initiatives. Typically the funding and personnel intended for planning often ended up serving other interests, park staff often lacked the specialized expertise necessary for a plan, and in-house projects of this scale did not often reach completion in a timely fashion.

Mojave National Preserve became a significant exception to that formula. Its GMP was conceived in the crucible of bioregional ecosystem planning, carried through local opposition, the lean time of the Dollar Budget, and the growth that followed. Based in the precepts of national park management, the plan also reflected the particular and even peculiar situation of Mojave National Preserve. The advantage of an in-house GMP quickly became clear. Mojave NP faced different constraints than many of the more traditional units of the park system because of the compromises built into the mission of the park, and on-the-ground knowledge was crucial to negotiating the complicated circumstances of the eastern Mojave. In the end, Mojave planners successfully produced a workable General Management Plan, a document of tremendous importance to the future of the park. The planning process can also be read as a successful instance of park-based planning, and the experience of Mojave's planning team may be used to inform future NPS planning efforts.

After the passage of the California Desert Protection Act seemed inevitable, officials in the Bureau of Land Management and the National Park Service considered some of the potential opportunities for bioregional planning that would exist with such a land transfer. The California Desert was seen by many as an ideal candidate for ecosystem planning. Most of the area was already under the jurisdiction of the California Desert Plan, the earlier desert-wide management plan produced by BLM in 1980. More importantly, some bioregional planning was already underway in the Mojave. The desert and the rest of California were subjected to a 1991 federal and state interagency Memorandum of Understanding on Biodiversity, which “gave impetus to this idea of planning on a multi-ownership, multi-species level.”¹⁶⁸ This MOU was informed by multijurisdictional planning work in the western Mojave, which was part of the response by DOI and private landowners to the August 1989 emergency listing of the desert tortoise (*Gopherus agassizii*) as a threatened species under the Endangered Species Act. Some of the earliest studies of a potential transition of BLM land to NPS control assimilated the language and spirit of bioregional planning, which made sense in the context of the 1991 MOU. The area under consideration for transfer to the Park Service as a Mojave National Park was recognized in the enabling legislation as a juncture of different desert ecosystems found in Death Valley and Joshua Tree, a perfect opportunity for ecosystem planning on a large scale in conjunction with other Park Service units and the BLM.¹⁶⁹

A large-scale management plan to assist the recovery of the endangered desert tortoise further emphasized the need for regional planning on an ecological basis. In 1992, the Fish and Wildlife Service officially listed the desert tortoise as threatened, and in June 1994 completed the Desert Tortoise Recovery Plan (DTRP), which gave BLM and NPS additional impetus to work together on ecosystem planning. The Recovery Plan called for sweeping management changes on a large amount of public land, both inside and outside future Mojave National

¹⁶⁸ “Memorandum of Understanding: California’s Coordinated Regional Strategy to Conserve Biological Diversity,” September 19, 1991; Richard F. Johnson, “Human Uses and Impacts,” *Technical Reports: Proceedings of the East Mojave Desert Symposium* 10 (Nov. 1992): 110.

¹⁶⁹ See “California Desert Protection Act of 1994” PL 103-433 Sec. 501(1) for the wording as enacted in the final version.

Preserve boundaries.¹⁷⁰ The need of BLM and NPS to both closely follow the strictures of the Desert Tortoise Recovery Plan gave added justification to a joint planning process, as both agencies would require the same kinds of expensive experts and both would be facing similar problems.

Department of the Interior planners saw the transition of BLM-controlled lands in the Mojave to Park Service control as an ideal opportunity to plan broadly to increase efficiency and save money. In 1993, the Secretary of the Interior created the California Desert Transition Work Group to plan for the eventual transfer of portions of the desert to the National Park Service if the California Desert Protection Act was passed. The group had a two-part mission, to create a “seamless” transfer, and also to identify ways to save money in the process. The group also looked to take advantage of the National Performance Review, Vice President Al Gore’s “reinventing government” initiative, as an additional source of funds for the transition.¹⁷¹ The work group produced a document in October 1993 titled “The California Desert in Transition,” colloquially known as the “Yellow Book.” It created a framework for proceeding with a “bioregional management” strategy in planning for the area, and included cost estimates and potential savings for the transition and for the new parks, as well as recommendations for joint and individual agency action.¹⁷² The report was hailed by Secretary of the Interior Bruce Babbitt in his testimony before Congress on the California Desert Protection Act as an example of interagency cooperation and ecosystem planning.¹⁷³

¹⁷⁰ U.S. Fish and Wildlife Service, *Desert Tortoise (Mojave Population) Recovery Plan* (Portland, OR: Fish & Wildlife Service, 1994). For a discussion of the effect of the listing of the desert tortoise in the greater Mojave desert area, see Darlington, 222-234, 284-297; Hal K. Rothman, *Neon Metropolis: How Las Vegas Started the Twenty-First Century* (New York: Routledge, 2002), 226-231; for an insightful discussion of the Endangered Species Act, see Shannon C. Petersen, *Acting For Endangered Species: The Statutory Ark* (Lawrence, KS: University Press of Kansas, 2002).

¹⁷¹ California Desert Transition Work Group, “The California Desert in Transition: The Opportunity for Bioregional Management,” October 1993, in CDPA Activation binder, Superintendent’s Office, MOJA Headquarters, Barstow CA, 5-6.

¹⁷² “The California Desert in Transition,” 5-8.

¹⁷³ “Task Directive: California Desert Protection Act: Bureau of Land Management/National Park Service Transition Action Plan,” July 1994, 2.

In retrospect, the report was fatally flawed, because the unusual resources and challenges of the future park were not adequately acknowledged. “[T]hey really missed the mark [because] [t]hey looked at it from a traditional Park Service organization,” noted Superintendent Mary Martin.¹⁷⁴ The report did not adequately address the issues that made the Preserve unique, such as mining, rights of way, OHV use, and grazing.¹⁷⁵ In one glaring omission, the projected composition of park staff in the first full fiscal year included fifteen full time and eight temporary maintenance personnel, but not a single position dedicated to mining issues.¹⁷⁶ The “Yellow Book” also included just two Department of the Interior agencies, the Bureau of Land Management and the National Park Service. Later efforts in the bioregional planning process integrated the U.S. Fish and Wildlife Service into the discussion, as well as the Department of Defense, responsible for considerable acreage in the California desert set aside as training grounds.

The NPS portion of the joint team that produced the 1993 report was led by Dave Mihalic, and included among its members Frank Buono, then assigned to the Albright Training Center at Grand Canyon National Park.¹⁷⁷ After Babbitt’s approval of the “Yellow Book” report, Frank Buono was temporarily assigned to work with Alan O’Neill, Superintendent of Lake Mead National Recreation Area, on further plans for the transition. In July 1994, BLM and NPS jointly produced a task directive, called the “Transition Action Plan,” that listed the issues and tasks necessary to implement the CDPA. A total of twenty seven issues were identified in the report, many with multiple recommended actions. For each action, personnel from BLM and NPS were identified to lead the initiative. The innovative Alan O’Neill, who had already significantly improved Lake Mead National Recreation Area, shouldered much of this responsibility; Frank Buono also played a large role in implementation of the task directive. The

¹⁷⁴ Author interview with Mary Martin, March 29, 2002, Disc 2.

¹⁷⁵ Hunting as an issue is omitted here because the report assumed the creation of Mojave National Park, with hunting prohibited, was the likely outcome of the CDPA.

¹⁷⁶ “The California Desert in Transition,” 43-44.

¹⁷⁷ Author interview with Mary Martin, March 29, 2002, Disc 1; “Kennedy Names Buono to Assistant Superintendent Post,” *Mohave Valley Daily News*, Dec 7, 1994.

directive was more detailed and issue-oriented than the Transition Action Plan, and was intended as a supplement, rather than a replacement.¹⁷⁸

The Transition Action Plan contained the seeds of several initiatives that would become important in the GMP process for Mojave. It set up the Desert Managers' Group, the multi-agency management work group that supported Mojave personnel with planning and other expertise.¹⁷⁹ It also required Death Valley and Mojave to divide the Northern and Eastern Mojave Ecosystem Planning Units into areas of influence for planning purposes. These units, a product of the Desert Tortoise Recovery Plan, gave geographical definition and a name to the planning effort that would include Mojave National Preserve. The plan was for the Northern and Eastern Mojave, or NEMO - a nine-million-acre planning area.

Unlike the other areas created by the Desert Tortoise Recovery Plan, in which the vast majority of land was under the jurisdiction of the Bureau of Land Management, the National Park Service controlled more than half of the NEMO area in Death Valley National Park and Mojave National Preserve. As a result, Ed Haste, the California State BLM Director, asked the Park Service to lead the NEMO effort. The NPS agreed, and promised to fill three of the positions for the planning team, including the team leader. The BLM provided three more, and FWS one. Marvin Jensen and Ray Murray, Regional Chief of Planning and Partnership, lobbied aggressively to have the planning staff attached to Mojave National Preserve, instead of using planners contracted through a central office, and succeeded in having the planners assigned to the park.¹⁸⁰

The Park Service advertised for the position of planning team leader in March 1995, identifying Dennis Schramm, who was working in the Alaska Support Office, as an ideal candidate. Schramm was one half of a dual-career couple and turned down the transfer offer unless both he and Marcia, his wife, could be employed. The Park Service could not find

¹⁷⁸ "Transition Action Plan," 2.

¹⁷⁹ "Transition Action Plan," Issue 3, Action D.

¹⁸⁰ Author interview with Dennis Schramm, March 26, 2002, Disc 1; Author interview with Mary Martin, March 29, 2002, Disc 1.

positions for both Schramms until July 1995, but meanwhile hired the two other NPS members of the planning team. David Moore, a landscape architect at Sequoia / Kings Canyon National Park, filled the community planner position, and Gordon Reetz, from Chickasaw National Recreation Area, took on responsibility for natural resources planning. Both Reetz and Moore arrived at Mojave headquarters in mid-May 1995, and were instructed by Superintendent Jensen to become familiar with the land. Several field trips soon followed.¹⁸¹ The newly arrived members of the planning team also helped set up the new headquarters office at Mercado Mall. The structure of the building made it feasible to locate the planning team in a suite a few doors down from the rest of the park staff. Schramm later identified the semi-isolation as very helpful in keeping the planners on track and preventing them from becoming bogged down in day-to-day park business.¹⁸²

The new NEMO planning team met with the Desert Managers' Group, the Desert Tortoise planning management team, and NPS planners from the Denver office in early June 1995, in Barstow. The various parties discussed broadly how to approach the task of creating the NEMO plan, with the intent of formalizing the recommendations in a project agreement. Since none of the Mojave planning staff had worked on a general management plan before, they relied heavily on NPS experts to point them in the right direction. The team discussed “issue-driven” planning versus “goal-driven” planning, and decided that “goal-driven” planning might be a useful tool to defuse some of the intense issue-driven controversy surrounding the Preserve. Intense emotions about certain issues could hold back an issue-driven planning process, but a goal-driven approach would circumvent those issues to an extent and also provide more vision for future park planning.¹⁸³

The planning team decided to use the best available methods to collect public comments about the proposed plan. Everyone on the team was acutely sensitive to the hostility with which some members of the public regarded Mojave National Preserve and wilderness elements of the

¹⁸¹ Author interview with David Moore, March 26, 2002, Disc 1.

¹⁸² Author interview with David Moore, March 26, 2002, Disc 1; Author interview with Dennis Schramm, March 26, 2002, Disc 1.

¹⁸³ Author interview with David Moore, March 26, 2002, Disc 1.

California Desert Protection Act. “When I came to Mojave, people back at Sequoia were joking about needing to buy flak jackets and making sure I took the target off my back,” remembered David Moore.¹⁸⁴ The Forest Service and BLM in Las Vegas, Nevada had recently completed controversial management plans, and the NEMO team sought their expertise in handling public comment. On July 11-13, 1995, the planning team met to work out public comment options and discuss coordination with the Northern/Eastern Colorado and Western Mojave planning efforts. Forest Service and BLM Nevada personnel presented their experiences with different approaches to gathering public comment. Their technique, utilizing several roundtables where comments were collected rather than a single-public-microphone approach, increased numbers of comments and commentators and also defused some negativity. This method was employed by the planning team at all of the public scoping meetings for the NEMO plans, and worked very well.¹⁸⁵

The planners embarked on an ambitious set of scoping meetings, in an effort to receive suggestions to help shape the course of the management plans. In late July, the team held the first scoping meeting with BLM and NPS personnel from the desert, in order to understand management expectations for the plan.¹⁸⁶ One month later, in late August 1995, the planning team held the first of its public scoping meetings. Local, state, and federal officials and agencies were invited to the Mercado headquarters to talk to the planning team. David Moore remembers this meeting as having a “pretty good turnout” and being “very positive” in tone. The influential members of local communities present at the meeting were members of a traditional pro-tourism “growth coalition,” in favor of the park for the economic opportunity it created for their communities and for themselves.¹⁸⁷ It was important for the planning team to receive input from these local elites, as they had a keen understanding of the issues the park was likely to face in the

¹⁸⁴ Author interview with David Moore, March 26, 2002, Disc 1.

¹⁸⁵ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 7; Author interview with David Moore, March 26, 2002, Disc 1.

¹⁸⁶ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 8.

¹⁸⁷ Author interview with David Moore, March 26, 2002, Disc 1; Hal Rothman, *Devil’s Bargains: Tourism in the Twentieth Century American West* (Lawrence, KS: University Press of Kansas, 1998).

coming public meetings. It was also important to the park that the local leaders had an understanding of the planning process and their role in the future of the park.

The planning team prepared workshops to receive input from the general public, but the Dollar Budget crisis nearly brought a halt to the process. The NPS prepared a pamphlet that described the planning process and the public scoping meeting schedule, which the BLM mailed to everyone on its California Desert mailing list, some 6,000 people, on August 31, 1995. The team published the official notice of intent and EIS for the planning process in the Federal Register on September 5, 1995.¹⁸⁸ The initial public scoping meetings were scheduled for the week of September 21-27, but when the “Dollar Budget” appropriations bill passed out of the Conference Committee on September 19, Mojave National Preserve was in disarray. The management team discussed the possibility of canceling the meetings, because of the more than \$15,000 it would cost to hold the workshops. Superintendent Jensen, Superintendent Dick Martin of Death Valley, and Ray Murray, of the Pacific West Regional Office, decided that the meetings should be held as scheduled.¹⁸⁹

The NEMO team conducted the first wave of public scoping meetings in late September 1995. Two teams of employees headed the meetings. Alan Hagood of the Denver Service Center led those in the northern portion, while Dennis Schramm headed the southern meetings. The BLM Riverside district office helped with administrative support, such as communication with the media and sending letters to interested members of the public. Meetings were held in ten locations throughout the planning area.¹⁹⁰ Registration sheets recorded a total of 252 participants, but many more people attended who did not sign in.¹⁹¹

¹⁸⁸ Federal Register September 5, 1995, 46132.

¹⁸⁹ Author interview with Mary Martin, March 29, 2002, Disc 1; Author interview with Dennis Schramm, March 26, 2002, Disc 1.

¹⁹⁰ Meetings were held in Pasadena, San Bernardino, Barstow, Baker, Needles, Ridgecrest, Independence, Lone Pine, Furnace Creek, and Las Vegas. “Periodic Update on the Interagency Management Plan,” Issue 1, Winter 1995/96, 2.

¹⁹¹ “Draft Superintendent’s Annual Narrative Report for Fiscal Year 1995,” 8.

Peter Burk, President of the Citizens for Mojave National Park, wrote that all of the meetings saw a “majority of the people” supportive both of the Preserve and the planning process, but NPS officials remembered a more hostile reception; David Moore identified the Pasadena meeting as the only one where a majority of visitors were pro-NPS.¹⁹² Mary Martin described the situation at the meeting in Needles:

“The audience was just packed, there must have been eighty people there ... Plus there was this one woman, ... she was just screaming through the meeting. And people were really emotionally upset. They didn’t like the Park Service and they let us know. They let us know everything that they thought we did wrong, and we were listening.”¹⁹³

People opposed to the Mojave National Preserve often displayed cynicism. One local opponent weighed in on the planning process: “It is nice to know we are now a ‘bioregion’ - we used to be part of the United States,” the meetings: “a total waste of time and a waste of taxpayers money,” and multiagency planning: “Like tying [sic] the tails of three alley cats together and throwing them over a clothesline.”¹⁹⁴ The planning team structured its approach accordingly, placing an emphasis on listening and educating members of the public. Moore noted that the initial scoping meetings were about more than simply receiving public input. “In a sense,” he recalled, “we were like ambassadors.”¹⁹⁵

A typical planning meeting began with Dennis Schramm giving a brief overview of the planning process. The planners then broke into groups of one or two individuals, and staffed the “breakout” tables, each dedicated to a specific issue or theme. Each table had an easel with a large blank paper pad, upon which the planners or individual members of the public wrote or summarized their comments. Occasionally, the planners would also take notes as well. Most comments were summarized for brevity, but since they were recorded in the open, the person

¹⁹² Burk, *Mojave National Preserve*, 18; David Moore, comment on first draft, July 2002, copy in possession of author.

¹⁹³ Author interview with Mary Martin, March 29, 2002, Disc 1.

¹⁹⁴ Dennis Casebier, “Development of Yet Another Plan for Parts of the California Desert Begins,” *Baker Valley News*, October 20, 1995.

¹⁹⁵ Author interview with David Moore, March 26, 2002, Disc 1.

who commented enjoyed a reasonable degree of confidence that the remarks were not being misinterpreted. After the meeting, comments were entered into a computer database, printed according to topic, and circulated among members of the planning team.¹⁹⁶

The usefulness of the initial public input to the planning process was limited. “When we started holding public meetings, the first round people really just wanted to complain about the Act, ... so the actual scoping value of those meetings was minimal, in terms of new ideas or what issues should we address,” noted Dennis Schramm.¹⁹⁷ To the public, the process may have looked premeditated, though, because most of the negative public reaction had to do with topics that were not under the park’s control, such as wilderness boundary modifications and the complete elimination of grazing and hunting. Dennis Schramm observed another function of the first wave of planning meetings:

“We went out into those communities, we took the congressional wilderness maps, and when people would say ‘they closed off every road in the Preserve,’ we’d drag out the wilderness maps and say ‘which one are you concerned about?’ and they’d point it out and we’d go ‘that one’s still open.’ ... The rumor was that all the roads were closed. And the reality was that less than 15% were closed by wilderness. As people began to learn more and more about what the act did, ‘oh yeah, we can still use this, oh yeah, I can still hunt out here, oh yeah, there’s still mining out here,’ that started alleviating some of the concerns that people had had with it.”¹⁹⁸

Despite the public negativity, the first phase of public scoping meetings was considered a success. The planning team received public input, and the public had a good chance to air their concerns about the Preserve and the planning process. A larger threat to the park and the planning process loomed even as the first meetings were being conducted. Salaries of planning staff, unlike those for regular Mojave employees, theoretically were not in immediate danger from the Dollar Budget, because the planners were funded by special planning dollars unaffected

¹⁹⁶ Author interview with David Moore, March 26, 2002, Disc 1; Author conversation with David Moore, March 25-26, 2002, Mojave National Preserve headquarters, Barstow CA.

¹⁹⁷ Author interview with David Moore, March 26, 2002, Disc 1; Author interview with Dennis Schramm, March 26, 2002, Disc 1.

¹⁹⁸ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

by the cut. Nonetheless, the planning staff was definitely affected. Reetz, Moore, and Schramm had all been promised potential staff positions after the GMP was complete. Schramm explained how his salary was safe but his job was not: “my future was at Mojave, once the plan was done, because I was attached to the Mojave staff.”¹⁹⁹

In early 1996, the NEMO team created a fourteen-page newsletter to inform the public of the progress of the planning process. This “Periodic Update on the Interagency Management Plan #1,” issued in February 1996, gave summaries of public comments received at the initial public scoping meetings. It also explained the missions of the three land management units, Mojave National Preserve, Death Valley National Park, and BLM lands involved in the NEMO effort, and assured readers that despite the flap over the Dollar Budget, the Preserve and the planning team would continue to function until instructed otherwise by Congress.²⁰⁰ This newsletter was mailed to only approximately 500 people, as the NEMO team switched to a mailing list developed from agency lists and participants in the scoping process.²⁰¹ Some locals read specific details as proof of the illogic of Park Service control; one complained that “there is nothing sensible” about “banning” local recreationists while trying to simultaneously encourage foreign tourists to visit the Preserve.²⁰²

The planning team made efforts to contact agencies with less substantial stakes in the process that had not participated in the initial scoping meetings. In April 1996, the NEMO team officially notified California’s State Historic Preservation Office that the planning process was underway. By law, the Park Service must evaluate all structures more than fifty years old on its property for inclusion on the National Register of Historic Places. Each State Historic Preservation Office is in charge of the National Register nominations for that state, so coordination between Mojave National Preserve and the California office was essential. A

¹⁹⁹ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

²⁰⁰ Northern and Eastern Mojave Team, “Periodic Update on the Interagency Management Plan #1,” Winter 1995/96.

²⁰¹ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²⁰² Hildamae Voght, “Changes in the California Desert,” *Baker Valley News*, April 19, 1996.

month later, the State Historic Preservation Office replied, and a meeting between the NPS and the agency was held in June 1996. The State Historic Preservation Office was interested in the planning process, but had no need to play an aggressive role. Thereafter, the agency kept in touch with the planning team through the formal comment process.²⁰³

In order to meet the CDPA requirement of consultation with local Native Americans, Dennis Schramm and BLM Archaeologist Rolla Queen met with leaders of the Chemehuevi, Native Americans who historically lived in the area of the Preserve, at their Colorado River reservation on April 23, 1996. More than one year later, on May 19, 1997, NEMO planners met again with the Chemehuevi at their tribal offices. Later that day, planners met with the chair of the Fort Mojave Tribe at tribal offices in Needles. The planning team put together an intertribal meeting, scheduled for July 11, 1997 at the Avi Casino. William “Bill” Mungary, a Native American involved with the American Indian Council of Central California and other groups, conducted the meeting. The planners extended invitations to thirteen tribal groups, as well as selected NPS and BLM officials. Seven tribal leaders attended, representing the Fort Mojave Tribe, Timbisha Shoshone, Chemehuevi, and San Manuel band. In addition, nine BLM and NPS employees were present.²⁰⁴

The NEMO team utilized electronic media throughout the planning process to keep the public informed of their progress and to make documents available without the cost of printing. In February 1997, the first NEMO web site came online, hosted by the BLM along with sites for the Western Mojave and Northern / Eastern Colorado planning efforts. In April 1998, after the decision to complete three plans instead of a single joint plan, the NEMO site moved to the Mojave National Preserve website. Both drafts of the EISs and GMPs being prepared by the NEMO team were posted on the Internet site and were also made available on CD-ROM, enabling the government to avoid the \$60 per copy printing and mailing costs of the paper

²⁰³ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²⁰⁴ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

version. Approximately 100 copies of the 1998 draft were sent out on CD-ROM, and some 200 copies of the second draft were requested in the CD-ROM format.²⁰⁵

In mid-April 1997, the NEMO team mailed its second newsletter and press release, timed to announce a second round of public scoping meetings. These meetings were intended to give members of the public a chance to discuss various plan alternatives. With better media publicity, the second round of workshops attracted at least 330 participants. The ten meetings were held in the same locations as the earlier meetings, except the Independence, California, meeting which was moved to the town of Bishop.²⁰⁶ After the public meetings were held, the planning team hosted a two-day interagency scoping meeting in Barstow in late April 1997. Twenty-eight participants, representing a variety of federal and state agencies, discussed the public comments and the alternatives.²⁰⁷

The planning staff made good use out of data developed by other agencies, discounting the charge of CDPA opponents that the new parks would invalidate the time and money spent on previous planning efforts. Team members consulted existing BLM documents, many developed in preparation for and after implementation of the 1980 Desert Plan. In most cases, the BLM texts provided the planning team with a valuable resource.²⁰⁸ In a few instances, planners such as David Moore recognized the value of previous planning efforts in a more literal way:

“[E]specially for the Mojave Road - I mean, there had been so much that had been covered, and I’m sure just fought over and argued over earlier with BLM and these use groups, and so [I] felt it was still applicable and just carried it over into

²⁰⁵ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>; National Park Service, Mojave National Preserve, *Abbreviated Final Environmental Impact Statement & General Management Plan: Mojave National Preserve, California* June 2001, 1.

²⁰⁶ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>; David Drudge, “Desert Planning Workshops Offered to Public,” *Desert Dispatch*, April 12, 1997.

²⁰⁷ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²⁰⁸ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

our plan. ... I just realized that there was a lot of work and a lot of words that had been shared back and forth over the whole thing.”²⁰⁹

While planners were writing the first draft of the combined EIS and GMP, the relationship between the NPS and BLM in the NEMO team became a problem. BLM was the lead agency on two other planning initiatives in the California desert, the West Mojave Plan and the Northern and Eastern Colorado Plan, and had little money or staff to devote to the Northern and Eastern Mojave Plan. “It was their lowest priority - in fact, they told us more than once that it wasn’t a priority for them,” recalled Schramm. At the same time, the NPS portions of the NEMO plan were being funded with Park Service dollars reserved for general management plans. This imposed a sense of urgency on the NPS that did not fit well with the BLM’s less intense attitude toward the process.²¹⁰ As the combined internal-use draft NEMO plan, more than 800 pages in length, circulated among members of both agencies, BLM withdrew its support for the project. Pressure from the highest echelons of the Department of the Interior forced the bureau to come back to the table, but by then it was clear that a combined document - and combined planning process - was not feasible. Some of the spirit of ecosystem planning remained, and the NPS planning team cooperated with BLM on issues of joint concern such as burro management.²¹¹ The joint planning process ultimately proved too complex, given the different time frames, budgets, commitments, and missions of the agencies involved, for the innovative attempt at ecosystem planning to succeed in the Mojave desert.

The NPS planners utilized contracted assistance to fill in the gaps in the planning team left by BLM’s departure. BLM personnel had been an important part of the NEMO team. According to the project agreement, the Park Service provided a team leader, a community planner, and a natural resources expert. The U.S. Fish & Wildlife Service contributed a biologist, and the BLM added cultural resource expertise, Geographical Information Service (GIS) expertise, and clerical staff. The planning team could not adequately proceed until it found replacements for the lost staff. The University of Nevada, Las Vegas Cooperative Park

²⁰⁹ Author interview with David Moore, March 26, 2002, Disc 1.

²¹⁰ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

²¹¹ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

Studies Unit provided GIS services on a contract basis. The NEMO team contracted with the historian Harlan Unrau, of the NPS's Denver Service Center, to manage cultural resource planning. Dean Runyan Associates was hired to produce an Economic Impact Analysis. Jean De Los Reyes was hired as a temporary editor to help compile and revise the draft plans before their 1998 release.²¹²

The third planning team newsletter in April 1998 announced that the NEMO effort would generate three environmental impact statements, one each for Death Valley, Mojave, and BLM lands, instead of a single unified document. The newsletter reported that this was intended as a ease-of-use measure, noting that the initial combined draft was 800 pages and growing. In reality, the arrangement reflected the reconciliation of the agencies after BLM pulled out of the planning effort several months previously. The newsletter noted that interested members of the public could choose to receive the plans in electronic format if they wished.²¹³

In September 1998, the planning team released the first draft environmental impact statements and general management plans for Mojave National Preserve and Death Valley National Park. Approximately 450 of the printed documents were mailed to various parties, and more than 100 CD-ROMs were produced. The documents were also available on the National Park Service website. The official notice of availability for the plan was published on September 11, 1998 in the Federal Register.²¹⁴ In late November 1998, the original ninety day comment period was extended until mid-January 1999, which gave the public a total of 127 days to comment on the draft.²¹⁵

Unlike the first round of scoping meetings, the park encountered criticisms of the draft GMP from both traditional park opponents and those who ordinarily supported NPS efforts. Ten public meetings were conducted October 19-30, 1998, more than a month after the draft

²¹² Author interview with Dennis Schramm, March 26, 2002, Disc 1.

²¹³ National Park Service, "Final GMP Record of Decision," accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²¹⁴ Federal Register, September 11, 1998, 48727.

²¹⁵ National Park Service, "Final GMP Record of Decision," accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

documents were issued. Some criticism of the plans was encountered from anti-park critics who had also been critical of the CDPA. Others were upset because the plans did not go far enough to protect the resources of the Preserve. Peter Burk, President of the Citizens for Mojave National Park, called the draft “multiple-use double-talk,” and pitched his own “modified proposed action alternative” to better protect park lands and the desert tortoise. In their attempts to recognize the legitimacy of activities expressly permitted by Congress to continue in the Preserve, the planning team came under fire from environmentalists who wanted more strict controls.²¹⁶ The planning team received just under 400 individual letters commenting on aspects of the plan. Some 1,800 pre-printed postcards from members of the Sierra Club, the National Parks Conservation Association, and the Wilderness Society were also mailed to the team.²¹⁷

The planning team, working closely with the superintendents of both Mojave National Preserve and Death Valley National Park, realized that the tremendous public interest in the plan called for unusual measures. They decided to create a revised draft and hold another public comment period with public meetings. Some changes took place in the planning team, because after the publication of the first draft, Reetz and Moore moved to staff positions in the park, and when the GMP planning money ran out, Schramm’s position had to be funded through the park as well. As a spatial reminder of their new status, most members of the planning team moved into the regular park office, yielding their separate suite to the incoming chief ranger and his staff.²¹⁸

Schramm tackled the job of creating the official Park Service responses to public comments. He rewrote sections of the plans based on public comments. Schramm also

²¹⁶ David Drudge, “Report: Maintain Preserve’s Protection,” *Victorville Daily Press*, October 13, 1998; Chuck Mueller, “Public Comments Sought on Mojave National Preserve,” *San Bernardino County Sun*, October 19, 1998; Juliet V. Casey, “Desert Park Plan Sparks Dissent,” *San Bernardino County Sun*, October 22, 1998; “Mojave Preserve Draft Management Plan Available For Review,” *Mohave Valley Daily News*, October 29, 1998.

²¹⁷ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²¹⁸ Gordon Reetz remained in the old planning office until he left for a position in the Regional Office. David Moore, comment on first draft, July 2002, copy in possession of author.

reworked the structure of Mojave's plan, rearranging the contents under four umbrella headings designed to clarify the elements of the GMP. Superintendent Martin gave Schramm the flexibility to evade distractions; he only stopped in at headquarters a couple times a week:

“When we went from the first draft to the revised draft, most of the staff had moved into other jobs. So I basically wrote that second revised draft - that's when I spent the three months at home. My kids were in high school, and I was telling them, 'you talk about a term paper, I've got a term paper!' And I was doing two of them - Death Valley's and Mojave's.”²¹⁹

The U.S. Fish and Wildlife Service (FWS) coordinated the Desert Tortoise Recovery Plan, and therefore needed to approve of any long-term development plans in critical tortoise habitat. Rather than spend time and money on a formal Biological Opinion, the planning team received FWS reviews of the plans prior to their formal publication, for both the initial draft in 1998 and the revised draft in early 2000. Any FWS changes to the plan were promptly incorporated into the draft GMPs. As a result, the service agreed that it would issue a Biological Opinion on the final EIS when it was published, if all of FWS's concerns were addressed.²²⁰

In September 2000, Mojave National Preserve and Death Valley National Park released revised draft environmental impact statements and general management plans, and notified some 3,500 people and organizations on the NEMO mailing list. Agency responses to public comments were bound as a separate volume.²²¹ The revised draft had 92 days of public review, beginning with a notice in the Federal Register on September 6, 2000.²²² Nearly two months later, the planning team held eleven more public meetings about the proposed changes. Including this final round, a total of forty three public meetings were held during the development of the General Management Plan.²²³ Planners and park staff received 202 written comments about the revised draft.

²¹⁹ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

²²⁰ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²²¹ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²²² Federal Register, September 6, 2000, 54064-54065.

²²³ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

After the public comment period expired, the NPS reviewed the comments and decided that respondents raised no new major issues. Since there were essentially only minor corrections to make to the revised draft EIS - the revisions filled only thirty pages, minuscule by EIS standards - planners decided to issue an abbreviated final environmental impact statement, instead of a full version. This abbreviated final EIS/GMP would be read in conjunction with the revised draft for a complete final EIS and GMP. This document, issued June 21, 2001, also contained the public comments received by Mojave National Preserve about the revised draft. As had the revised draft before it, the final EIS/GMP identified Alternative 1, which called for rehabilitation of the Kelso Depot, limited development within park boundaries, and acquisition of non-federal land within the Preserve, as the proposed plan. The NEMO team mailed their fifth newsletter announcing the publication of the abbreviated final EIS and the thirty day no-action period, which was received by some 3,600 people on the planning team mailing list. On July 6, 2001, FWS issued Biological Opinion 1-8-00-F-36, which approved the NPS-preferred alternative in the abbreviated final EIS and GMP as acceptable from the standpoint of the Desert Tortoise Recovery Plan.²²⁴

One NPS change in the abbreviated final EIS/GMP seemed like a minor correction, but caused a large headache for park staff. The California Department of Fish & Game pointed out in their official response to the 2000 revised draft EIS that the preferred alternative allowed continued hunting of small game, where the Desert Tortoise Recovery Plan specified that only big game or upland game bird hunting should be allowed. The NPS responded by modifying the revised draft to conform to the wording of the Desert Tortoise Recovery Plan, “prohibit[ing] the discharge of firearms, except for hunting of big game or upland game birds from September through February.”²²⁵ Mary Martin described the result:

“[in] the final draft of the GMP, the Cal Fish & Game wrote back to us and not only did they support our hunting issue ... but they pointed out that the Desert Tortoise Recovery Plan called for the elimination of ... rabbit ... hunting. And we

²²⁴ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²²⁵ Desert Tortoise Recovery Act, 57; *Abbreviated Final EIS & GMP*, 44.

had left it in our plan. So we said ‘hey great, Fish & Game wants to reduce hunting, we’d support that,’ and we took their recommendation. Well then the hunting community heard about it - they were mad at Fish & Game, they were mad at the Park Service, and the last round of public meetings, there were lots of hunters that showed up, *lots* of hunters that showed up. The hunters were very effective at getting political support.”²²⁶

The hunting issue pitted traditional Park Service constituents, who tended to be anti-hunting, against hunters whom the Preserve was obliged to accommodate. During the “No Action Period” that followed the publication of the abbreviated final EIS, Mojave received more than twenty five letters, approximately 200 more form letters, and several petitions opposed to the hunting reduction proposal. The park also received a few letters and almost a thousand emails in favor of the hunting reductions, but the pro-hunting groups had political muscle and the legislative intent of the CDPA on their side. Superintendent Martin received several letters from congressional representatives requesting that she meet with California Fish & Game before a Record of Decision could be issued. The superintendent met with the director and deputy director of CDF&G on August 1, 2001, and NPS staff met with Fish & Game and FWS staff the following day. In both meetings, the Park Service made it clear that the intent of the GMP was to allow upland game bird hunting and prohibit hunting of predators and so-called “furbearing” species such as rabbits and squirrels.²²⁷

The issuance of a Record of Decision for the General Management Plan hinged on the successful resolution of the hunting issue. On September 7, 2001, the Park Service asked the Fish & Wildlife Service to amend the Biological Opinion, and restore rabbit hunting, to which FWS agreed almost two weeks later. The Park Service also sought to amend the hunting seasons in the Preserve to make them consistent with the Desert Tortoise Recovery Plan by making their case to the California Fish and Game Commission. As an act of conciliation, the Preserve removed the provision that a one mile no-shooting zone exist around all developed areas in the park, except around the Kelso Depot and Kelso Dunes areas, because CDF&G indicated to the

²²⁶ Author interview with Mary Martin, March 29, 2002, Disc 2.

²²⁷ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

Park Service that the existing 150-yard limit was sufficiently effective. The Preserve received almost 1,400 emails claiming that the new provisions did not comply with the Desert Tortoise Recovery Plan, but the Park Service responded that the U.S. Fish & Wildlife Service, the agency in charge of implementation of the DTRP, signed off on the change as adequate.²²⁸

Two days after FWS agreed to the changes, on September 21, 2001 NPS Regional Director John Reynolds signed the Record of Decision for the abbreviated final environmental impact statement and general management plan, identifying the preferred alternative as the official future of Mojave National Preserve. Included with the document was a signed copy of the “Floodplain Statement of Findings for the Kelso Depot,” required by executive order as a result of the building’s location in a major drainage area.²²⁹ Aside from the reversal on hunting, the Record of Decision made only a handful of minor changes, most simply corrections of errors that appeared in the revised draft EIS/GMP. Months later, the various documents, compiled into a bound General Management Plan, were received at headquarters for the everyday use of park employees.²³⁰ After six years of work, Mojave National Preserve had a clear plan for its future.

The implications of the General Management Plan for Mojave National Preserve are obvious - the goals of the park for the next decade or more are spelled out on its pages - but the Mojave plan might also serve as a successful “proof of concept” for future park-based general management plans in the NPS. Dennis Schramm, leader of the planning team that produced Mojave’s GMP, emphasized the rarity of park-based planning in today’s NPS. However, he also saw that the Denver Service Center, traditional home of NPS planning teams, receives more political scrutiny and less funding than it needs, opening the possibility that future planning may need to be park-based. Those involved in the Mojave effort hope that their experiences developing the GMP might help future park-level plans succeed.

²²⁸ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

²²⁹ See the section in this document about the Kelso depot for more information.

²³⁰ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

The Mojave planners identified two key factors in their success: isolation, and contracting. Mojave's plan benefited from having staff completely dedicated to the planning process. Enconced in semi-isolation in a separate strip-mall office, the planning team was able to work effectively without getting too caught up in day-to-day park affairs. Schramm suggests that park-based collateral duty planners often face an uphill struggle to remain focused on planning, "they just really can't put the time in on it, unless they're given the latitude to work elsewhere."²³¹ After the planning team was moved back into the main office, Schramm worked from home for three months to complete the revised draft, and his self-imposed exile proved important to his timely success. Mojave's experience with the composition of the planning team may also offer insight to future park-based planning efforts. The Park Service cannot afford to concentrate several planners, an entire planning team, at a single park. One of the key ideas behind the bioregional planning effort was the sharing of resources - in theory, the Park Service only had to pay for three positions on a seven-member team of experts. Once the BLM embarked on its own plan, the Park Service had to find a way to complete the plans on its own, and discovered that contracting could provide much of the needed expertise. Asked about the ability of other parks to replicate Mojave's success, Schramm suggested that:

"if you did it where the superintendent and a key person were park base-funded and *involved*, and you got a chunk of planning money to contract some support services, you know, I think you could pull it off."

²³¹ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

Six: PARK MANAGEMENT AND ADMINISTRATION

While the planning team created a document from which the ideal future of the park would emerge, the rest of park staff went about the daily business of running one of the largest parks in the continental United States. The Preserve's several administrative teams all faced a remarkable diversity of issues. The history of pre-Park Service low-key management of the eastern Mojave was the indirect catalyst for episodes where user expectations clashed with the Park Service's mission of preservation and protection of the resources of the desert. The Preserve's proximity to two interstate freeways and the greater Los Angeles urban area changed the shape and focus of the park's visitor and resource protection measures, giving Mojave National Preserve management issues more common in urban parks like Golden Gate NRA. Mojave's management also tackled other concerns, like personnel issues and maintenance, that have been addressed by nearly all parks but that were nonetheless crucial to the proper functioning of the Preserve.

Top-level managers organized the administrative structure of the Preserve into several teams, each with separate areas of responsibility. Dave Paulissen, one of the park's original employees, has led the administration and maintenance division since its inception. Chief Ranger Sean McGuinness leads the resource and visitor protection division and also bore responsibility for interpretation programming until the Preserve hired Mary "Jeff" Karraker in 2001 to head up a separate interpretation unit. Larry Whalon supervises the intricate complexities of the resource management division. This chapter addresses management and administrative issues; chapter seven explores the history of resource protection and interpretation at the Preserve; and chapter eight examines resource management themes.

The management of Mojave National Preserve, perhaps more than other aspects of the park, reflects the Preserve's early days. The management team is close-knit, innovative, and

flexible. One of the most remarkable features of the management process is that the division leaders have mutually agreed that salaries will not exceed 75 percent of the total base budget. Typical parks have upward of 90 percent of their total base budget tied up in salary expenses. The result is a greater degree of flexibility for Mojave - the agreement makes it possible to fund projects that are unforeseen but necessary. One example of such a program was the funding of the first two years of the burro removal program. Eventually, the park received money from a national fund dedicated to resource protection to continue the work begun by the park, but if some burro mitigation measures had not been taken when they did, the problem would have quickly spiraled out of control because of the burro's prolific reproduction. This 75 percent cap agreement, though unwritten, is very clear to all of the managers, and trust between them makes it possible to continue the practice to the benefit of the park.²³²

Another unusual practice, predicated on trust between the division leaders, is the management team's negotiation over all new hires. If an existing position goes vacant, it is not automatically filled with an identical replacement - the position is discussed by the management team, and the salary dollars may be put to use in a different capacity or division, to better reflect the park's adjusted priorities. When viewed in contrast to the image of a stereotypical park, where division chiefs are loathe to give up control over any dollars or positions because they might not get them back, the practice seems remarkable indeed, and helps Mojave make the most of its limited fiscal resources amid shifting priorities.

The top management team long administered the park in a hands-on kind of way, which stems from times when the park staff was much smaller. Weekly all-staff meetings were the norm for many years, where top leaders not only developed management philosophy for the park, but also made many day-to-day decisions. Explains David Moore:

“Now, the team, the squad managers, get together and talk about more of the big-picture stuff, but back then, it was everything. You dealt with everything, you know, from ‘do we need to order some more water for the water coolers’ to dealing with public relations - just everything.”²³³

²³² Author interview with Mary Martin, March 28, 2002, Disc 2.

²³³ Author interview with David Moore, March 26, 2002, Disc 2.

The staff retains a vestigial flexibility as well. The management team emphasized solving problems, not necessarily working within any given employee's particular job description. Veteran employees joke of times when no one really wanted to answer the outside telephone line, since whomever picked up the receiver would undoubtedly be saddled with a new project or investigation if the caller needed something specific. As the park staff has grown in size and the backlog of unaddressed issues has been reduced, the need for such staff flexibility has been reduced, but not eliminated. Staff members still routinely take on assignments outside their traditional areas of expertise when asked to do so.

Something is clearly working well, for the Preserve has garnered several major awards in its short history. In 1995, the park received the Secretary's Award for the law enforcement investigation that led to the arrest and incarceration of two men who were dumping highly hazardous compounds on NPS lands. In 2001, Mojave received the NPS Director's "Park Wilderness Stewardship Award" in recognition of several accomplishments, including the Catellus land swap agreement, the acquisition of the Overson grazing allotments, the work with the California Integrated Waste Management Board to clean up hazardous waste and trash in the Preserve at low cost, and the marking and patrol of wilderness boundaries.²³⁴

One common criticism of the eastern Mojave during the debate over the California Desert Protection Act was that the area did not have the scenic qualities of a park. The inaccuracy of that assertion was again demonstrated in a small but significant way in March 2001. Kodak and the National Park Foundation sponsored the "Experience Your America Photo Contest," for the best photo taken in a national park. David Aikenhead, a California resident, won "honorable mention" with his photo of a person amid a sea of wildflowers in the Mojave National Preserve.²³⁵

²³⁴ Mojave National Preserve Press Release, "Mojave National Preserve Receives Honor," August 16, 2001.

²³⁵ Mojave National Preserve Press Release, "Mojave National Preserve Photo Wins Honorable Mention in National Parks Pass Experience Your America Photo Contest," March 15, 2001.

Every national park has had to face problems that arise from visitors' expectations that differ from the course of action required by the Park Service's mission, but Mojave National Preserve has seemingly faced more than its share of these issues, chiefly because of the area's governance under BLM's much more lenient rules less than a decade ago. One of the most unusual incidents began as a minor movement of performance art enthusiasts and their followers rose to international prominence as they worshiped the object of their affection - a lonely telephone booth, at the end of a long string of poles. Park Service employees were amused at first, but chuckles turned to concerns as visitor traffic increased and booth enthusiasts left behind offerings of art and junk, like pilgrims at a pop culture shrine. Concerned about impacts to desert resources, aware of the expiration of the expiration of Pacific Bell's right-of-way, and unmoved by the apparently frivolous arguments of the phone booth users, the NPS ensured the booth's removal. Booth enthusiasts flooded Mojave headquarters with angry emails and phone calls, and charged the Park Service with only welcoming certain kinds of visitors with open arms, the counterculture's retread of the argument used by almost any group that finds the NPS mission in the way of their personal use of a public place.

A telephone was placed in the California desert around 1948 along a telephone line that stretched from Highway 91 through the east Mojave to Route 66. The idea was to provide local cinder miners with a means of communication with the outside world. The phone itself, known as "Cinder Peak 2," had to be cranked by hand. Emerson Ray, owner and operator of the nearby Cima Cinder Mine, requested the installation of the booth. Sometime in the mid-1960's the phone was replaced with a regular payphone, which was upgraded again sometime in the late 1980s as touch-tone payphones became the norm.²³⁶

The phone had long been listed on American Automobile Association maps of the area - the word "Telephone" at the junction of a couple of dirt roads. Early visitors to the booth were lured to the area by the apparent incongruity of a telephone seemingly in the middle of nowhere, 15 miles from a paved road. In May 1997, one traveler wrote a letter to a fan "zine" for the

²³⁶ Quoting Charlie Wilcox in Warren Bates, "If A Phone Rings In the Desert," *Las Vegas Review-Journal*, August 1, 1999.

Washington band “Girl Trouble,” describing the remote phone. This fired the imagination of Godfrey Daniels, a Tempe, Arizona-based computer programmer and sometime artist, who resolved to call the booth’s number every day until he received a response. His breakthrough occurred in late June 1997, less than a month after he started calling, when he reached Lorene Caffee, operator of the local cinder mine, as she made calls from the booth.²³⁷ Daniels, in a transcript of the phone call posted on his website, was clearly thunderstruck by the fact that the booth actually existed, and vowed to visit some day.

Daniels made his first trip to the site in late August 1997, after receiving a Xeroxed map of the area from Dennis Casebier. He got lost, presaging the experience of hundreds who would follow in his tire tracks, and arrived after dark. Still, the booth inspired him:

“It was just as I had imagined it--a lonely communications outpost at the end of a long, long chain of telephone poles. All its glass had been shot out, but I thought it was beautiful. At that moment I felt I might never leave it.”²³⁸

The story of the booth spread rapidly, posted by Daniels on his website and popularized through contacts in the counterculture art world. When he first made a trip to the booth, no one called - Daniels paged a friend so he could hear what an incoming ring sounded like. Most of the commentors on his website were friends from the art world or people who happened across the site accidentally. A series of radio appearances and small news articles, starting as early as 1998 and increased in frequency by April 1999, drew more visitors to Daniels' webpage. The overall tone was still friendly. One writer detailed her plans for an Easter weekend campout, and Daniels replied that he would try to show up.²³⁹ Phone traffic could be heavy if a trip to the booth was publicized in advance. Camping overnight at the booth on his way to the 1998

²³⁷ <http://www.deuceofclubs.com/moj/mojave1.htm>, accessed March 1, 2002. Note that Daniels misreports Caffee’s name as Crawford, an error repeated by several news stories.

²³⁸ <http://www.deuceofclubs.com/moj/mojave3.htm>, accessed March 1, 2002.

²³⁹ “Joules,” comment on 4-26-1999, in <http://www.deuceofclubs.com/moj/mojmail2.htm>, accessed March 1, 2002.

Burning Man festival, the phone rang almost constantly, enough so that Daniels had to take the receiver off the hook to get some sleep.²⁴⁰

Media attention began to spread the word about the funky telephone booth in the middle of nowhere. A visitor in early July 1999 logged three calls in an hour and a half, more than typical but hardly a portent of things to come.²⁴¹ As news of the booth spread, the number of visitors to the area also increased. The new enthusiasts came from all walks of life, but they all had the phone booth in common. Andria Fiegel Wolfe, an interior designer from New York, flew cross-country with her sister to answer calls at the booth in their birthday suits. Two southern California men, who had only met online, took a roadtrip to the booth to hang up the receiver when they received constant busy signals. An Arizona man, Rick Karr, acting on orders from the Holy Spirit, spent more than a month camped beside the booth in the middle of summer in 1999. Karr read scripture to astonished callers and documented every one in a logbook, recording over 500 calls. Mike Sims and Ron Kling set up a party at the booth, complete with food and a punk band, to promote their website.²⁴²

The story of the “loneliest phone booth in the world” was picked up by major news outlets after mid-1999, and the added publicity proved fatal to the booth. Flash News Service first told of the new phenomenon, and the story was subsequently investigated by the Los Angeles Times, the New York Times, the San Bernardino Sun, and the Las Vegas Review-Journal, among others. When news of the booth, along with maps and directions, appeared in major papers serving populations within driving distance of the location, the increase in visitors to the site was enormous. The Los Angeles Times reported Daniels’ plans for a Y2K celebration at the booth, and the deluge of self-invitations from people who wanted to be part of the action convinced

²⁴⁰ <http://www.deuceofclubs.com/moj/mojave3.htm>, accessed March 1, 2002;
<http://www.deuceofclubs.com/moj/bm98/index.html>, accessed March 1, 2002.

²⁴¹ “Charles,” comment on 7-4-1999, in <http://www.deuceofclubs.com/moj/mojmail2.htm>, accessed March 1, 2002.

²⁴² <http://www.illuminatrix.com/mojave/>, accessed March 2, 2002;
<http://www.deadpan.net/mpb/>, accessed March 2, 2002; Steve Smith, “Telephone Booth a Mojave Mecca for the Faithful,” *San Bernardino County Sun*, August 21, 1999; John M. Glionna, “Reaching Way Out,” *Los Angeles Times*, September 18, 1999.

Daniels to stay away. Dozens of TV crews, including major nationwide networks, made the trip to the Mojave. The phone would hardly be placed in the cradle before it would ring again. Even David Letterman did a spoof, documenting “the mic stand in the middle of nowhere.”²⁴³ Those people who had learned of the booth’s existence before the media blitz lamented its newfound popularity. One wistful post noted that “Something kinda dies after Brokaw gets ahold of it...know what I mean?”²⁴⁴

Many of the residents of the area did not mind the popularity. Charlie Wilcox, a local with a tow truck, made money from ill-prepared booth visitors who ignored warnings not to take two-wheel drive cars on the sandy roads. However, one nearby rancher, Tim Overson, was not happy with the booth or the unusual people who gravitated to it. His frustration was due in part to the fact that the best road to the phone ran literally right through his front yard, and when people got stuck, they often knocked on his door. Mary Martin noted Overson’s method of occasional revenge: “although he won’t admit it - he’d go on out and cut the wire.”²⁴⁵

Nothing prepared Mojave management for the popularity of a lonely phone booth. Pacific Bell’s right-of-way for the phone booth expired in 1992, and the company hadn’t bothered to renew it. The line wasn’t very profitable, and much of the need for the cross-desert telephone link had been eliminated when a microwave tower was installed further south, leaving the Mojave Phone Booth at the end of a long line of poles.

With the increased notoriety of the booth and the extensive activity at the site, the NPS grew ill at ease. In early May, park staff happened upon a campfire at the booth, blazing away unattended. This was the final straw: Park Service officials “had a chat” with Pac-Bell and encouraged the phone company to remove the booth. Without notice, Pacific Bell hauled the

²⁴³ “The Late Show With David Letterman,” November 9, 1999.

²⁴⁴ “Jessica P,” comment on 10-4-1999, in <http://www.deuceofclubs.com/moj/mojmail3.htm>, accessed March 1, 2002.

²⁴⁵ Author interview with Mary Martin, March 28, 2002, Disc 2.

booth away on May 17, 2000, leaving the counterculture in mourning and the press writing requiems for the “loneliest phone booth on Earth.”²⁴⁶

The Park Service was deluged with emails, phone calls, and letters from outraged supporters of the telephone booth. Daniels posted Superintendent Martin’s park phone number and email address on his website, and exhorted booth supporters to call: “Do it. Do it. Do it till you're satisfied.”²⁴⁷ Many pro-booth correspondents pointed out the appearance of hypocrisy: “[I]sn’t this a form of recreation? I thought our system of National Parks was for recreational use?”²⁴⁸ Almost all protested NPS claims of environmental damage in the area. Some took issue with other parts of the boilerplate NPS reply, which charged booth visitors with bringing decorative white quartz rock to the site and interpreted a note that one user left at the booth reminding visitors to keep the area clean as evidence of the volume of trash left behind by visitors.²⁴⁹ Others were threats, including one bomb threat that sounded serious enough to prompt the Park Service to call the Federal Bureau of Investigation.²⁵⁰ Many supporters attempted to verbalize their affections for the booth: “It had SOMETHING...something about it was almost mysterious.”²⁵¹ “Folks...had a possibility to get out for a while from their every day life...”²⁵² “I’ll probably be mourning its death on and off for the rest of my life.”²⁵³ The rhetoric of loss, while exaggerated, seemingly reflects a real depth of feeling about the phone booth. The NPS did receive a small number of letters in support of its action, from the National Parks

²⁴⁶ Author interview with Mary Martin, March 28, 2002, Disc 2; Renee Tawa, “Requiem for a Telephone Booth,” *Los Angeles Times*, May 30, 2000.

²⁴⁷ Deuce of Clubs, in <http://www.deuceofclubs.com/moj/index.html>, accessed March 8, 2002.

²⁴⁸ Brett Taylor letter to U.S. Representative Lynn Woolsey, May 23, 2000, in NPS file A3615 “Complaints,” Mojave National Preserve Headquarters, Barstow CA.

²⁴⁹ See Mary Martin letter to Robert Goodale, June 12, 2000, in NPS file A3615 “Complaints,” Mojave National Preserve Headquarters, Barstow CA.

²⁵⁰ Author interview with Mary Martin, March 28, 2002, Disc 2.

²⁵¹ Comment from “romeo” May 20, 2000, in <http://www.deuceofclubs.com/moj/mojmail5.htm>, accessed March 1, 2002

²⁵² Comment from “Borys from Poland” Sept 2, 2000, in <http://www.deuceofclubs.com/moj/mojmail5.htm>, accessed March 1, 2002.

²⁵³ Comment from “James B.” March 21, 2001, in <http://www.deuceofclubs.com/moj/mojmail5.htm>, accessed March 1, 2002.

Conservation Association and other individuals who resented the booth as a man-made intrusion inconsistent with the features that were supposed to exist in national parks.²⁵⁴

The furor took a considerable time to die down. Almost two years after the booth's removal, the superintendent continued to receive several booth-related emails a week.²⁵⁵ The incident and the subsequent reaction after the booth was removed illustrate the difficulties posed to the Park Service by the history of the eastern Mojave as a working landscape. When applied to a place that had long been managed for multiple uses, the NPS mission of preservation and protection can seem unduly restrictive to users wishing little resistance to their exercise of unlimited freedom in the form of worshipping a quirky phone booth on public lands.

The Park Service encountered a similarly furious reaction when it announced plans to remove another odd cultural item in the Mojave National Preserve. This time, the outcome was different, and the item in question was saved. In 1934, the Death Valley chapter of the Veterans of Foreign Wars constructed a wooden cross atop a pile of rocks along Cima Road. As an adjacent sign explained, the memorial was intended to honor "the dead of all wars."²⁵⁶ The site was the location of occasional resident get-togethers as well as regular Easter sunrise services, and became known as "Sunrise Rock." The sign and the cross both fell victim to vandalism, but area residents reconstructed the cross each time it was damaged. The current version, some eight feet of iron pipe welded to bolts sunk in holes drilled into the granite rock, was constructed by Henry Sandoz, who takes care of the area in memory of his late friend, J. Riley Bembry, who helped construct the original cross. BLM apparently paid little attention to the cross, which was only one of several on BLM desert lands, and the Park Service took a similarly laissez-faire attitude toward the memorial after the park was established. In May 1999, a Buddhist monk

²⁵⁴ Helen Wagenvoord letter to Mary Martin, May 31, 2000, Claire Perricelli letter to Mary Martin, June 10, 2000, Thomas J. Suk letter to Mary Martin, June 11, 2000, Marilyn Dinger letter to Mary Martin, June 12, 2000, Sherryl Taylor letter to Mary Martin, June 13, 2000, in NPS file A3615 "Complaints," Mojave National Preserve Headquarters, Barstow CA.

²⁵⁵ Author interview with Mary Martin, March 28, 2002, Disc 2.

²⁵⁶ Ausmus, 117.



Illustration 11 - The first cross at this location was constructed in 1934. This cross was the focus of a lawsuit between the NPS and the ACLU. (Photo by Eric Nystrom, 2001.)

attempted to receive permission to construct a stupa on the site. Citing their eventual intention to remove the cross, the park denied the monk's request.²⁵⁷

In 1999, after he left the Park Service, former Mojave employee Frank Buono contacted the American Civil Liberties Union (ACLU) of Southern California and informed them about the existence of the cross. On October 6, 1999, the ACLU formally requested removal of the cross, and threatened to sue if their demand was not met. In compliance with Section 106 of the National Historic Preservation Act, NPS Historian Mark Luellen from the Pacific Great Basin Support Office spent several days in early November 1999 researching the history of the cross. The item's dual purpose, both religious and as a memorial, plus the fact that it had been

²⁵⁷ Mary G. Martin letter to Sherpa San Harold Horpa, May 27, 1999, in "Read File FY99" tab "Management Team," MOJA HQ.

reconstructed several times, made its eligibility for the National Register of Historic Places extremely doubtful. It looked like the cross might have to go, but Preserve management dragged their feet on the actual removal. The action would certainly be extremely unpopular with local residents, so there seemed to be no advantage in hurrying the situation.²⁵⁸

While the Park Service delayed action, word of the pressure to remove the cross spread. Kathy Davis, San Bernardino County Supervisor for the area, sent Martin a letter urging retention of the memorial. In January 2000, Assistant DOI Solicitor Larry Bradfish sent the ACLU more information about the cross in response to the latter's request. When the ACLU again contacted Bradfish in July 2000 to see if action had taken place, the group was informed that Preserve officials decided not to do anything about the cross. The ACLU repeated its threat to sue in a letter to the director of the National Park Service in early August, noting that the area could be made a forum for free expression or the cross could be temporarily built each year under permit for specific religious ceremonies, as at Easter sunrise services at Grand Canyon National Park. Noting both that case law was overwhelmingly clear that the cross would have to go and that any court would probably assess damages against government employees who knew about the cross but did nothing about it, the ACLU declared its intent to sue if action was not taken by early October 2000.²⁵⁹

The threat to pursue damages against individual employees caught the attention of Mojave National Preserve's management team, and Martin decided reluctantly in October that the cross would have to come down. The Park Service informed the ACLU of its decision, and stated that the cross would be removed by the end of the year. In the meantime, newspapers picked up the story, and angry locals prompted Rep. Jerry Lewis to address the issue. In December 2000, Lewis added a rider to a fiscal year 2001 appropriations bill that prohibited the

²⁵⁸ Michael Small, Chief Counsel, ACLU of Southern California, letter to Mary Martin and John Reynolds, October 6, 1999; Mark Luellen memorandum to Mojave National Preserve Superintendent, November 11, 1999, in folder "The Cross at Sunrise Rock" in folder L-58 "Proposed Areas," Park files, Mojave National Preserve Headquarters, Barstow CA.

²⁵⁹ Kathy Davis letter to Mary Martin, December 1, 1999; Larry Bradfish letter to Michael Small, January 21, 2000; Michael Small letter to Robert Stanton, August 3, 2000; in folder "The Cross at Sunrise Rock," MOJA park files.

Park Service from using any federal money to remove the cross; in other words, the NPS could not take action on government time. This granted the cross a year-long reprieve, but in March 2001 the ACLU filed suit to have the matter resolved in court.²⁶⁰

The Preserve was caught between the ACLU lawsuit and federal action taken by Jerry Lewis. Park employees, including Martin, gave depositions in the case, and the Department of the Interior's Solicitor's office represented the park and DOI employees named in the suit. In August 2001, the cross was a topic on national television show "CBS Sunday Morning," which helped gain nationwide publicity, then in December 2001, Lewis added a rider to the FY 2002 Defense appropriations bill, which made the cross a national memorial in honor of veterans of World War I and allocated \$10,000 to create a plaque for the site. Cross supporters believed that the area's designation as a national memorial, equivalent to national battlefields with their rows of crosses, would have an effect on the ACLU lawsuit, but the organization contended that the suit would continue as planned. In summer 2002, the Preserve awaited word from NPS offices in Washington, D.C., to begin action on the new memorial, when U.S. District Court Judge Robert Timlin ruled in favor of the ACLU, declaring that the cross constitutes "a message of endorsement of religion" by the federal government. Judge Timlin ordered the cross removed, though he did not set a deadline. The Justice Department, backed by Lewis, asked for a delay and guidance in order to comply with both the ruling and the Congressional directive declaring the cross a national memorial. Lewis began negotiations to transfer the cross and the land around it to Henry and Wanda Sandoz, nearby residents who take care of the cross, in exchange for land elsewhere in the Preserve owned by the couple. In February 2003, the Department of

²⁶⁰ Mary Martin, memorandum to Mojave National Preserve Employees, October 6, 2000, in folder "The Cross at Sunrise Rock," MOJA park files; Chelsea J. Carter, "Parks to Remove Cross From Federal Land," *San Bernardino County Sun* October 27, 2000; A.J. Gardner, "Long-standing Wooden Cross Removed By Parks Officials," *Desert Dispatch* November 1, 2000; Che Tabisola, "Cross Targeted for Removal is War Memorial, Baker Woman Says," *Victorville Daily Press* November 4, 2000; A.J. Gardner, "Congress Says Cross Remains," *Victorville Daily Press* December 19, 2000; A.J. Gardner, "ACLU Promises Fight Over Cross," *Victorville Daily Press* December 20, 2000; A.J. Gardner, "ACLU Files Suit," *Victorville Daily Press* March 22, 2001.

Justice declared its intention to appeal the ruling of the District Court, but advised the NPS to cover the cross with a tarp until the situation is resolved.²⁶¹

The controversy over the cross on Sunrise Rock illustrates the difficulties for the Park Service that happen when the agency finds itself at the middle of a struggle over contested meanings of a public symbol. To local residents, the cross was a religious symbol, and a patriotic tribute to America's veterans. It also served as a source of local identity, giving residents a focal point around which to gather and to rally. While the phone booth attracted a constituency made up mostly of outsiders, local residents argued to keep the cross intact. Lewis took his constituents's concerns seriously, and the cross, preserved as a national memorial inside Mojave National Preserve, would certainly have been removed without his actions. Both the Mojave Phone Booth and the cross on Sunrise Rock highlight how different groups find meaning in curious artifacts in Mojave National Preserve, and how the Park Service frequently ends up in the middle of conflicts over which interpretation triumphs in the end.

While only a handful of parks have ever become embroiled in disputes over publicly displayed religious symbols, every park must concern itself with personnel issues and maintenance of park facilities. The basic administration of a park is not glamorous, but human resources and maintenance are both essential parts of the foundation of the park.

Personnel management at Mojave National Preserve was guided by Marcia Schramm from the establishment of the park until her departure in September 2002. Schramm brought up-

²⁶¹ David Mondoza, "CBS Show Takes on Cross Battle," *Victorville Daily Press* August 4, 2001; Ryan Daugherty, "Mojave Preserve's Cross Declared National Memorial," *Victorville Daily Press* December 21, 2001; Author interview with Mary Martin, March 29, 2002, Disc 2; U.S. House of Representatives, "Conference Report on H.R. 3338, Department of Defense Appropriations Act, 2002," Section 8137, December 19, 2001, H10516, H10799; Gary George, "Judge Orders Removal of Historic Mojave Cross," *Victorville Daily Press* July 26, 2002; Tiffany Starkey, "Feds Ask Judge to Delay Cross Removal," *Victorville Daily Press* August 16, 2002; Kelly Donovan, "Land Swap Puts Couple in Spotlight," *Victorville Daily Press* December 6, 2002; Richard Lake, "That Old Rugged Cross," *Las Vegas Review-Journal* December 15, 2002; Kelly Donovan, "Justice to Appeal Order to Remove Mojave Cross," *Victorville Daily Press* February 14, 2003; Kelly Donovan, "Feds Order Cover-up For Mojave Cross," *Victorville Daily Press* March 13, 2003.

to-date human resources solutions to the problem of hiring and retaining a diverse and productive park staff. In 1997, all employees attended a week-long training session on Stephen Covey's "Seven Habits of Highly Effective People," and all members of the management team received diversity training.²⁶² Marcia Schramm represented Mojave National Preserve on the Pacific-West Region's Equal Opportunity Diversity Advisory Committee throughout her tenure. Schramm and other managers formulated a diversity plan in 1997-1998, utilizing the regional committee's plan as a model. The plan's focus was for the Preserve workforce to "reflect the diversity of the American population." The document outlined a series of objectives and strategies to achieve those objectives, including conducting more recruiting among underrepresented groups and creating a plan to enhance the quality of work life.²⁶³ The park was very successful in hiring more diverse candidates in both its seasonal hires and in additions to the permanent park staff. For example, in fiscal year 1999, seven out of eight temporary hires and four out of six permanent employees were either women or minorities, and the following year the statistic was four out of six temporary and six of six permanent hires.²⁶⁴

The employee geography of Mojave National Preserve, which sees more than half of all personnel clustered in Barstow, and the rest distributed in or near the park at Baker, Needles, Hole-in-the-Wall, and Kelso, is not conducive to maintaining good headquarters/field relationships. In recognition, the Preserve administration took many concrete steps to forge all employees into a team, and to increase headquarters/field employee communication. The tradition of having an all-employee campout in the park every year, started in the wake of the Dollar Budget, became an excellent way for park staff to come together in a team spirit. Other steps, such as ensuring field employee participation on the Work-Life Issues Committee and development of an internal park website, also helped bring all of the employees closer together. Mojave National Preserve established the Work-Life Issues Committee in FY1998 to address

²⁶² Mojave National Preserve, "Report of Accomplishments, October 1, 1996 to September 30, 1997," 3.

²⁶³ Mojave National Preserve Diversity Plan, 1998, 2-7.

²⁶⁴ Mojave National Preserve, "FY99 Accomplishments for Superintendent's Performance Review," 5; Mojave National Preserve, "Accomplishments for Superintendent's FY2000 Performance Review," 4.

issues of concern to park employees and to help make the Mojave workplace a better place, in keeping with the diversity plan's goal to retain a more diverse workforce. The committee tackled issues such as improving park housing for field employees and creating a park-wide safety plan.²⁶⁵ Schramm's use of modern human-resources practices, such as addressing the issue of diversity in the workplace, ensuring total employee participation in team building exercises, and formation and ongoing use of an employee-led work-life committee, contributed positively to the employee culture at the Preserve.

Mojave National Preserve's maintenance operations can also be described as applying current best practice to the situations faced by the new park. Mojave explicitly learned the lessons from the experiences of other parks. The Preserve consciously attempted to avoid creating any more facilities that require maintenance in the park itself, and instead contracted its vehicle maintenance and other work to reputable outside vendors. Likewise, the maintenance yards themselves were located in a former CalTrans yard in Baker, where suitable facilities already existed and the Preserve therefore avoided the cost of new construction. Nonetheless, when park facilities were in need of work, the maintenance was done with the goal of fixing the problem completely, as evidenced by the comprehensive overhauls received by the two main campgrounds. The maintenance team of the Preserve is also noted for innovative solutions to enhance park facilities.

The park campgrounds at Mid Hills and Hole-in-the-Wall were inherited from the Bureau of Land Management, who constructed them in the 1960s.²⁶⁶ When the Park Service took over the campgrounds, the Hole-in-the-Wall site had been recently overhauled and was in good shape, but the Mid Hills facility was in desperate need of repair. In a multi-year project, the table tops and benches, fire rings, vault toilets, campsite markers, interpretive displays, and gravel roads were replaced or refinished at Mid Hills, and new trash cans and an informative bulletin board were installed at Hole-in-the-Wall. The water systems at both campgrounds were also subjected

²⁶⁵ Mojave National Preserve, "Superintendent's Annual Report for FY98," 1; Mojave National Preserve, "FY99 Accomplishments for Superintendent's Performance Review," 4.

²⁶⁶ Burk, *Critical History*, 21.



Illustration 12 - Solar panels power the ranger station at Hole-in-the-Wall. (Photo by Eric Nystrom, 2001.)

to major overhauls. BLM did not regularly check the water quality at Mid Hills, and when the park first checked the water, it tested positive for e.coli bacteria, because of a contaminated water storage tank. This got the attention of the Regional Director, who made it a priority to get the water system completely overhauled and replaced, a task completed by 1999. At Hole-in-the-Wall, water lines running to the campground and the fire center were replaced, and the process of upgrading the water lines in the campground itself is underway as of 2002.²⁶⁷

Maintenance needs often dovetailed with measures to better protect park resources. A series of measures upgrading the visitors' parking lot and shade shelter at Zzyzx included installation of raven-proof trash cans, to avoid adding to the numbers of exotic predators feeding on baby desert tortoises. At Kelso Dunes, an upgrade program resulted in similar armored trash cans, new vault toilets to eliminate issues with human waste, a fence to reduce the number of trails across the sensitive dunes, and an oiled road, to keep dust levels down and increase the

²⁶⁷ Mojave National Preserve, "Report of Accomplishments October 1, 1996 to September 30, 1997," 3; Mojave National Preserve, "Superintendent's Annual Report for FY98," 3; Mojave National Preserve, "FY99 Accomplishments," 17; David Moore, comments on first draft, July 2002, copy in possession of author.



Illustration 13 - A three-dimensional iron Joshua tree casts shadows upon one of Mojave National Preserve's six entrance monuments. (Photo by Eric Nystrom, 2001.)

Preserve's air quality. These and other maintenance tasks were largely accomplished by Mojave's small regular maintenance staff when possible, assisted by the park fire crew if needed.²⁶⁸

In 1997 and 1998, Administrative Officer Dave Paulissen coordinated a partnership with Sandia National Laboratory and Southern California Edison to get a solar-photovoltaic generation system to replace a noisy propane-powered generator at the visitors' center at Hole-in-the-Wall. The new Hole-in-the-Wall fire center was also powered by sunlight. These systems

²⁶⁸ Mojave National Preserve, "Major Accomplishments for the First Five Years (1994-1999)," 4; Mojave National Preserve, "FY 2000 GPRA Accomplishments," 9; David Moore, comments on first draft, July 2002, copy in possession of author.

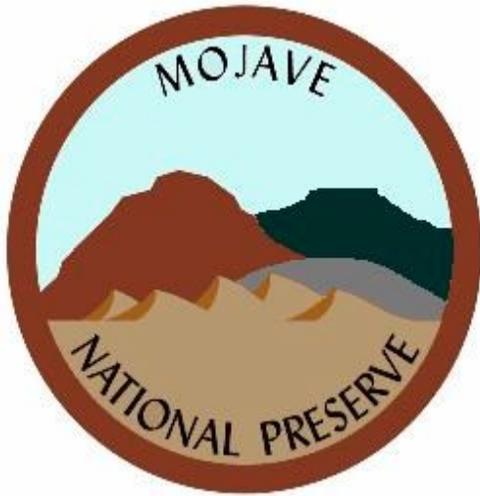


Illustration 14 - The park's official logo depicts stylized representations of the Mojave landscape. (Logo courtesy Mojave National Preserve.)

promote the use of green energy, and may provide an example to park inholders, most of whom have to rely on generators for power.²⁶⁹

The Preserve's administration approached even seemingly minor tasks with a participatory spirit. As a new park, Mojave had no insignia for letterhead and official patches. The park sponsored a design contest for the logo. Jim Vanderford and Jeff Garrett, both employees of Lake Mead NRA, each earned \$200 for their collaboration on the winning symbol.

Administration also had to create entrance monuments for the six major entrances to the Preserve. In a creative attempt to increase community identification with the park and transcend typical wooden signs, Mojave held a design competition for the new monuments. The winning entry, announced in 1997, garnered a \$1,000 prize for the artist, Jodie Peterson of the Denver Service Center. The monuments were installed in 1999, and each feature a three dimensional iron Joshua Tree that casts shadows on the classic desert-colored backgrounds.²⁷⁰

Though management teams, personnel issues, and maintenance operations are not the flashiest aspects of Mojave National Preserve (or any other park), they play integral roles in the ongoing functioning of the park. A close study of all three at Mojave reveals similar themes: cutting edge theory applied to everyday practice, close-knit groups to emphasize teamwork, creative and innovative partnerships to reduce costs and protect resources, and important flexibility to deal with the myriad of unique and common issues facing the park on a regular basis.

²⁶⁹ Mojave National Preserve, "Report of Accomplishments October 1, 1996 to September 30, 1997," 1.

²⁷⁰ Mojave National Preserve Press Release 97-005, "Sign Contest Winner," [May 1997].

Seven: VISITOR SERVICES

Much of the management of Mojave National Preserve takes place out of the direct public eye. Park visitors see only the tip of the employee iceberg. Those rangers who do directly interact with park patrons generally come from two of the Preserve's administrative divisions. Some are law enforcement rangers, in charge of protecting park visitors and the resources of the Preserve. Others are interpretive rangers, responsible for educating the public about Mojave National Preserve. Both law enforcement rangers and interpretive personnel are common to nearly all NPS units, but both job types at Mojave National Preserve have unusual features because of the size of the park and its proximity to urban areas.

After the Dollar Budget threat passed, one of the first priorities for the park was establishment of a ranger program. The departure of Bill Blake and the seasonal rangers left the Preserve virtually unprotected. Sean McGuinness was stationed at Wrangell-St. Elias National Park and Preserve before being chosen as Mojave's Chief Ranger. Upon his arrival, he was placed in charge of all visitor services. The management team allocated money for three law enforcement rangers and two more interpretive rangers to assist Kirsten Talken. As Mojave National Preserve tried to reinvigorate a dormant ranger program, the law enforcement and interpretive challenges seemed daunting.²⁷¹

²⁷¹ Author interview with Sean McGuinness, via telephone, December 4, 2002.

Resource and Visitor Protection

At Mojave National Preserve, the challenges posed both by urban growth in the Southwest and by the compromises inherent in the park's formation fall squarely on the shoulders of the law enforcement ranger corps. Mojave is a “nowhere between two somewheres,” and it is these “somewheres” – specifically the greater Los Angeles and Las Vegas metropolitan areas – that contribute to most of the workload for Mojave’s law enforcement rangers. Speeding motorists, clandestine drug labs, graffiti, and theft and damage of natural resources result from Mojave’s urban proximity. Other incidents have resulted from the railroads and freeways that run through and adjacent to park lands, connecting the sprawling urban areas. Citizen attitudes toward the desert ecosystem of Mojave National Preserve complicate management even further. Many Americans viewed the desert as a wasteland, a mindset that did little to discourage illegal OHV use and illegal dumping. The history of low-key BLM management left its own legacy, further complicating the job of Mojave’s rangers. Perhaps the biggest challenge of all was posed by the park’s vast size - precisely how *does* one effectively patrol a 1.6 million acre park with only a handful of rangers?

Situated between two interstate freeways and between two major metropolitan areas, Mojave National Preserve endures a tremendous amount of road traffic that uses paved park roads as shortcuts. Much of this traffic travels between the Palm Springs and Twentynine Palms areas and Las Vegas. These visitors usually speed through the park, typically along Kelbaker and Kelso-Cima roads. Half of Mojave’s ranger vehicles are outfitted with radar, and rangers watch carefully for violators as they patrol the park. Despite the fact that Mojave’s posted speed limit of 55 miles per hour permits travel through Mojave faster than in most national parks, some visitors have been clocked at speeds half again as fast. In a typical example, Ranger Tim Duncan issued three tickets to motorists traveling 87mph, 70mph, and 80mph within a period of two hours on a single day in November 2001. Speeds in excess of 90mph are periodically detected.²⁷² Rangers also issue tickets for other typical traffic violations, such as accidents and

²⁷² Incidents MOJA0100000155, MOJA0100000156, MOJA0100000158, MOJA0100000047, in file “Case Incident Reports 2001;” Incident MOJA9900000149 in file “Recent - Review Case

disregarded stop signs, as well as more park-related violations such as “travel off a designated route.”²⁷³ The heavy emphasis that rangers at Mojave National Preserve must place on traffic stops and other sorts of work more typical of police forces in order to ensure public safety highlights the challenge posed to the ranger corps by Mojave's urban proximity.²⁷⁴

One of the most dangerous consequences of Mojave's nearness to urban areas is the use of the park by illegal narcotics manufacturers and drug dealers. Manufacture of illegal methamphetamine, often referred to as “crystal meth,” has posed a considerable problem to the park. Meth is a synthetic drug, and the manufacturing process emits strong odors, which make labs easily detectable in urban areas. Abandoned sites in rural areas with little supervision but easy access to urban markets pose ideal conditions for methamphetamine manufacturers. Mojave's abandoned mine sites contain buildings and debris, which help meth manufacturers hide evidence of their activities. People associated with illegal drugs are usually heavily armed, and pose a substantial threat to the personal safety of law enforcement rangers or park visitors who come into contact with them.

On three separate occasions in October and November 1999, Ranger Sean Isham discovered large cardboard boxes with empty pseudoephedrine bottles. Twice these were found near the junction of Nipton Road and I-15, and once along a primitive road on the south side of Clark Mountain. Some human hairs were taken from the boxes as evidence. The presence of empty bulk pseudoephedrine containers suggests the presence of meth labs in the area, as over-the-counter pseudoephedrine can be cooked into crystal meth.²⁷⁵

Incidents,” Chief Ranger's office, MOJA HQ, Barstow CA.

²⁷³ Incident MOJA9900000155 in file “Recent - Review Case Incidents;” Incidents MOJA0100000015, MOJA0100000029, in file “Case Incident Reports 2001,” Chief Ranger's office, MOJA HQ, Barstow CA.

²⁷⁴ Author interview with Sean McGuinness, via telephone, December 4, 2002; anecdotal information from Tim Duncan, in conversation with author, February 9, 2002, Kelso California.

²⁷⁵ Case report MOJA9900000146, Folder “Recent - Review Case Incidents,” Chief Ranger's Office Files, Mojave National Preserve HQ.

Even more problematic than the use of abandoned mine sites by drug producers is the potential for mobile meth labs in the Preserve. In April 2001, an NPS ranger contacted a confidential informant who had observed on several occasions a suspected mobile methamphetamine lab, contained in an old Ryder truck. The informant also made note of the unsavory types that were associated with the truck, and pointed out that they had motorcycles and were heavily armed, with shotguns, rifles, and perhaps handguns as well. The same informant had seen what might have been a nighttime landing at the Lanfair airstrip, and overheard discussions about “tak[ing] a load to Las Vegas.” The NPS ranger investigated the airstrip and found tire tracks, several weeks old, including some that might have come from a light plane. Clearly, the possibility of drug trafficking and methamphetamine manufacturing provides an edge of danger to park employees and visitors.²⁷⁶

Park rangers routinely patrol abandoned sites that might be attractive for drug producers, and have discovered several methamphetamine labs as a result. In February 1998, rangers on patrol found activity at Rainbow Wells that looked like a drug lab. Mojave received help from Death Valley NP and the Drug Enforcement Agency in setting up surveillance of the site. Some two weeks later, authorities raided the site early in the morning and caught Eric Wilson and Timothy Matthews in the act of producing crystal meth. The agents seized an arsenal of weapons as well as methamphetamine worth \$75,000. Convicted in federal court, Wilson received a nine-and-one-half-year sentence, while Matthews waits out a twenty year sentence, neither with the possibility of parole.²⁷⁷

In February 2001, Rangers Kirk Gebicke and Chris Jefferson noticed new locks on buildings at the New Trail Mine during a routine patrol of the area. The next day, as snow began to fall, Gebicke and Tim Duncan went to saw off the locks, and met four men in a pickup truck leaving the New Trail Mine. The rangers searched their vehicle, but found only camping

²⁷⁶ Case report MOJA0100000038, Folder “Recent - Review Case Incidents,” Chief Ranger’s Office Files, Mojave National Preserve HQ.

²⁷⁷ “Mojave NP (CA) - Drug Lab Arrests,” *National Park Service Morning Report* March 6, 1998; Press Release, “Clandestine Drug Lab Found in Mojave National Preserve,” March 16, 2001.



Illustration 15 - NPS Rangers caught two suspects manufacturing methamphetamine in these buildings at the New Trail Mine. (Photo by Eric Nystrom, 2001.)

equipment. The suspects also yielded a key that fit the padlocks the quartet had installed on mine buildings. The rangers proceeded to the mine, where they found considerable evidence suggesting the presence of an illegal drug lab at the site. NPS rangers guarded the area until the arrival of county drug task force members the following day. A subsequent search of the area revealed a considerable amount of drug-making equipment and ten gallons of pure methamphetamine oil, valued at more than \$50,000, ready to be converted into the drug's final crystalline form. The area cost \$20,000 to clean up, and in 2002, the case remained under adjudication.²⁷⁸

²⁷⁸ Press Release, "Clandestine Drug Lab Found in Mojave National Preserve," March 16, 2001; Incident MOJA0100000025, file "Case Incident Reports 2001," Chief Ranger's office, MOJA HQ, Barstow CA.

Vandalism and damage of park resources occurs with alarming frequency in the desert. Vandals deface or steal prehistoric rock art, shoot wildlife, buildings and signs, and sometimes burn historic structures to the ground. Unintentional damage due to negligence also causes problems. The Park Service can use a recent statute, known correctly as the “Park System Resources Protection Act” and informally as “19jj” after its U.S. Code section number, to recover money to repair park resources damaged by individual or collective action. The 19jj statute has been used at Mojave National Preserve to exact damages for wilderness road violations, resource damage due to airplane crashes, and all other incidents of deliberate or unintentional damage to park resources.²⁷⁹

Petty vandalism, conducted by parties unknown for no apparent reason, makes up the bulk of deliberate damage to park resources, but the park has to handle deliberate destruction of the environment for economic gain as well. In 1999, a company constructed a microwave tower just south of I-40, but required access to the site over park roads. After appropriate compliance documents were completed, the Park Service issued a special use permit, but stipulated that “no heavy commercial trucks, conveyances, or related construction equipment” was allowed, and that no improvements, such as blading, were permitted on the access road. In September 2000, park rangers noticed that the road had been bladed *and* widened several feet, which prompted the park to revoke the special use permit. The company did not admit wrongdoing at first and battled NPS and BLM attempts to exact restitution and cancel the project, but the DOI agencies prevailed in mid-2002.²⁸⁰ In late July and early August 2001, a telephone company widened and graded more than three miles of road along a right of way to a microwave tower in the park, and built a new building at the site without NPS clearance. More than one mile of this road was a cherry stem into a designated wilderness area, and located in critical desert tortoise habitat. The Park Service is seeking compensation for the damages under 19jj.²⁸¹

²⁷⁹ See 16 U.S.C. 19jj.

²⁸⁰ Folder “[Name Withheld] Road Grade 19jj Case - ICT,” Chief Ranger’s office, MOJA HQ, Barstow CA.

²⁸¹ Folder “[Company Name Withheld] Road Grade Building Case,” Chief Ranger’s office, MOJA HQ, Barstow CA.



Illustration 16 - Mojave National Preserve has to face typically urban problems such as this graffiti on Kelbaker Road. (Photo by Eric Nystrom, 2001.)

Mojave National Preserve has had to battle what is traditionally an urban problem - graffiti. Some visitors are amused by the spray-painted graffiti in the middle of Kelbaker Road south of Baker. In 2002, Ranger Bob Conway apprehended four suspects shortly after they allegedly used blue spray paint to cover some boulders with graffiti inside the Preserve. In cases such as these, the Park Service again can use the 19jj statute to get restitution for the full cost of the damages.

Like many large parks, the Preserve has faced environmental damage resulting from the crash of a small airplane and the subsequent search and salvage operation. On March 8, 2000, a Piper Supercub flying from Las Vegas to Chino, California, was reported missing. The pilot, Robert Bogle, was the only occupant, and was last seen by a companion aircraft near Primm,

Nevada. San Bernardino County Sheriffs, the Civil Air Patrol, and the California Highway Patrol searched for the missing plane and found it in the Ivanpah Valley, about 3 miles inside park boundaries. The next day, the plane wreckage was investigated by the sheriff's office, the county coroner, and the National Transportation Safety Board in helicopters and ground vehicles. The pilot's body was recovered, and on March 13 a salvage company hauled away what was left of the plane. During the recovery efforts, three helicopters landed at the site, and at least two vehicles drove straight to the site from Morning Star Mine Road, a distance of more than a quarter of a mile.

At the crash site, on a gently sloping bajada near the Morning Star Mine, there was a small burn and debris field, measuring only 75 feet by 39 feet. The crash burned 4 yuccas, 3 small barrel cacti, and two large creosote bushes. Some hydrocarbons and traces of heavy metals contaminated the soil, but did not extend down farther than about one foot. During the recovery/salvage process, vehicles drove over many plants, although reports indicate that the drivers may have tried to miss the biggest ones. There was no apparent wildlife damage, although the area is designated critical habitat for the desert tortoise. Total cost of replacement of the plants damaged was \$4,760, and the projected total costs of the operation to restore the area, including minor landscape recontouring and administrative time, was \$24,691.45. The NPS decided to pursue a claim under 19jj for the amount from the insurer of the airplane, but as of this time the claim is still under adjudication. The Ivanpah airplane crash highlights the appropriate use of the 19jj statute by the Preserve to receive compensation for all damages to park resources, no matter how noble the cause may have been.²⁸²

The Union Pacific Railroad (UP) bisects the Preserve, and brings special challenges to law enforcement rangers. The railroad is a target for vandals, and after the terrorist attacks of September 11, 2001, rangers paid even closer attention to any unusual activity near the railroad. Park rangers assist railroad police with any problems they might have along the Preserve portion of the UP line, and railroad personnel reciprocate by informing the rangers about any suspicious

²⁸² File (Binder) "Morning Star Airplane Crash, Case MOJA00038," Chief Ranger's Office, MOJA HQ, Barstow CA.



Illustration 17 - The Union Pacific Railroad bisects Mojave National Preserve and creates unusual challenges for park rangers. (Photo by Eric Nystrom, 2002.)

activity they might see. This positive, though informal, working relationship caused NPS rangers to assist railroad police apprehend thieves in the park. Burglars frequently boarded freight trains in the UP yards at Yermo, and broke into shipping containers while the train was moving. When the heavy freights slowed as they ascended the Cima grade, the bandits threw merchandise from the train. Accomplices collected it, loaded the contraband into waiting trucks, and hauled it away. The railroad lost more than one million dollars a month at one point from this kind of theft, but heavy enforcement by UP police and park rangers put a stop to the practice.

Rangers also have to worry about the railroad as a catalyst for other problems. On March 4, 2001 park personnel responded to a fire blazing in a pile of debris near the tracks. Footprints

at the site suggested that the fire was deliberately set, and that the perpetrator escaped by jumping on a train climbing the hill.²⁸³ This incident stands as an illustration of how the presence of the railroad can encourage undesirable activity in the park.

The trains themselves pose a hazard to the Preserve. Shortly before noon on January 12, 1997, Union Pacific westbound freight train #6205 lost control coming down the Cima grade and overturned at the Hayden siding. Trains ordinarily utilize engine braking to keep speeds below 20 miles per hour coming down the hill, but this time the engineer accidentally shut off the diesels. Air brakes, ordinarily sufficient to stop such a train on a normal grade, did little to slow the three locomotives and seventy five hopper cars full of bulk corn on the steep hill. The train reached 72 miles per hour just before sixty eight of the train's cars derailed and spilled their contents along the tracks. Ranger Brian Willbond described the scene as "a fantastic pile of rubble fifty feet high, with metal and corn everywhere." The railroad hired a salvage company to clean up the mess, but some loose corn was left behind, leading park personnel to worry about the effect of the increased food supply on the raven population. The wreck also suggested how much worse things could have been. "Tank cars are designed to survive a crash, unlike those boxcars," Ranger Tim Duncan observed, "but that doesn't mean they *would*." In the wake of the crash, the National Transportation Safety Board highlighted the danger that the super-steep downhill grade at Cima posed to heavy modern trains. In the event of a failure of the engine braking system on a train, the engineer has very little time to apply the air brakes before the train picks up so much speed that it cannot be stopped. The incidents prompted the railroad to make procedural changes to hopefully give train engineers more time to stop if an engine failure occurs, but the potential for future problems remains along Cima Hill because of the steep track slope.²⁸⁴

²⁸³ MOJA case #01-26, File "Case incident reports 2001," Chief Ranger's office, MOJA HQ.

²⁸⁴ National Transportation Safety Board, *Derailment of Union Pacific Railroad Unit Freight Train 6205 West Near Kelso, California, January 12, 1997*, Railroad Accident Report, PB98-916301 (Washington, DC: National Transportation Safety Administration, February 6, 1998); Chuck Mueller, "Freeway Closures Turn Baker into Boomtown," *San Bernardino County Sun* January 15, 1997; Tim Duncan, conversation with author, February 9, 2002, Kelso California.

Mojave National Preserve sits between Interstate 40 and Interstate 15, a circumstance of geography that has direct and indirect implications for the park. The NPS has mutual-aid agreements with the San Bernardino County Sheriff, the BLM, and local fire and emergency medical service agencies. Park personnel response to highway incidents pose a substantial drain on NPS resources, although the relationship also benefits the park when emergencies occur inside its boundaries. Cargo traffic on the freeways poses a potential threat to the park's landscape. If a vehicle drove off of the right shoulder of northbound I-15 or westbound I-40, the damage would be within park territory. So far, however, no incidents of damage to park lands have taken place in this fashion.

Easy freeway access was an indirect catalyst for one of the most significant crimes Mojave law enforcement rangers have faced to date. From April to August 1995, Gene LeFave and his son, Louis LeFave, dumped ninety-seven drums of hazardous waste in the desert on NPS, BLM, and privately-owned land, rather than pay the \$1,000 per barrel cost for legal disposal. Under cover of darkness, the LeFaves brought 55 gallon drums of waste products, including solvents, rubber, and adhesive glues, from their Las Vegas-based epoxy manufacturing business to a series of sites off Nipton Road, and pushed the barrels out of trucks onto the ground, where some split open. Most of the six sites used by the LeFaves in Mojave National Preserve were in washes, where the waste could have contaminated water supplies. Some small wildlife was found dead, stuck in the residue, by CDF&G officials. An interagency team, including federal and state law enforcement officials, apprehended Louis LeFave and a seventeen year old boy in the process of dumping more waste. In federal court, Louis LeFave was fined \$40,000 and sentenced to two and one-half years in prison, while his father, Gene LeFave, was fined the same amount and sentenced to almost four years in jail. The Park Service and BLM spent more than \$170,000 cleaning up the dump sites. Chief Ranger Bill Blake, Martin, and Ranger Eric Inman later accepted the DOI Secretary's Award on behalf of Mojave National Preserve for the park's role in the investigation and prosecution of the dumping case.²⁸⁵

²⁸⁵ Don Holland, "Father, Son Get Prison Time For Illegal Dumping," *Desert Dispatch* October 29, 1996; "Man Gets Prison Term For Illegal Dumping," *Las Vegas Review-Journal* October 27, 1996; Mary Manning, "Las Vegas Draw Prison Time For Illegal Dumping," *Las Vegas*

“Operation Sweet Success” may prove to be just as momentous. Since at least the mid-1980s, an organized group of Hispanic workers have illegally collected barrel cacti from federal lands in the desert, including Mojave National Preserve lands near Nipton. These cacti were cut into pieces and sold to two competing companies in the Los Angeles area, where they were made into biznaga, a form of cactus candy popular in Mexico. A Department of the Interior special investigator was in charge of the case against the cactus poachers, and was assisted by personnel from several agencies, including Mojave National Preserve. Ranger Tim Duncan participated in raids on the candy facilities in December 1999, and had earlier helped detain suspects found harvesting cacti on BLM land near Clark Mountain. Agents in charge of the case estimate that some 15,000 mature barrel cacti were removed from federal lands in the desert at the behest of the cactus poachers, who knew their activity was illegal but bragged that they could not be touched because of powerful and influential friends. At a replacement cost of \$50-\$200 per cactus, depending on size, the final cost in environmental damage alone will be substantial. The case is still in adjudication, but the Park Service intends to seek restitution under the 19jj statute for damage to park resources.²⁸⁶

A history of less restrictive management of the desert the BLM posed special challenges to park rangers once the lands transferred to Park Service control. A substantial problem has been posed by off-road vehicle and all-terrain vehicle users in the park. Some off-road users, such as careful four-wheel drive groups, impact the desert only lightly and take pains to minimize ecological damage. Other all-terrain vehicle users, especially some motorcycle riders, have caused great damage in parts of the California desert by riding aggressively across undisturbed land. The BLM acknowledged this fact in the 1980 Desert Plan by setting aside

Sun October 30, 1996; Gene Shlotto, “Man Gets Probation for Dumping Waste,” *Press-Enterprise* March 3, 1997; “A Federal Grand Jury Returns a 21-Count Indictment in Illegal Transporting and Dumping of Hazardous Waste Case,” *Baker Valley News* October 20, 1995; “Man Gets 46 Months Over Toxic Waste,” *Los Angeles Times* October 27, 1996; Mary Manning, “Family Business Faces More Dumping Problems,” *Las Vegas Sun* August 28, 1997; Joe Schoenmann, “Las Vegas Father, Son Face Federal Charges in Waste Dumping Case,” *Las Vegas Review-Journal* August 28, 1997.

²⁸⁶ Binder “Operation Sweet Success - Barrel Cactus Theft - USDI - NPS - DEVA98-00594,” binder 1 of 2, Chief Ranger files, MOJA HQ, Barstow CA.

small portions of the desert as “open play” areas for OHVs, and setting other areas aside as off limits to off-roaders. Most of the area that became Mojave National Preserve was open to use by off-highway vehicles, as long as the machines had a “green sticker” and stayed on established trails or in washes. NPS policy permitted only street-legal vehicles to operate in the park, thus excluding a large number of motorcycles, ATVs, and dune buggies. Nonetheless, ATV use in the park continues, albeit at far lower levels than before. In November 1999, Ranger Sean Isham issued four citations for ATV use in the park in less than one week. The OHV problem is compounded by the CDPA’s decision to establish the park’s western boundary, a wilderness area, adjacent to BLM’s Razor open play area. As a result, vehicles often stray, accidentally or otherwise, from the open area into the Preserve’s Soda Lake wilderness. Thanksgiving weekend traditionally saw heavy use of the play area by OHV users. Mojave responded by bringing in SET teams of rangers from other parks to patrol the boundary. The first SET team secured the area in 1994, and others did so in succeeding years, although the problem diminished in severity as users were educated about the regulations. In a typical example, five rangers from Lake Mead NRA patrolled the area during the 1999 holiday weekend, while Mojave’s full ranger force monitored the rest of the park. The SET team issued five citations and many warnings to errant OHV users.²⁸⁷

Sometimes ATV use causes other problems. In November 2000, two boys, 11 and 14 years of age, were riding ATVs on private land near Fourth of July Canyon. They collided and were both seriously injured, suffering broken bones, a dislocated hip, and possible spinal injuries as well. NPS rangers were the first to arrive on scene, and stabilized the victims for over 20 minutes until medical personnel could arrive. The two were both flown by air ambulance to Las Vegas hospitals. The large distance from the Preserve to the nearest medical care in Las Vegas

²⁸⁷ Incidents MOJA9900000146, MOJA9900000155, MOJA9900000152, in folder “Recent - Review Case Incidents,” Chief Ranger files, MOJA HQ; Mary Martin letter to Don and Mary Enlow, N1623, February 4, 2000, in binder “Read File FY00” tab “Resource Management,” MOJA HQ.

means that NPS first responders bear substantial responsibility for initial medical care in case of emergencies in the park.²⁸⁸

Desert users acting according to local custom and less restrictive BLM rules occasionally found themselves in violation of NPS regulations against firearms. Under BLM, firearms were allowed in the desert, and casual possession and use of guns was common in the area. After the shift to NPS management, firearms were only allowed in the park during hunting season, and only if the carrier was also in possession of a valid hunting license. While overall firearm use has been reduced significantly from pre-park levels, not all visitors received the message. In 1999, Ranger Duncan stopped several boys riding ATVs inside the park. When he followed them back to their campsite, he spoke with the adult in charge, and asked if he had any guns with him. The man told Duncan that he had a 9mm Glock pistol with him, which the ranger requested, and kept for the remainder of the interview. Before leaving, Duncan informed the gentleman of the regulations prohibiting firearms in the park, then returned the gun and wished him a nice day. This incident illustrates both the commonality of firearms among park users, and the use of a tolerant and understanding attitude by park rangers to educate patrons who may not be familiar with the differences between NPS and BLM regulations.²⁸⁹

This system of balanced response is not merely the personal attitude of one humanistic ranger but is instead a conscious, though informal, policy emanating from Superintendent Martin and Chief Ranger McGuinness. Realistically, Martin and McGuinness understood that the move from low-key BLM control to NPS management, which appears intensive in comparison, would be quite a shock for desert users. Accordingly, the rangers were instructed to be long on warnings and short on citations at first. This “long leash” would then grow progressively shorter over the years as users adjusted to the Park Service’s rules and regulations. The policy, though

²⁸⁸ Kirk Gebicke and Chris Burns, Incident Reports, faxed copy in possession of author.

²⁸⁹ Incident MOJA9900000150, in folder “Recent - Review Case Incidents,” Chief Ranger files, MOJA HQ, Barstow CA.

informal, seems to be working well, and long-time rangers suggest that they have far fewer problems now with firearms and other violations of NPS policies.²⁹⁰

Rangers also help the public in ways more in line with the traditional image of the helpful and friendly Park Service. In March 1998, a twelve-woman group of Sierra Club campers were stranded at Mid Hills campground by an unusual rain and snowstorm that buried their street vehicles. Ranger Tim Terrill, on patrol through the area, found the campers. “All were well, but most sincerely wished to be elsewhere, particularly somewhere warmer,” noted a local newspaperman. Terrill and other NPS personnel, some using their personal vehicles, helped ferry the stranded visitors to Baker, where Interpretive Ranger Kirsten Talken helped them find rooms and food. In all, suggested a local reporter, “a disaster had been averted by quick action by the Park Service.”²⁹¹

Hunting, an unusual practice in national parks outside Alaska, was authorized in Mojave National Preserve by the CDPA, and is managed jointly by the park and the California Department of Fish and Game. In the United States, historic precedent has established that the state has control over wildlife on public land, even federal land, but the Park Service’s Organic Act reserves control of wildlife to the agency inside national parks. The California Desert Protection Act explicitly reaffirmed that the California Department of Fish and Game would regulate hunting in Mojave National Preserve. As a result, both California State game wardens and NPS rangers enforce the hunting rules set by the state. Rangers also enforce regular park regulations, such as camping restrictions, on hunters in the Preserve when necessary, since game wardens do not have the authority to address violations of NPS rules.²⁹²

An administrative adaptation helps Mojave National Preserve’s resource and visitor protection rangers work most effectively, despite their small numbers and the size of the park.

²⁹⁰ Author interview with Sean McGuinness, December 4, 2002; author’s notes of conversation with Bob Conway, February 8, 2002, MOJA HQ, Barstow CA; corroborated by Tim Duncan, conversation with author, February 9, 2002, Kelso CA.

²⁹¹ Mike Dougherty, “The Snowbound Ladies of the Sierra Club,” *Pahrump Valley Gazette* April 9, 1998.

²⁹² Author interview with Sean McGuinness, December 4, 2002.

Rather than divide the rangers into rigidly defined districts, each of the three full time field rangers is responsible for a “patrol area,” consisting of approximately one third of the park. Each ranger is responsible for knowing the backcountry and problem sites of his designated area intimately, and must be able to notice any changes that occur and note use patterns.²⁹³ If rangers working outside their designated patrol area spot something unusual, they share the information with the appropriate colleague. This “patrol area” structure works well. Because of low staff levels, it is common to have at least one patrol area without a ranger on duty at any given time. Rather than leave that area of the part without a ranger presence, the on-duty rangers scout the heavily used features of the park, no matter what patrol area includes them. In their own designated areas or elsewhere as necessary, rangers patrol wilderness on foot or, beginning in April 2002, on horseback. Given the visitation patterns of the Preserve, with high use of paved roads and very low use of the backcountry, coupled with low ranger staffing levels, the “patrol area” system is a flexible and intelligent response to a thorny problem.²⁹⁴

Fire is a major threat in Mojave National Preserve. Skeptics unfamiliar with the desert might wonder if anything exists that can burn, but a quick tour of the park would dispel such notions. The Mojave ecosystem is not very well adapted to fire, and would take a long time to recover from even a small conflagration. The presence of exotic grasses, which came to the desert during the late nineteenth and early twentieth century grazing operations, contribute to fire concerns. These exotic grasses burn rapidly and ignite very easily, and their perennial growth pattern allows fuel loads to build up rapidly, especially if the grasses are not being grazed by cattle or other foragers. Historically, range fires were uncommon, because grazing prevented fuel loads from becoming dense enough to spread fire rapidly.

BLM established a fire center at Hole-in-the-Wall sometime after systematic development of the area began in the 1960s. Equipped with rugged heavy wildland fire trucks, the Hole-in-

²⁹³ In this case, I use the male pronoun because as of 2002, all Mojave National Preserve rangers in charge of a patrol area are male.

²⁹⁴ Author’s notes of conversation with Bob Conway, February 8, 2002, MOJA HQ, Barstow CA; Author’s notes of conversation with Tim Duncan, February 9, 2002, Kelso CA; Author interview with Sean McGuinness, December 4, 2002.

the-Wall center, staffed only during the summer fire season, defended a huge swath of BLM desert. After passage of the CDPA in 1994, the Hole-in-the-Wall facility was located on NPS land, but BLM had neither the desire nor the funding to build a new separate facility for its fire forces. The two agencies agreed to jointly manage the Hole-in-the-Wall center. NPS and BLM each provided one fire engine and half of the firefighters, shared fiscal responsibility, and had a single joint manager for both programs. In the first years after the passage of the CDPA, two BLM fire employees played important roles in the Preserve's fire program. Ken Smihula, who worked for BLM, served as Mojave's acting Fire Management Officer (FMO), with support and guidance from Joshua Tree National Park's FMO. James Argon, engine captain for the BLM crew, assisted the Preserve with the details of getting a new fire program in place. Between 1995 and 1999, the fire crews averaged 100 wildland calls per year, on both BLM and NPS land, and an additional 150 calls per year for traffic accidents, mutual aid responses, medical incidents, and non-wildland fires. After the park received additional funding in 2001 to increase the level of emergency protection, the park was able to retain a reduced crew, subject to furlough, throughout the whole year, rather than only during the peak summer season. The importance of the Hole-in-the-Wall fire center was highlighted by NPS plans to replace the old facility with a larger one in the same location. Mojave's fiscal year 2002 budget included more than \$1.5 million for the project.²⁹⁵

The fire crew at Hole-in-the-Wall is the main source of emergency protection for Preserve resources, but by no means the only one. All law enforcement rangers in the Preserve are also trained as emergency medical technicians.²⁹⁶ Additionally, Mojave NP has created mutual-aid agreements with all of the emergency response agencies located near the park, and San Bernardino County Fire Department routinely responded from Baker to incidents in and near the Preserve, especially for fires larger than the BLM and NPS wildland trucks can handle. The

²⁹⁵ Author interview with Sean McGuinness, December 4, 2002; Mojave National Preserve, "Major Accomplishments for the First Five Years (1994-1999)," 3; "Mojave National Preserve, "FY 2000 GPRA Accomplishments," 2; Mojave National Preserve Press Release, "Fiscal Year 2002 Budget and Annual Performance Plans for Mojave National Preserve are Available for Public Review," December 31, 2001.

²⁹⁶ Author interview with Sean McGuinness, December 4, 2002.

future of mutual aid in the area of the Preserve, however, may rest disproportionately on the shoulders of the Park Service. In July 2002, San Bernardino County Fire Department removed their engine that was stationed at Baker, because inmate crews that had been manning the rig were no longer available. As a result, the Mojave National Preserve crew was forced to respond more frequently to emergencies from Baker to the Nevada state line, adding an additional drain on park resources. Months later, a series of stopgap measures reopened the station temporarily, but the long-term situation remained tenuous.²⁹⁷ One of the single most important structures in the park, the Kelso Depot, received two fire hydrants and hose boxes during fiscal 1998 as a measure of fire protection, and regular park staff were trained on how to use the new equipment if a fire broke out at the building. The fire crew has also served as a source of labor for park projects. For example, the Mojave fire crew, with supervisors from Lake Mead NRA, tackled exotic tamarisk removal at springs in Mojave, Death Valley NP, and Lake Mead in 1997.²⁹⁸

Initially, Mojave National Preserve's fire programs were managed by Smihula, in cooperation with Joshua Tree NP's Fire Management Officer. Without a fire management plan in place, the Preserve conducted a policy of total suppression of wildfires in the park, as required by Park Service policy. Progress was slow on a fire management plan for the Preserve until Kristy McMillan was hired as Mojave's FMO in November 1999.²⁹⁹ Other smaller safety plans, such as the park's aviation safety plan, were created in the meantime. In terms of fire preparedness, the Preserve has been lucky – as of 2002, no major wildland fires had swept the land and threatened park resources.

²⁹⁷ Gary George, "Deadly Highway Becomes Deadlier," *Victorville Daily Press*, July 10, 2002; Scott Van Horne, "Postmus, Fire Officials Butting Heads," *Desert Dispatch* September 13, 2002; David Schwartz, "Training for Firefighters From Baker's Prison to Resume," *Desert Dispatch* November 20, 2002; Christina L. Esparza, "Baker Fire Takes Hit in Budget," *Desert Dispatch* March 12, 2003.

²⁹⁸ Mojave National Preserve, "Superintendent's Annual Report for FY98," 8; Mojave National Preserve, "Report of Accomplishments, October 1, 1996 to September 30, 1997," 3.

²⁹⁹ Mary G. Martin letter to Kristy MacMillan [sic], October 15, 1999, in binder "Read file FY00" tab "Administration/Personnel," MOJA HQ.

Interpretation

While the law enforcement rangers and park firefighters provide protection for both visitors and resources, interpretive rangers are charged with explaining those resources to the visiting public. Interpretive programs at Mojave National Preserve face special challenges that stem from the nature of the park itself. The single most important factor shaping interpretation in the Preserve is the desire of the public, codified in the General Management Plan, to have a “sense of exploration and discovery” in the park. This means fewer signs and less development, especially off paved roads. With fewer signs giving visitors information, the interpretive focus is instead directed toward portable media, such as brochures. During BLM management of the area, a “sense of discovery” was a clearly stated goal of bureau interpretive programs for the East Mojave National Scenic Area. The same phrase was used in the earliest articulation of BLM management philosophy for the EMNSA in 1981. The “sense of discovery” was a useful concept for several reasons. BLM did not have and could not expect the kinds of resources for interpretation that are taken for granted at most national parks, so a minimum of signs and a “sense of discovery” were easier to achieve given extant financial resources. This laissez-faire interpretive approach also fit appropriately with the other elements in BLM’s multiple use mission. If visitors were required to be at least partially self-reliant, fewer intrusive spectators would result, and other users of the landscape would be less likely to be disturbed. Those other users of the land, especially ranchers and miners, still held much of the power in the BLM, and the less antagonistic they were toward BLM’s new recreation programs, the better. A “sense of exploration and discovery” continued, deliberately or otherwise, as the Park Service’s approach to the area after passage of the California Desert Protection Act in 1994. At first, a lack of funding precluded other systematic approaches, but even after resources increased, it was clear that visitors preferred the Preserve to remain underdeveloped. The Advisory Commission, among others, helped steer the park in that direction during the formulation of the General



Illustration 18 - The Spanish-Revival style Kelso Depot is an architectural landmark in the heart of Mojave National Preserve. (Photo by Eric Nystrom, 2001.)

Management Plan, and specific language to that effect was inserted in the preferred alternative, which was eventually adopted by the park.³⁰⁰

This approach, combined with a lack of dollars for interpretation programs, meant that the landscape of the Preserve has not seen much development for interpretive purposes since the Park Service received the territory. As of 2002, of four hiking trails in the Preserve, only one was created by the Park Service; the only point inside the park staffed with interpretive rangers on a regular basis, the visitors' center at Hole-in-the-Wall, was built by BLM (as were the two

³⁰⁰ Author interview with Dennis Schramm, March 26, 2002, Disc 2; Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan*, 72.

campgrounds nearby, the only ones in the Preserve); and some BLM interpretive signs were still in place in remote locations.³⁰¹

Beginning in 1999, interpretation began to receive more attention at Mojave National Preserve. Chief Ranger McGuinness requested funding for the development of an interpretive plan, and the Pacific West Region identified it as a major priority. Sam Vaughn, a planner from the Denver Service Center, was detailed to lead the project, in cooperation with Lynn Nakata, of the Pacific-Great Basin Support Office. Vaughn led several meetings to receive input, beginning in April 1999 and continuing through March 2001. During these meetings, Vaughn, Mojave staff, and community members worked to identify interpretive themes and recommendations of ways of putting those themes into practice. At the same time, interpretation personnel discussed plans for the Kelso Depot. Since the complex exhibits slated for the Kelso Depot were planned simultaneously with the park's Long Range Interpretive Plan (LRIP), the park's major interpretive presence will closely align with the LRIP's goals.

The Long Range Interpretive Plan, published in penultimate draft form in mid-2001, identifies six primary interpretive themes, describes prominent park resources, and lays out preferred interpretive tools. The primary interpretive themes identified by the plan are deliberately broad, and encapsulate almost everything that makes the Preserve a special place.³⁰² Park resources described in the interpretive plan include all of the classically awe-inspiring sites of Mojave National Preserve: specific wonders such as the Cima Dome, Kelso Dunes, and Cinder Cones areas, and vast landscapes like the Lanfair Valley and Soda Lake. The LRIP identified a "sense of discovery and exploration" as one of several goals for visitors, another pledged that one function of Mojave's interpretive program was to orient visitors to the unusual desert environment. The plan called for interpretive programs and media only in the few

³⁰¹ Author interview with Mary "Jeff" Karraker, Barstow, CA, March 28, 2002; Author interview with David Moore, March 26, 2002, Disc 1.

³⁰² In summary, the themes are concerned with the variety and transitional habitat found in the park; the geology of Mojave; diverse and specially adapted flora and fauna; the fragility of the desert; Mojave's extensive historical and cultural resources; and Mojave's vastness, remoteness, and solitude. Mojave National Preserve, "Long Range Interpretive Plan - Draft," July 8, 2001, 16-17.

existing developed areas in the park, and for wayside exhibits to be kept to a minimum outside pulloffs and trailheads.³⁰³ When plans come to fruition in 2003, the Kelso Depot will become the focal point of interpretive activities in Mojave National Preserve. The depot was still operational and open for business when the East Mojave National Scenic Area was established in 1980, and between its closing in 1985 and its eventual acquisition by BLM in 1992, one of the chief arguments for the depot's salvation was its suitability as a visitors' center. BLM never had enough funding or time to convert the building into the center that they wanted, but the bureau made stabilization of the depot a priority. In 1993, the agency repaired the roof, constructed a fence around the building, repaired damaged stucco, and installed plexiglass over the windows, which ensured the continued structural integrity of the depot.³⁰⁴ The Park Service made the building's conversion into a functioning visitors' center an articulated priority in the General Management Plan. With help from Jerry Lewis, the Congressman who tried to kill the Preserve with a dollar budget in 1995 but who was also instrumental in saving the depot from the wrecking ball in 1985 and repairing the building in 1993, the park was able to secure over five million dollars in FY01 funding to restore the building. Lewis's deep concern with the history of the eastern Mojave benefited the park in the push to restore the depot. Because of extenuating circumstances, the restoration was postponed several times. On May 31, 2002, the park finalized the contract for restoration with Pacific General, Inc., a contractor experienced with NPS restoration projects, and actual work on the depot began in July 2002.³⁰⁵

One potential problem with the plan to restore the depot was the building's location in a floodplain. Executive Order 11988 directed federal agencies to avoid development in and modification of floodplains when possible. Since the General Management Plan alternative preferred by the National Park Service included restoration and stabilization of the depot,

³⁰³ "Long Range Interpretive Plan," 13-15.

³⁰⁴ Gordon Chappell, et al., *An Oasis for Railroaders in the Mojave: The History and Architecture of the Los Angeles and Salt Lake Railroad Depot, Restaurant and Employees' Hotel at Kelso, California on the Union Pacific System* (California: U.S. Department of the Interior, National Park Service: 1998), 187-188.

³⁰⁵ Mojave National Preserve Press Release, "Restoration of Kelso Depot to Begin," June 7, 2002.

Mojave planners created a Floodplain Statement of Findings for the Kelso Depot and included it with both draft environmental impact statements issued by the planning team. Additionally, a copy was included along with the official Record of Decision for the General Management Plan, signed by NPS Pacific West Regional Director John Reynolds in late September 2001.³⁰⁶

The document noted the high risk of damage if the existing levee were to erode or vanish. Computer models showed that if flood waters broke through the levee along the Kelso-Cima Road to the east, the downhill slope and the railroad berm would serve to channel the water straight at the depot at high speed. The Park Service proposed to raise and “armor” the levee, to enable it to withstand greater floods with less likelihood of giving way. Furthermore, the plan called for regular maintenance of the levee and a reinforced drainage channel on the north side of the levee to help prevent small floods from eroding the berm. Finally, an early warning system would be created in consultation with the National Weather Service to provide park employees and visitors at the depot time to escape a threatening flood.³⁰⁷

Not all of the traditional conservation community was supportive of the plan to restore the depot as a visitors' center. During public comment on the General Management Plan, the National Parks Conservation Association and other commentators were not in favor of the plan to fully restore the building. They believed that such funds should instead be spent on resource protection, acquisition of private lands inside the park, and other more pressing issues. In their view, the many threats to the ecological integrity of the park, including grazing in desert tortoise habitat, should have been a higher priority than providing services to visitors and fully restoring one particular building.³⁰⁸

³⁰⁶ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

³⁰⁷ National Park Service, “Final GMP Record of Decision,” accessed May 2, 2002, <http://www.nps.gov/moja/rod&fp.htm>.

³⁰⁸ Mojave National Preserve, *Comments and Responses on the 1998 Draft Environmental Impact Statement and General Management Plan*, July 2000, 58-59; Mojave National Preserve, *Abbreviated Final Environmental Impact Statement & General Management Plan*, 73; Author interview with Dennis Schramm, March 26, 2002, Disc 2.

The depot visitors' center is integral to Mojave National Preserve's future interpretation plans. The depot will become a focal point for park users, providing orientation to the resources of the Preserve. Permanent exhibits for the depot were planned in conjunction with the Long Range Interpretive Plan, and explicated all of the interpretive themes for the park that the latter document identified. The plan stated the situation succinctly: "rehabilitation of the Kelso Depot is crucial to the successful functioning of this new park."³⁰⁹

In the first several years of the park's existence, the interpretive staff concentrated much of its efforts on distributing information about the Preserve and on community outreach. Developing a map for park visitors was a major priority, especially because of the swirl of misinformation about the closure of roads due to wilderness designation. Alan Bowser, Public Affairs director for the Auto Club of Southern California, contacted the Preserve and volunteered his organization to pay for creation and printing of a map. On December 8, 1995, just before Marv Jensen's departure, Bowser met with park staff, including Jensen, Martin, Buono, Dennis Schramm, Talken, Moore and Reetz to make plans for the map content. Schramm and Talken worked with the Auto Club over the following months to ensure that roads depicted on the map were not in wilderness areas. The map, printed on a single 11x17 sheet, carried travel information on the reverse side. The Auto Club agreement filled a crucial gap in interpretive materials at no cost to the financially-strapped Preserve.³¹⁰

Mojave's information centers served to distribute park information and increase positive interactions with the public and desert residents. By the end of 1995, Mojave's information center at the base of the World's Largest Thermometer in Baker housed a successful operation, fueled by the hordes of passers-by on the interstate. A 1995 agreement with the Death Valley Natural History Association kept shelves stocked with books and other materials for visitors. The visitor center was well located to draw traffic from I-15, but some believed that the building, with the World's Largest Thermometer dominating an oversize frying pan complete with plastic

³⁰⁹ "Long Range Interpretive Plan," 62.

³¹⁰ The map was revised in 1999 and is still handed out by park staff, though the printing costs have been assumed by the NPS. David Moore, electronic message, January 31, 2003, copy in possession of author.



Illustration 19 - The NPS visitors' center at Hole-in-the-Wall harmonizes with its surroundings. (Photo by Eric Nystrom, 2001.)

eggs owned by local restaurateur Willis Herron, was perhaps less than ideal aesthetically. Tacky surroundings aside, the information center in Baker effectively introduced the park to a tremendous number of people.

Almost immediately after the Dollar Budget controversy ended, Mojave management explored the feasibility of locating a visitors' center in Needles, California. Planners anticipated that a Park Service center in Needles could draw a substantial stream of traffic from the I-40 freeway. Unfortunately, the historic downtown storefront location eventually chosen was too far from the freeway to garner even a fraction of the visitation received by the Baker center, a situation only exacerbated by inferior freeway signage.³¹¹ However, the Needles information

³¹¹ Comment by Mary Martin on draft, December 2002, copy in possession of author.

center served a very important community relations role. The NPS officially opened the new information center on December 13, 1997, as part of the annual Needles holiday celebration, a fact that highlighted the important outreach role. The Preserve rented its Needles office space from Bill and Nita Claypool, who had been stridently anti-park and reportedly originally suggested the Dollar Budget idea to Congressman Lewis. Years later, after extensive NPS outreach efforts, the Claypools were much more supportive of the park. James Woolsey, the interpretive ranger hired to open the Needles Information Center, can be credited with some of the change in attitude. Woolsey, a native of Twentynine Palms, California, could identify with residents of the small desert town, and they in turn could identify with him. Through newspaper articles, Woolsey made clear the potential for positive economic and social impacts that came with being a gateway community for the Preserve. The Needles information center served the community as much as the trickle of visitors who found their way from I-40.³¹²

A modular building at Hole-in-the-Wall housed BLM interpretive programs and personnel prior to 1994, and after the passage of the CDPA, has been staffed by the Park Service according to seasonal demand. Most visitors to Hole-in-the-Wall were aware that they were in a park, and are often looking for more specific recommendations, unlike visitors at the Baker center. An amphitheater, constructed originally by the BLM adjacent to the Hole-in-the-Wall center, provides the only in-park facility for larger group interpretive programs. The building itself houses a small interpretive display and a selection of items for sale. Through 2002, the information center at Hole-in-the-Wall is the most traditional Park Service-like visitors' facility in Mojave National Preserve.

³¹² Robin Richards, "NPS Considers Visitors Center in Needles," *Mohave Valley Daily News* July 4, 1996; Robin Richards, "National Park Service to Locate Information Center in Needles," *Mohave Valley Daily News* June 26, 1997; Robin Richards, "Park Service to Open Soon," *Needles Desert Star* November 5, 1997; David Drudge, "Park Service Opening Info Center in Needles," *Desert Dispatch* December 4, 1997; "Mojave National Preserve Opens Center in Needles," *Mohave Valley Daily News* December 4, 1997; Maggie McShan, "Spring Means Special Events Around Needles," *Needles Desert Star* March 11, 1998; James Woolsey, "Parks Provide Benefits," *Needles Desert Star* March 3, 1999; Comment by Mary Martin on draft, December 2002.

Wayside displays, constructed at roadside pulloffs, trailheads, and particular points of interest, are a major component of interpretation at Mojave National Preserve. Waysides require little maintenance or additional expenditures after their initial installation, a key feature in a short-staffed park like Mojave. Many wayside exhibits have been installed at key points of interest, such as the Kelso Depot, Zzyzx, and the Kelso Dunes. Preserve officials allowed some waysides installed by BLM to remain in remote areas of the park, especially if most of the information was accurate. Mojave officials typically ordered multiple copies of new interpretive displays, because of the above-average rate of replacement due to fading in the hot desert sun, as well as the occasional vandalism that seems endemic to remote locations.³¹³

Portable media, such as brochures or guides, are especially suited to Mojave National Preserve interpretive activities. Many desert users are already accustomed to utilizing guides to help them find their way through a landscape without signs. One of the most successful ongoing recreation programs in the eastern Mojave utilized a portable media approach to interpretation. Dennis Casebier and the Friends of the Mojave Road developed a mileage-keyed guidebook for users of the Mojave Road recreation trail, which was first published in 1983. The group consciously rejected placing signs along the road, instead favoring rock cairns at irregular intervals. The purpose was to force travelers to utilize the guidebook to travel the trail, with the idea that visitors educated in desert etiquette by a well-written guide would be less likely to damage resources through irresponsible and reckless behavior. The experiment proved a success, and the group later developed a four-part 660 mile loop trail known as the East Mojave Heritage Trail. This second route proved to be a source of major friction between the Friends of the Mojave Road and the Park Service when CDPA-designated wilderness severed pieces of the trail and invalidated the labors and expenditures of the volunteers. The Mojave Road Guide remains one of the most popular interpretive guides to park resources.³¹⁴

Since the creation of the park, more than thirty different brochures on a variety of topics have been created by park staff for interpretive purposes. Other interpretive brochures and trails

³¹³ Author interview with Mary “Jeff” Karraker, March 28, 2002.

³¹⁴ See chapter three for more information.

are in the works. One proposal uses an existing network of roads and trails in the Ivanpah Mountains to link the mines of the Standard Mining District in an interpretive loop. The area's resources contain a full spectrum of mining methods and technologies, from equine-powered arrastra to cyanide heap leach open pit mining, and can be explored in chronological succession with help from an interpretive brochure. Development of a unigrid map and brochure for Mojave National Preserve, a standard interpretive hand-out in national parks, began in FY 2000, and as of 2002, is in final stages of preparation.³¹⁵

The Preserve's interpretive rangers disseminate information to the public through park publications and the park website. A park newspaper has been published annually since 1997, to deliver important information to the public that might otherwise be contained on a unigrid brochure. Maureen Lynch, a park volunteer, drafted the first issue with guidance from Sean McGuinness. The issue was later finalized and published by James Woolsey. Production and authorship duties were assumed by Woolsey for the second issue as well. After Woolsey left, Linda Slater took over its publication, and has produced two additional issues to date. Woolsey also wrote a semi-regular column for the Needles newspaper, and other interpretive staff have also contributed articles to local media. The Mojave National Preserve's park website provides supplemental information and interesting articles about specific incidents in Mojave's past, such as the experience of black homesteaders in Lanfair Valley. Woolsey constructed the first website for the park, and Slater later assumed the task of providing new content and quarterly updates.³¹⁶

Recruitment and use of volunteers in Mojave National Preserve has also helped interpretive and other staff accomplish more without additional resources. Chris Burns, interpretive ranger at the Needles Information Center, coordinates the volunteer program for the Preserve. Volunteers act as campground hosts at both Mid Hills and Hole-in-the-Wall, and assist

³¹⁵ Author interview with Mary "Jeff" Karraker, March 28, 2002; Mojave National Preserve, "FY2000 GPRA Accomplishments," 11 (IIB101).

³¹⁶ Sean McGuinness to Eric Nystrom, electronic message, December 13, 2002, copy in possession of author; Author interview with Sean McGuinness, December 4, 2002; Author interview with Linda Slater, Barstow, CA, March 27, 2002.

NPS operations at all three visitors' centers. One reason for locating the volunteer program at the Needles office is to make it easier to recruit help among the large numbers of retirees who spend winters along the Colorado River in the Laughlin / Bullhead City / Lake Havasu area. Retirees have traditionally been of tremendous support to national parks across the nation, and Mojave also benefits from the generosity of retirees and other volunteers.³¹⁷

Mojave National Preserve interpretive rangers conduct a variety of educational outreach activities. Programs for schoolchildren were developed and met with excellent response. Schools in the area around the Preserve, including the Barstow and Apple Valley/Victorville area, have historically been underserved. "These schools haven't had a lot of attention, so any time a public speaker comes in with a little bit of enthusiasm, they love you - it's pretty easy to win them over," explained interpreter Linda Slater.³¹⁸ Typical programs are designed to help kids learn about the plants and animals of the Preserve, especially the desert tortoise, and to use that knowledge as specific examples of bigger themes in natural science. The human history of the area is also represented in Mojave's school programs, and classes frequently get to take field trips to the park itself, to see the natural and cultural resources firsthand. The Preserve's educational outreach programs have benefited tremendously from those developed by older desert parks, especially Joshua Tree NP and Lake Mead NRA. Sharing resources with neighboring parks has kept costs down and enabled the Preserve to conduct educational outreach activities which might not otherwise have been possible.

Educational outreach programs at Mojave National Preserve are not limited to K-12 classes. A large number of college students are served by the park's interpretive program. Study centers at Soda Springs/Zzyzx and to a lesser extent at Sweeney Granite Mountains Research Center concentrate collegians and researchers at the Preserve, and park interpreters are commonly called upon for informative presentations. Biology and geology courses at nearby

³¹⁷ Author interview with Linda Slater, March 27, 2002; Author interview with Mary "Jeff" Karraker, March 28, 2002.

³¹⁸ For an example, see Ted R. Weasma letter to Teresa Cervantes, May 5, 2000, in binder "Read File FY00" tab "Resource Management – Mining," MOJA HQ; Author interview with Linda Slater, March 27, 2002.

colleges and universities make use of the Preserve as a live laboratory, one that is especially useful because of the diversity of geologic and other natural resources in close proximity to one another. Though the interpretive staff has little to do with formal research projects conducted by advanced students in the park, the results of that research are interpreted by park staff for the education of the general public.

In 2001, park managers highlighted the importance of the interpretive program for Mojave National Preserve by creating a separate administrative branch for interpretation. Mary “Jeff” Karraker, a Park Service veteran with more than two decades of service, arrived to oversee the new team. Before the split, both interpretive personnel and visitor protection forces were administered by Mojave’s Chief Ranger, in an arrangement that harkened to a time in the Park Service’s history when all rangers performed both interpretive and law enforcement functions. Sean McGuinness was hired as Chief Ranger in December 1996, after the Dollar Budget crisis contributed to the departure of Bill Blake, his predecessor, but like Blake, McGuinness’s background was in law enforcement and visitor protection. Interpretation made large strides under McGuinness, conducting school programs, planning for the Kelso Depot, and creating the Long Range Interpretive Plan. With a myriad of responsibilities stemming from Mojave’s acute law enforcement needs and a long chain of command occasionally hampering communication with the interpretive forces, it was clear that interpretation needed its own team to allow McGuinness to concentrate on the park’s visitor protection services.

The history of interpretation at Mojave National Preserve has in many ways mirrored the larger history of the park itself. Budget constraints limited growth initially, though eventually new projects resulted in a growing organization and divisional independence. Early efforts concentrated on community education and outreach, while users asked for and received a promise of less development of most of the Preserve, so as to retain the “sense of exploration and discovery” that sets the park apart. Planning efforts, nearly complete, codified the future of interpretation at the park as being intimately tied to the rehabilitation of the magnificent Kelso Depot as a visitors’ center, a prospect that will signal the start of the next phase of interpretive activity for Mojave National Preserve.

Together, resource and visitor protection and interpretation provide the public face of Mojave National Preserve. Both teams face challenges created by the size of the park, the diversity of Preserve resources, the park's proximity to the LA area, and tight budgets. Innovative and flexible uses of existing resources and partnerships with other agencies have proven successful strategies to increase the coverage and efficiency of interpretive services and law enforcement patrols. With recent developments such as the rehabilitation of the Kelso Depot and the use of horses for backcountry patrols, both teams are planning for larger roles in the future of Mojave National Preserve.

Eight: RESOURCE MANAGEMENT

Resource management is an important issue in any park, as the resources, natural or cultural, are the very justification for any park's existence. At Mojave National Preserve, the unusual features of the park gave the Resource Management team several major challenges. The park addressed natural resource management issues, including wilderness, water, animals (both native and exotic), grazing, land acquisition, and soundscape threats in efforts to maintain the integrity of the natural features of the land. The Preserve also contains a wealth of cultural resources, from rock art and an old wagon road to ranching and mining remains. Legacies of former uses of the eastern Mojave created problems in the form of abandoned mine sites and hazardous materials, all of which had to be addressed by Mojave's management. The responses of the park to these situations vividly illustrate both the challenges posed by the history of human uses of the eastern Mojave and the flexibility and innovation required of park managers at Mojave National Preserve.

Natural Resources

Almost half of Mojave National Preserve's land base is designated as wilderness, a level of protection that requires the least intrusive management possible. Wilderness areas in the Preserve encompass a wide range of terrain, from dry lake playas to sand dunes to more traditional forested mountains. Wilderness inside the park is unusual for the number of former roads and routes it contains. San Bernardino County has attempted to claim some of these routes as traditional roads under RS-2477, which would turn their management over to the county. The park is resisting the county's claims. RS-2477 was a law passed in 1866 that granted rights-of-way across unreserved public lands for construction of highways; it was repealed in 1976. In 1988, Secretary of the Interior Donald Hodel opined that RS-2477 gave states jurisdiction over even the faintest trails, as long as the trails in question existed before the act's 1976 repeal. Anti-

wilderness activists inspired by the Wise Use movement have attempted to use RS-2477 as a means of disqualifying lands from wilderness status. In 1996, three Utah counties bulldozed roads into BLM and NPS wilderness areas, asserting that RS-2477 gave them the right to do so, but a federal judge ruled that they were in violation of the law. The federal judiciary's ruling is a preliminary sign that RS-2477 claims will not stand up in court, but the status of Mojave National Preserve's wilderness routes has not been formally determined.³¹⁹

Management of wilderness by the park has been guided by the document “Principles for Wilderness Management in the California Desert,” which was developed by Interior agencies to articulate a directive of the 1994 Transition Action Plan. The September 1995 report, along with subsequent additions, articulated basic tenets of wilderness management, including the “minimum tool” standard. The managers of federal land in the desert recognized key differences between BLM-managed wilderness and NPS-managed wilderness created by the CDPA, but pledged that they would work together to create consistent management practices.³²⁰

One of the most important tasks of the park’s wilderness management program was determining final wilderness boundaries and posting signs to let users know of the boundaries' existence. The maps of wilderness included with the CDPA had wilderness boundaries drawn with heavy marker on copies of fifteen minute topographic maps. This caused some confusion (as well as flexibility) in determining the exact placement of wilderness boundaries. However, thin signs identifying areas as wilderness were posted along road corridors were placed by park rangers very early to provide users with necessary guidance. Patrolling the vast wilderness areas was no easy task. In 2002, the Preserve received a temporary detachment of horses from

³¹⁹ Terri Martin, “RS-2477: A Loophole For Vandals,” *High Country News* March 21, 1994; Elizabeth Manning, “Utah's Burr Trail Still Leads to Court,” *High Country News* April 15, 1996; Larry Warren, “Utah Counties Bulldoze the BLM, Park Service,” *High Country News* October 28, 1996; Christopher Smith, “Feds Sue a Utah County For Building a Road in a National Park,” *High Country News* June 8, 1998; Rachel Jackson, “Counties Cross the Yellow Line,” *High Country News* July 30, 2001.

³²⁰ Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan*, Appendix F, “Principles for Wilderness Management in the California Desert,” 442-458.

Sequoia/Kings Canyon National Park for use in the park. The horses were kept at Kessler Springs Ranch after its acquisition by the Park Service. With proper training, rangers and other park employees could use park horses to access and patrol wilderness. This represented a tremendous improvement over the former system, which required rangers to patrol park wilderness on foot, a task complicated by the large number of wilderness areas in the Preserve and the highly arid environment.

Lack of water is the defining characteristic of deserts, including the Mojave, and concomitantly, it is one of the Preserve's most precious resources. For a desert, the eastern Mojave has a large number of water sources, which support a large variety of wildlife. During the ongoing operations of cattle ranching in the Mojave, grazers "improved" natural springs and drilled many wells, all with the goal of increasing the amount of water available for cattle. Wildlife utilized these water sources as well, and it might be surmised that populations of some species increased due to the larger amount of available water. As the Park Service received ownership of ranching lands and range improvements, control of these water sources became a park issue. Many have since been turned off or removed, with the goal of returning water levels (and dependent wildlife populations) to a "natural" level, but with nonnative species such as burros, deer, and chukar, as well as native species utilizing the scarce water, a return to pre-grazing conditions with fewer water sources may be impossible to attain. Nonetheless, ongoing removal of burros and range improvements certainly do increase riparian flora and fauna, as some early successes on former grazing lands near the Kelso Dunes can attest.³²¹

Water is also at the core of one of the largest threats to the integrity of the park. Outside the southern boundary of the Preserve, Cadiz Inc. owns land under which sits an aquifer estimated to hold more than 600 billion gallons of water. The company proposes to sell the water to the Metropolitan Water District, the agency that slakes the thirst of greater Los Angeles. The district would also pump water from the Colorado River into the aquifer at Cadiz for later use, turning the ground into an enormous subterranean storage reservoir. Little is known about the aquifer or its connections to water sources inside the Preserve, but scientists fear a lowering

³²¹ Author interview with Mary Martin, March 29, 2002, Disc 2.

of the water table would dry up springs and seeps throughout the desert. In 1999, Cadiz Inc. prepared an environmental assessment that was roundly criticized by the park and other agencies. The U.S. Geological Survey (USGS) noted that Cadiz Inc. overestimated the aquifer's recharge rate by "five to twenty five times." The Park Service and USGS agreed the following year to a revised report that included a system of monitoring devices to make sure the pumping did no damage to park resources. An additional delay was introduced to the project when hexavalent chromium, also known as chromium 6, was discovered in the aquifer's water. Hexavalent chromium is linked to cancer risk, but there is little agreement on standards for permissible levels of the element in drinking water. It is also hugely expensive to remove from drinking water, which put a major dent in the economics of the project. On August 29, 2002, the Department of the Interior approved Cadiz Inc.'s environmental review. Opponents of the project, including Dianne Feinstein, focused their attention on the board of the Metropolitan Water District, the last agency whose approval was necessary for the project to go forward. On October 8, 2002, the water district voted, by the narrowest of margins, to halt the project. For all its problems, the project was a tremendous threat to the integrity of the park. If the Cadiz project dried up Mojave springs, all manner of plants and animals in the Preserve would have suffered the consequences.³²²

Mojave National Preserve harbors a tremendous array of native and exotic fauna, small and large, common and rare. In sheer numbers, the tiniest park residents, including microbes and fungi that help make up cryptogamic desert soils, are extensive but poorly understood. The

³²² "Thirsty Mojave Knee-Deep in Water Controversy," *Environmental News Network / CNN.com* October 30, 2000; Chuck Mueller, "Council Will Review Desert Water Plan," *San Bernardino County Sun* October 20, 2000; Tony Perry, "Key Agencies Reach Accord on Wells in Mojave Desert," *Los Angeles Times* October 4, 2000; "State Must Deal With the Bugs to Build Water Supply," *San Bernardino County Sun* November 26, 2000; Tony Perry, "High Chromium 6 Levels Found in Mojave Aquifer," *Los Angeles Times* November 14, 2000; Tom Philp, "Brockovich's Mermaid Cameo in a Water Plot," *Sacramento Bee* November 14, 2000; "Mojave Water Grab: Severely Flawed Environmental Report Puts Desert At Risk," *PR Newswire* October 20, 2000; Laura Wides, "Plan To Store Water Under Desert OK'd," *Las Vegas Review-Journal* August 30, 2002; "State Panel Kills Water Plan," *Las Vegas Review-Journal* October 9, 2002.

same could be said for most of the park's smallest fauna, including common insects like the black widow spider and insects found nowhere else, such as a small cricket that lives only on the Kelso Dunes. The Preserve was named one of America's top Globally Important Bird Areas by the American Bird Conservancy in 2001, in recognition of the important habitat it provides.³²³

Of the diverse fauna found in Mojave National Preserve, no creature receives as much attention as *Gopherus agassizii*, the desert tortoise. In the late 1980s, scientists witnessed an alarming drop in desert tortoise populations throughout the Mojave, including in the East Mojave National Scenic Area, and obtained listing of the tortoise as a threatened species. The tortoise is extremely sensitive to changes in habitat, a fact noted in the 1994 Desert Tortoise Recovery Plan, and bioregional planning and early Mojave National Preserve planning efforts were tied in part to the need to manage the desert tortoise's habitat as a functioning ecosystem. Since the creation of Mojave National Preserve, nearly all decisions relating to the land have taken the desert tortoise into account to some extent. Superintendent Martin noted that it was not park policy to manage resources for the benefit of a single species, but the vast array of management decisions called for by the Desert Tortoise Recovery Plan create a de facto situation where the needs of the tortoise seem to dominate management decisions.³²⁴

Even unconventional projects required park staff time for desert tortoise monitoring and compliance. For example, when Jonathan Mostow, director of the movie "Breakdown," wanted to film portions of his suspense movie in the park, Doug Scovill was detailed to ensure that the movie cast did not harm a single desert tortoise. "They were very cooperative, but any time they went off the road I would go and inspect the area," remembered Scovill. The crew spent three

³²³ Mojave National Preserve Press Release, "Mojave National Preserve Named One of America's Top Globally Important Bird Areas," August 16, 2001.

³²⁴ Darlington, 222-234; "Tortoise Population Falling, Government Biologist Says," *Victorville Press-Dispatch* December 29, 1996; Todd Wilkinson, "A Troubled Time for Tortoises," *National Parks* July/August 1996, 32-39; Chuck Mueller, "Tortoises Face Threat From Kissing Disease," *San Bernardino County Sun* January 12, 1997; James Woolsey, "Survival Challenges," *Needles Desert Star*, November 5, 1997; Teri Figueroa, "Creeping Closer to Extinction," *Victorville Press-Dispatch* June 11, 2000; Author interview with Mary Martin, March 29, 2002, Disc 2.

twelve-hour days filming in the Preserve, and Scovill was with them the entire time to protect the endangered tortoise.³²⁵

While the desert tortoise received complete management attention to attempt to save the species, the history of another native park species, the bighorn sheep, was more complex. Bighorn population levels were historically very low, and in the late 1800s the state of California made it illegal to hunt them. Enhanced water supplies in the desert, probably including water intended for cattle grazing but also specially-designed guzzlers intended for bighorn sheep, allowed the population to grow, especially in the area near the Old Dad Mountains. By the mid-1980s, there were enough bighorn in that area that BLM captured some of them and introduced them to other parts of the Mojave where bighorn had vanished. In 1987, California Department of Fish & Game went one step further and began to issue a very limited number of hunting permits every year for bighorn sheep. In a break with tradition, all of the bighorn tags save one are awarded by computer-generated random lottery, the reserved tag is auctioned off to the highest bidder, often for more than \$100,000.³²⁶

Bighorn embody the kind of awkward management dilemmas found in the Mojave National Preserve: removing guzzlers would create more natural conditions in the park but would probably lead to the decline of the bighorn population, which the park is obliged to protect at natural and healthy levels. However, the loss of the surplus bighorn would likely emphasize hunting impacts on those left and might create a situation where the sheep need to be protected from hunting again. This analysis seems ironic in light of the fact that in the opinion of some CDPA activists, bighorn hunting, rather than deer or game bird hunting, was the real reason behind Mojave's "preserve" designation.³²⁷

³²⁵ Author interview with Doug Scovill, December 3, 2002; "Breakdown" was released in theaters in May 1997 by 20th Century Fox/Paramount Pictures, and starred Kurt Russell.

³²⁶ Infield, 286-295. As an example, 1998's auction tag fetched \$150,000; see Steve Torres, "Apply For Your 'Hunt of a Lifetime'" *Tracks: News About California Deer and Other Big Game* 16 (1999): 15.

³²⁷ See chapter three for analysis of hunting in the creation of the park; comment on draft by Mary Martin, December 2002.

Bighorn have been at the center of several management complications for Mojave staff. The most serious incident took place in 1995, when thirty eight bighorn drowned in a freak accident at a guzzler.³²⁸ Jerry Lewis and anti-park forces called the tragedy a result of Park Service mismanagement, and used the incident as justification for the Dollar Budget. Lambing protections for bighorn in the Clark Mountain area may put the park at odds with a vocal group of rock climbers, who consider Clark Mountain extremely good climbing terrain. “Discovered” in 1992 by rock climber Randy Leavitt, who later published a guidebook to climbing the area, Clark Mountain was described by a national rock climbing magazine as “one of the most awe-inspiring and intimidating sport cliffs in America.” Prior to the CDPA’s designation of the area as wilderness, some climbing bolts were installed in the rock, but no new installations have been allowed since then.³²⁹

Most of Mojave National Preserve faces a four-hoofed problem that has its roots in the human history of the area and will remain a headache for the park because of legislated sentiment for the Old West. Burros, a descendant of the Sumerian ass, are hearty, easy to train creatures, features which made them attractive to desert prospectors. Modern wild burros are the descendants of animals who broke free or were turned loose in the desert by miners unable to pay for feed. Burros pose a considerable challenge to other desert dwellers: they will take control of water sources and prevent other animals, such as cattle and bighorn sheep, from using them, and consume a tremendous amount of forage that other animals, including the desert tortoise, depend upon. As recently as the late 1960s, ranchers kept the burro population under control by shooting animals that threatened their cattle’s water or forage supply.³³⁰

Animal humane societies, worried about a decline of sightings of wild horses, pushed for Congress to protect the invasive animals on public lands as a reminder of the Old Western past. In 1971, Congress passed the Wild and Free-Roaming Horse and Burro Act, which formally

³²⁸ See chapter four for more information about the bighorn sheep incident.

³²⁹ See chapter four for the Dollar Budget and its effects; Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan*, 125; Dave Pegg, “Sin City Limestone,” *Climbing* June 15, 1998, 95-100, 163-165.

³³⁰ Lara Hartley, “Ropin' and Wranglin' Wild Burros,” *Press-Dispatch* May 28, 2000.

mandated the continuing existence of such animals on BLM land where they already were present. BLM took over management of the issue from ranchers, but was reluctant to kill the burros because of pressure from animal rights groups. Burros are as concupiscent as rabbits - herd growth rates approach 20% annually - and the population exploded under BLM management.

The Park Service was under no obligation to allow burros to remain in the park, as the agency is exempt from the Wild Horse and Burro Act. NPS regulations require the park to act as a functioning ecosystem, and the impacts of burros were both negative and substantial. Accordingly, the Preserve made the burro control program one of its top priorities. One statistic illustrates the size of the burro problem: BLM estimated that 130 burros constituted the maximum-sized herd that could exist in the eastern Mojave without ecosystem damage, but a NPS burro census conducted in October 1996 found over 1,500 animals in the park. Managers were so alarmed by the burro problem that the park used \$100,000 of base budget money in 1997 and again in 1998 to initiate the burro removal program. Doug Scovill, promoted to chief of resources after the Dollar Budget crisis had passed, hired Chris Stubbs to tackle the burro problem. The park applied for Natural Resources Preservation Program money, and received \$900,000 over three years to continue the program through FY01. Beginning in 1997, the Preserve utilized a combination of water trapping and helicopter roundups to capture burros, snaring 3,000 animals over five years. BLM budgets \$1,000 per burro to remove the animals from lands it controls, but Mojave National Preserve accomplished the task for about \$300 per burro, largely because of the success of relatively inexpensive water trapping facilitated by Mojave's extensive ranching infrastructure. Wholesale slaughter of the animals was not a politically feasible option. BLM agreed to take a limited number into its adoption program, and the park was able to place 1998's group of captured burros with a private agency which agreed to sell them to the public. Beginning in 1998, Mojave National Preserve entered into an agreement with the Fund for Animals, which operated the Black Beauty Ranch, a haven for unwanted animals. Cleveland Amory, president and founder of the Fund, agreed that the ranch would take up to 300 burros per year from the Preserve at no charge - the Park Service was only obligated to



Illustration 20 - Lake Tuendae at Zzyzx is an artificially-supported habitat that harbors the only population of endangered Mojave tui chub. (Photo by Eric Nystrom, 2001.)

pay for transportation to Texas and a one-time veterinary check. The agreement to adopt Mojave burros was remarkable, as Amory generally took an adversarial stance toward the National Park Service.³³¹

Despite extensive Park Service efforts, the burro problem has not been entirely eliminated. In the Clark Mountain area, burros from a BLM-managed herd stray into park lands. After grazing in the area is retired, the Park Service will likely fence the boundary to prevent

³³¹ Author interview with Dennis Schramm, March 26, 2002, Disc 1; Author interview with Doug Scovill, December 3, 2002; Mojave National Preserve, *Revised Draft General Management Plan*, 127-131; Lara Hartley, "Ropin' and Wranglin' Wild Burros," *Press-Dispatch* May 28, 2000; Chuck Mueller, "Burros To Be Marked For Aerial Surveys," *San Bernardino County Sun*, August 14, 1996; "Burros To Move From Mojave Preserve," *Mohave Valley Daily News* September 4, 1997; Greg Harris, "Adoption Program Moves Burros Out of Mojave National Preserve," *Victorville Daily Press* September 5, 1997; Mojave National Preserve Press Release, "Burro Roundup in Mojave National Preserve," April 10, 2001; comment by Mary Martin on draft, December 2002. Cleveland Amory died a very short time after the conclusion of the burro agreement with the Preserve.

burros from entering. Such a fence would be constructed with special gates that would permit jumping animals, such as deer and bighorn sheep, to pass through, but prevent non-jumping animals like burros from gaining access. Other parts of the Preserve, including the “keyholes” in the Mescal Range and near Castle Mountain Mine as well as the southwest part of the park near the Bristol Mountains, are adjacent to BLM lands that support burro populations not considered part of a managed herd. The boundary in these areas will likely have to be fenced to allow total removal of burros from the Preserve.³³²

While most attention has focused on removal of non-native ungulates such as burros and cattle to promote the health of the desert, the park also began investigating the possible return of a once-native species to the area. Anecdotal evidence strongly suggests that pronghorn antelope once lived in the Preserve. More research would be necessary to determine if a reintroduction program can be justified, but park managers are cautiously supportive of the idea. At least one wolf has been found in the eastern Mojave in the twentieth century, but more research would be necessary to determine if the creatures were ever present in the area in numbers that would justify reintroduction.³³³

In most of the park, managers are making efforts to move ecosystems to a more sustainable state, with less human intervention necessary in the survival of any and all park flora and fauna. This is not the case at Zzyzx, where a population of endangered Mojave tui chub are maintained in the artificial ponds at the site. The Mojave tui chub is the only fish native to the Mojave River. Sometime before the 1930s, a population of the fish came to live in holes at Soda Springs, likely during one of the Mojave River’s periodic inundations of Soda Lake. In the 1930s, a related non-native chub was introduced to the Mojave River, and over time, hybridized with the native fish, merging so completely that by 1970 no genetically original tui chub were thought to exist. In 1970, the U.S. Fish & Wildlife Service listed the tui chub as an endangered species, when the fish in ponds at Zzyzx were discovered to be genetically distinct, native Mojave tui chub. Since that time, the fish population has been maintained by BLM and the Park

³³² Author interview with Dennis Schramm, March 26, 2002, Disc 1.

³³³ Author interview with Mary Martin, March 26, 2002, Disc 2.

Service. To provide appropriate habitat, the ponds they inhabit must be cleaned of cattails and dredged once a decade. In 2001, the Park Service issued a finding of no significant impact on an environmental assessment that described the dredging process. A cofferdam would be constructed to divide Lake Tuendae, then all of the fish in the western half would be captured and moved to the other side before most of the cattails were cut away and the pond dredged to a depth of six feet, a significant improvement of habitat for the tui chub population.³³⁴

The long-term benefits of ecosystem restoration motivated NPS participation in the AT&T's removal of an underground telecommunications cable from park lands. The cable, known as the "P140 system," was constructed in the mid-1960s to be impervious to nuclear assault. The system consisted of the cable itself as well as repeater huts, manholes, and an access road with signage. By 1996, AT&T decided that the burdens of maintenance on the outdated equipment and patrols to prevent vandalism were not justified by the obsolete system. The NPS welcomed the opportunity to remove the manmade structures and receive the right-of-way back from AT&T, and agreed to lead the federal side of the development of an EIS for the project. Public scoping meetings were held in June 1997, and the Draft EIS was available for public comment from late December 1997 until March 1998. A final EIS was issued in May 1998, and the Record of Decision, confirming the preferred alternative of the EIS, was issued August 17, 1998. After some delays related to the Special Use Permit process, AT&T removed the cable then restored the right-of-way, and finished by mid-November 1999.³³⁵ The land associated with the right-of-way occupied by the AT&T cable was valuable, but the removal of

³³⁴ Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan*, 124; Mojave National Preserve Press Release, "Mojave National Preserve Environmental Assessment Released," September 21, 2001; Mojave National Preserve, "Finding of No Significant Impact, Dredging of Lake Tuendae, Habitat for the Endangered Mojave Tui Chub."

³³⁵ *Draft Environmental Impact Statement: P140 Coaxial Cable Removal Project, Socorro, New Mexico to Mojave, California* December 1997, i, xi-xiii, 1-31; Federal Register, May 29, 1998, 29429-29430; Federal Register, September 22, 1998, 50580-50581; Mary G. Martin letter to Preston M. Canzius, L3031, June 15, 1999, binder "Read File FY99" tab "Resource Management," MOJA HQ; Mary G. Martin letter to Dennis Casebier, November 18, 1999, folder "Read File FY00" tab "Resource Management," MOJA HQ.



Illustration 21 - Desert cattle, such as these belonging to the 7IL herd, graze portions of Mojave National Preserve's landscape. (Photo by Eric Nystrom, 2001.)

structures and restoration of the right-of-way was of greatest importance for the future of park resources.

For Mojave National Preserve, grazing is a controversial and important issue that cannot be ignored. Widespread political and cultural overtones help make grazing a sensitive issue for everyone involved. As such, park management tread carefully but deliberately in the arena of grazing management. The Park Service has long viewed grazing as antithetical to its mission, permitting the activity in certain parks only when political circumstances absolutely required it. Park Service culture and policy have historically limited grazing in national parks, initially to differentiate itself from the Forest Service, and in later years to help maintain ecosystems. The long history of grazing in Mojave National Preserve and permission for its continuation in

perpetuity by legislative action complicates natural resource decisions, making the goal of a functioning pre-grazing ecosystem frustratingly difficult to achieve.

At the time Mojave National Preserve was established, all or part of eleven BLM grazing allotments, established under the 1934 Taylor Grazing Act, were included within the park. Superintendent Marvin Jensen brought a background in range conservation with him and established a friendly management tone toward grazers. All existing operations were issued NPS permits to continue with their ranching activity, and management of the range did not differ substantially from BLM activity.

The Park Service also took concrete steps toward limiting grazing when possible, providing that the situation was politically feasible. The portion of the Piute allotment within the park was for ephemeral forage only and was in desert tortoise habitat. Management decided that any ephemeral forage must, at behest of the Desert Tortoise Recovery Plan, be used by the desert tortoise, so a permit to graze ephemeral forage would never be issued. A second allotment, Crescent Peak, was owned by a conservation group, who had purchased it as part of a move to eliminate grazing in southern Nevada. Since no active grazing was taking place, the permit was retired. Not long after the creation of the Preserve, the rancher who held the Clark Mountain grazing allotment passed away, and Park Service regulations forbid the issue of a permit for renewed operations there. Irene Ausmus held the Round Valley allotment, just large enough for her to keep her two pet cows in feed, but not so big as to cause significant resource issues for the park.

Major cattle operations in Mojave National Preserve were essentially controlled by three groups. The Overson family was responsible for the largest share of the acreage, with the OX and Kessler Springs ranches owned by Gary and Linda Overson, and the Granite Mountains ranch owned by their son, Clay Overson. Next in size were the Valley View and Valley Wells allotments, both owned by Richard Blincoe, an Idaho agriculturalist, and managed by Tim Overson. The Blair family operated the 7IL Ranch on the Colton Hills and Gold Valley allotments. During the CDPA debate, the Blairs worked to preserve their ranching way of life,

and an original clause that specified a twenty five year sunset on Mojave ranching was removed from the bill largely as a result of their efforts. In 2001, the park concluded an arrangement begun in 1998 where the 40 acres of park land that included the 7IL Ranch headquarters were swapped to the Blairs for 40 acres of undisturbed land in critical desert tortoise habitat owned by the ranching family. Touted as a “win-win” situation for the Blairs and the Park Service, the deal also showed locals that the government was not out to destroy family ranchers in the Preserve.³³⁶

Ranch lands are identified in the California Desert Protection Act as top priorities for acquisitions. In contrast to the Blairs’ opposition to the CDPA, Gary Overson specifically requested that his ranchlands be included in the park, to guarantee an acceptable purchase price should he decide to sell his property. Beginning in 1995, Deputy Superintendent Mary Martin worked to coordinate the sale of Overson’s ranch to the National Parks Conservation Fund, but after years of contract negotiations, the deal fell through at least in part as a result of strict timelines and reluctance on the part of BLM. Undaunted, Martin sought another donor, but Overson doubted the ability of the Park Service to complete a buyout, as a result of the earlier failed experiment. Overson looked for another private buyer for his ranch, but the park made it clear to the buyer that issuance of a new grazing permit “is not certain” and that “the application process ... is subject to lengthy and potentially costly delays and complex administrative and legal procedures and challenges.”³³⁷ As a trial run, Mojave National Preserve and the National Park Foundation worked to move the Granite Mountains Ranch, owned by Overson’s son, to NPS control. The deal was completed in April 2000, and set the stage for the park’s successful

³³⁶ Mary G. Martin memorandum to Realty Officer, Land Resources, PGBSSO, July 2, 1998, in binder “Read File FY99” tab “Management Team,” MOJA HQ; Mary G. Martin letter to Dianne Feinstein, December 1, 1998 Mojave National Preserve Press Release, “Blair Land Exchange Finalized,” March 15, 2001; Author interview with Mary Martin, March 29, 2002, Disc 2.

³³⁷ Mary G. Martin letter to Randel Aleman, L3019, December 19, 1999, in binder “Read File FY00” tab “Resource Management – Grazing,” 2, 4, MOJA HQ.

acquisition of Gary Overson's holdings in January 2001. In 2002, Blincoe also agreed to sell his ranches to the park.³³⁸

The effect of the Overson and Blincoe allotment acquisitions cannot be overstated. Total grazing in the Mojave National Preserve was reduced from some 37,000 Animal Unit Months (AUMs) to approximately 4,000 AUMs, leaving the 7IL as the only major cattle ranch in the Preserve.³³⁹ The elimination of grazing will move the formerly grazed lands closer toward a goal of a more naturally functioning ecosystem. The Park Service also gained control of a tremendous number and variety of structures associated with cattle ranching in the eastern Mojave desert. In 2002, a consultant produced a National Register district nomination for the Overson properties, signifying their historic importance to the east Mojave; future plans may include interpretive programs and utilizing some structures for NPS employee housing. The ranches acquired by Mojave National Preserve included some private lands among the holdings, but the most valuable assets to the park were the grazing permits and the ranchers' water rights.³⁴⁰

Other parties owned most of the private land in the Preserve. About half of that land was owned by individuals, a legacy of homesteading days, but the other half - some 87,000 acres - was under control of the Catellus Corporation. The Catellus holdings, made up of checkerboard sections across much of the park, were originally granted to the Southern Pacific Railroad in 1864 by the federal government, as incentive to build the line that is today's Burlington Northern

³³⁸ Author interview with Mary Martin, March 29, 2002, Disc 2; Author interview with Dennis Schramm, March 26, 2002, Disc 2; Clay Overson and Sandra Overson letter to Mary Martin, January 25, 2000, Mary Martin memorandum to Regional Director, Pacific West Region, February 16, 2000, in binder "Read File FY00" tab "Resource Management - Grazing," MOJA HQ; Mojave National Preserve Press Release, "Granite Mountain Grazing Allotment Donated to Mojave National Preserve," April 18, 2000; Mojave National Preserve Press Release, "Kessler Springs and Lanfair Valley Allotments Donated to Mojave National Preserve," January 16, 2001.

³³⁹ An Animal Unit Month (AUM) is the amount of forage necessary to feed a cow and her calf for one month. Grazing on federal land is measured in AUMs.

³⁴⁰ The National Park Service owned a majority of the Preserve's water rights only after the Overson and Blincoe acquisitions. Mary Martin, comment on draft, December 2002.

Santa Fe. Catellus wanted to gain maximum value for stockholders, and was interested in disposing of its desert lands if possible. In 1996, a \$36 million deal partially fell through, because the federal government's decision to spend \$380 million on 7,000 acres of old-growth forest in northern California left the Catellus deal short of funds. The company put pressure on the government by sending teams to survey their desert lands for mineral and development opportunities, and put up large "For Sale" signs along roads near the Preserve. The Wildlands Conservancy, a non-profit group, stepped in to help negotiate a deal. In 1998 and 1999, the non-profit group and Catellus came to an agreement that would transfer 487,000 acres of land to the federal government for \$54.6 million, of which \$18.6 million would come from the private group and the rest from the federal government. Rep. Jerry Lewis and other Republicans blocked part of the money - that which would purchase Catellus lands inside the Preserve - until a deal to allow expansion of Ft. Irwin was consummated. On July 27, 2000, the government took control of Catellus lands within Mojave National Preserve. Of the \$20 million received by Catellus for the 184,000 acres of lands in and near the park, \$15 million was raised by the Wildlands Conservancy, and the federal government paid the rest.³⁴¹

Development, land use, and urban sprawl are some of the biggest threats to the Mojave National Preserve. Citing statistics that indicate that McCarran Airport will reach capacity by 2014, airport planners have long cast their eye on the northern part of the Ivanpah Valley, between Jean and Primm, as ideal for an additional airport to serve the Las Vegas area. The

³⁴¹ Frank Clifford, "Firm Threatens to Mine, Build in Mojave Preserve," *Los Angeles Times* October 31, 1996; Carl Nolte, "Mojave Preserve Land-Swap Deal Stalls Over Price," *San Francisco Chronicle* November 4, 1996; Frank Clifford, "US Pursues Major Land Swap in Mojave," *Los Angeles Times* May 21, 1997; Andrew Silva, "Wildlands Expansion Discussion Under Way," *San Bernardino County Sun* December 1, 1998; Frank Clifford, "\$52-Million Deal Seeks to Save Desert Land," *Los Angeles Times* December 2, 1998; Alex Barnum, "Clinton's Big Plans For Protecting Land," *San Francisco Chronicle* January 12, 1999; Andrew Silva, "Huge Conservation Deal Advances," *San Bernardino County Sun* January 12, 1999; Andrew Silva, "Babbitt Predicts Congressional Support of Deal," *San Bernardino County Sun* January 21, 1999; Bettina Boxall, "US Takes Control of Desert Land," *Los Angeles Times* January 30, 2000; Teri Figueroa, "\$20M Deal Adds Land to BLM, Preserve," *Victorville Daily Press* July 28, 2000; Scott Gold, "US Acquires Desert Land for Preservation," *Los Angeles Times* July 28, 2000.

valley already had easy transportation access to the metropolis because both the Union Pacific Railroad and a recently-widened Interstate 15 run through it. In 1998, Nevada representatives introduced legislation in Congress to allow Clark County to purchase more than 6,000 acres from BLM to build the airport. Opposition focused largely on impacts that the airport would have on the Preserve, the boundary of which is less than 15 miles from the proposed site. The airport would destroy the park's sense of natural quiet, adversely impact air quality and nighttime darkness, and bring urban sprawl to the Mojave's doorstep. In the House, the measure was defeated along with a large number of other measures in an omnibus anti-environment bill; the Senate version languished in committee. In April 1999, the National Parks Conservation Association listed Mojave as one of the ten most endangered parks because of the airport threat. In May, Nevada's Congressional delegates again introduced legislation to transfer land for the airport, but added some weak protections against environmental damage as well. Again, the legislation was delayed in committee in the Senate, where Dianne Feinstein and others expressed their concerns over the impacts to Mojave National Preserve. After consultation with environmental groups added language stipulating that a full EIS would be completed prior to construction and that the land would revert back to BLM if the airport was not built in 20 years, the House overwhelmingly passed the airport legislation in early March 2000. In July, Senator Harry Reid added several amendments in order to get the stalled bill out of committee. Most crucially, one amendment required that "any actions ... shall specifically address any impacts on the purposes for which the Mojave National Preserve was created." The full Senate approved Reid's bill in early October, and President Clinton inked his approval on October 28, 2000.³⁴²

³⁴² Keith Rogers, "Environmentalists Oppose Airport Plans for Ivanpah Valley," *Las Vegas Review-Journal* June 24, 1998; Mark D. Preston, "Plans For Cargo Airport Advance," *Las Vegas Sun* August 7, 1998; Tony Batt, "Ivanpah Valley Airport Proposal for Clark County Defeated in the House," *Las Vegas Review-Journal* October 8, 1998; Clyde Weiss, "Conservation Group Lists Mojave Preserve as Endangered," *Las Vegas Review-Journal* April 21, 1999; Clyde Weiss, "Push Renewed For Ivanpah Airport," *Las Vegas Review-Journal* June 1, 1999; Keith Rogers, "Group: Airport Plan a Threat," *Las Vegas Review-Journal* June 21, 1999; Tony Batt, "Congressional Panel Oks Sale of Land for Airport South of LV," *Las Vegas Review-Journal* September 24, 1999; Christine Dorsey, "Airport Land Bill Delayed By Senators," *Las Vegas Review-Journal* October 21, 1999; Launce Rake, "Plans for Second Airport Take Flight," *Las Vegas Sun* November 7, 1999; Launce Rake,



Illustration 22 - The rock walls of the military outpost at Piute Creek were constructed in 1867-1868. (Photo by Eric Nystrom, 2001.)

After passage of the airport land legislation, Mojave National Preserve instituted a program to document the natural soundscape to better demonstrate that the airport would harm park resources. In a series of remote locations throughout the Preserve, park staff have set up monitoring stations with sensitive microphones that constantly record the decibel level of ambient sound to a computer log file. If a noise above a certain threshold is experienced for

“Environmentalists Air Complaints,” *Las Vegas Sun* November 8, 1999; Benjamin Grove, “House Launches New Airport,” *Las Vegas Sun* March 9, 2000; Christine Dorsey, “Compromise Pushes Ivanpah Airport Measure Forward,” *Las Vegas Review-Journal* March 9, 2000; Christine Dorsey, “Ivanpah Airport Bill Advances,” *Las Vegas Review-Journal* July 14, 2000; Benjamin Grove, “Ivanpah Airport Gets Go-Ahead From Senate,” *Las Vegas Sun* October 6, 2000; Christine Dorsey, “House Oks Sale of Ivanpah Valley Land for Airport,” *Las Vegas Review-Journal* October 18, 2000; Christine Dorsey, “Clinton Signs Ivanpah Airport Legislation,” *Las Vegas Review-Journal* October 29, 2000.

more than a certain length of time, the computer saves the sound itself as an electronic file. The park is also encouraging research on the effect airplane sounds would have on bighorn sheep lambing and on the desert tortoise. Dennis Schramm summarized the park's airport strategy:

“We just want a realistic evaluation of alternative sites, and that's what we're going to try to get. We also want a realistic evaluation of the noise impacts over Mojave. And whether or not that piece of legislation is able to stand up and they will actually turn the airport down - only time will tell.”³⁴³

Cultural Resources

Mojave National Preserve's cultural resources are extensive and multifaceted. Prehistoric habitation, ranching, homesteading, mining, railroading, and military operations have scattered cultural resources throughout the park, and the dry climate and remoteness of some of the sites have helped to preserve them. Most of the park's cultural resources are managed under a philosophy of benign neglect, a consequence of limited resources and personnel. The same “sense of discovery” that limits widespread interpretation of park resources also makes them more difficult to find, which aids in their preservation.

Extensive rock art exists throughout the Preserve; so much so that archaeologist Robert Bryson, cultural resources chief at Mojave, considered the area to be one of the biggest collections of rock art in the world. Much of it has been vandalized, but some rock art is entirely intact. Even at vandalized sites, important resources may still remain, especially under the soil. All known archaeological sites in the Preserve were entered into an NPS database called ASMIS, set up by Doug Scovill in the early days of the park. More recently, the data have been updated and refined by Bryson in a new effort to fully document the resources of the park.³⁴⁴

Only low rock walls remain of the military outpost at Piute Creek, known colloquially as “Fort Piute.” This area was declared an Area of Critical Environmental Concern by the BLM, in recognition of both the cultural values of the fort and the Mojave Road, as well as the extensive flora and fauna supported by Piute Creek, the Preserve's only perennial stream. In 2002, Park

³⁴³ Author interview with Dennis Schramm, March 26, 2002, Disc 1.

³⁴⁴ Author interview with Robert Bryson, Barstow CA., March 28, 2002.

Service experts assisted the Preserve in stabilizing the remains of the walls, which were steadily crumbling under pressure from visitors and plants. Other former military sites along the Mojave Road, including the outpost at Rock Spring and that at Marl Springs, are not as well preserved as Piute Creek. These sites receive considerable traffic for their locations, and therefore are also a focus of increased ranger patrols to ensure no degradation of the resource takes place.

The history of the nineteenth-century military in the eastern Mojave is bound up with the history of another unusual historical artifact, the Mojave Road. After a volunteer group published a four-wheel drive guide to the trail in 1983, the route became a favorite of off-road vehicle users, many of whom travel in groups. BLM did not require permission for large groups on the Mojave Road, but the NPS asks groups with more than twenty five people to obtain a free group use permit, to help the park better monitor road traffic. An informal tally of road users has been kept by the Friends of the Mojave Road since the trail's 1983 rebirth, by counting the numbers of signatures in a sign-in book kept in a mailbox on a remote part of the route. A cultural resource inventory for the Mojave Road cultural landscape was completed, and a National Register Nomination is underway. The General Management Plan's preferred alternative explicitly provides for the possibility of commercially guided tours over the Mojave Road.³⁴⁵

The Kelso Depot is one of the most significant buildings in the Mojave National Preserve, and plans to rehabilitate the structure into a visitors' center have driven management decisions about it.³⁴⁶ Since the formation of the park, the depot has been heavily patrolled. Portable restrooms were placed near the depot in 1995 to meet visitor demands, and in 1998, wayside exhibits were produced and mounted near the building to tell some of its history.³⁴⁷ Pacific Great Basin Support Office historian Gordon Chappell and Denver Service Center Historical Architect

³⁴⁵ Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan*, 105, 149.

³⁴⁶ Also see the section on interpretation in chapter seven for more information about the Kelso depot.

³⁴⁷ Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan*, 247.



Illustration 23 - The Rock Springs Land & Cattle Company constructed this circular water trough and lumber corral near Barnwell sometime between 1894 and 1919. (Photo by Eric Nystrom, 2001.)

Robert Carper led a team that produced a Historic Structure Report of the depot, published in January 1998. The Kelso Depot Development Concept Plan, along with a Floodplain Statement of Findings, was included with the General Management Plan as the latter was developed. In essence, the Development Concept Plan calls for the depot to be returned to a condition that approximates its pre-1940 look. Modern improvements, such as additional landscaping, external restrooms, and parking would be designed in such a way that they would be partially shielded from view, and would not detract architecturally from the depot. As funding becomes available, other nearby buildings, especially the Kelso Schoolhouse and the Kelso Post Office, will be



Illustration 24 - The headframe of the Evening Star Mine, in the Ivanpah Mountains, provides a substantial reminder of Mojave National Preserve's mining heritage. (Photo by Eric Nystrom, 2002.)

restored as well; stabilization of the schoolhouse took place in 2002. In August 2001, the depot was added to the National Register of Historic Places.³⁴⁸

The Kelso Depot is associated with the nearby Vulcan Iron Mine, part of the Kelso Historic District. In early 1998, Hugh Davenport, owner of the Vulcan Mine and surrounding patented land, donated the former iron mine to the park. Shortly before the creation of Mojave

³⁴⁸ Gordon Chappell, et al., *An Oasis for Railroaders in the Mojave: The History and Architecture of the Los Angeles and Salt Lake Railroad Depot, Restaurant and Employees' Hotel at Kelso, California on the Union Pacific System* (California: U.S. Department of the Interior, National Park Service: 1998); Mojave National Preserve, *Revised Draft Environmental Impact Statement and General Management Plan*, Appendix B, "Kelso Depot Development Concept Plan," 349-368; Mojave National Preserve Press Release, "Kelso Depot Added to National Register of Historic Places," August 16, 2001.

National Preserve, a company proposed filling the pit with shredded tires, but public reaction to the plan was very negative and San Bernardino County rejected the proposal.³⁴⁹ The Kelso Depot and Vulcan Mine district provide a cultural link from the history of the eastern Mojave to nationally significant railroad history, industrial history, and history of the home front during World War II.

In contrast, the widespread ranching landscape in the eastern Mojave does not seem significant on the same scale at first glance, but in actuality reflects nationally important business and natural history themes. Extensive ranching structures dating from the 1800s to the modern day were inherited by the Park Service as grazing permits were acquired and retired between 1998 and 2002. Beginning in late 2001, the park contracted to have a National Register district nomination completed for the historic Rock Springs Land & Cattle Company, represented by the Kessler Springs and OX Ranches. Some of the headquarters buildings and range improvements will be retained for interpretation, some newer non-contributing features and fences will be removed, and some buildings, especially at Kessler Springs, will be adaptively reused as park employee housing and maintenance facilities. Many of the historic ranching features are in very good condition, because they were in continuous use until after the Preserve was created.³⁵⁰

Just as ranching features have been nominated as historic districts, plans under development grant some facets of Mojave National Preserve's mining heritage similar treatment. The Standard Mining District, located in the Ivanpah Mountains, will be evaluated for historic significance in 2002, and others will be addressed in years to come. Before the interest in the Standard area, most mine sites did not receive park management attention for their value as historic artifacts, but instead for their hazards and potential for renewed mining. Since abandoned mines are located in remote areas and often have existing buildings, they have been used by clandestine drug manufacturers with alarming regularity. Regular ranger patrols have cut down on the likelihood of this kind of use. Some sites, especially those with less extant

³⁴⁹ Chuck Mueller, "Park Hopes Old Vulcan Mine Will Be Prosperous," *San Bernardino County Sun* March 9, 1998.

³⁵⁰ Author interview with Robert Bryson, March 28, 2002.

historic value, have been declared hazards and rehabilitated. Rainbow Wells was a site of mining and ranching activity from the early 20th century, but most recently harbored an illegal methamphetamine lab in 1998. After the lab was found and removed, everything at the site was sent to a landfill outside the park. All that is left of Rainbow Wells today is a few Joshua trees and some uneven ground.

Mining in the area that is now Mojave National Preserve has long been a major use, and was recognized by the California Desert Protection Act as a use that would be permitted to continue after the creation of the Preserve. In general, mining is not encouraged in national parks. For a long time, the Park Service had no means of regulating mining on park lands. After the NPS was unable to prevent a company from establishing a major mine just inside the borders of Death Valley National Monument in the late 1960s, Congress passed the Mining in the Parks Act in 1976 to give the NPS powers to regulate mining activity on its lands in such a way that is compatible with the agency's mission. The act, codified in the so-called "9A regulations," gives the Park Service broad powers to restrict potential mining operations, and establishes strict procedures for creating new mines in parks. The mining issue in Mojave National Preserve can easily be divided into two categories. One half concerns the past - former mines in the Preserve which now pose liabilities to the park; the other side concerns the future of mining in the park, evaluating claims that could become new mines. The two overlap because only claims established before 1994 could become active mines, and many claims exist at the sites of mines that were worked in the past.

Historically, exploration and extraction of minerals was long one of the top industries in the Mojave desert. The region was geologically very active, which increased the number and variety of minerals deposited in the desert rock, and lack of obscuring plant cover made mineral deposits easier for prospectors to locate. Native Americans and possibly Spaniards and Mexicans mined in the area before California became part of the United States. Beginning in the 1860s, Americans mined the eastern Mojave for a wide variety of minerals until the creation of Mojave National Preserve in 1994. Each of these sites of former activity left a legacy on the landscape, of shafts, adits, and above-ground structures. It is possible for the park to trace the

owners of some of the newer mines, and demand reclamation of the site. Those mines for whom no responsible party can be found are known as abandoned mine lands (AML). Mojave National Preserve's list of AMLs includes some 419 entries as of 2002.³⁵¹

In 1998, the park hired Andrew Lesczykowski as a restoration geologist to deal with AML issues. Lesczykowski, a U.S. Bureau of Mines veteran, was part of a team in the early 1990s that produced a report that evaluated the mineral resources of the area that is now the Preserve. That Bureau of Mines report, which listed all known historic mines in the eastern Mojave, has been used by Preserve staff as a preliminary list for evaluating the status of abandoned mines in the area. The park has created a database listing all known AMLs, and is systematically evaluating them to determine the extent of the workings, the safety hazards involved, the historic period of the remaining features, and any chemical or hazardous materials concerns that may be present at the site. Armed with this data and with the concurrence of experts in relevant fields, mines can be reclaimed in a variety of ways. In some situations, such as the Rainbow Wells site, the existing features were not historic and the place was simply a hazard. The site was cleaned up, trash and debris hauled away, and the ground recontoured and ripped up to promote plant growth. At other sites, shafts may be filled with dirt originally taken from them, if it is piled nearby. Other shafts and tunnels might be filled with a polyurethane foam plug, several feet long, that expands to fill the opening, then backfilled with earth. Others may simply be left alone, if they are remote enough to pose no visible threat or if they harbor bat habitat, as many mine tunnels in the Preserve do.³⁵²

All total, some 15,000 claims have been staked in the area that is now Mojave National Preserve. The number of "active" claims, meaning those whose paperwork and filing fee was up to date, exceeded 3,000 when the park was established in 1994. The CDPA placed special restrictions on mining claims in the Preserve. All claims, like those in other parks, are subject to the Mining in the Parks Act, or "9A" regulations. In an unusual twist, the CDPA required that

³⁵¹ See chapter two for more information on the history of mining in the area of the Preserve. Author interview with Andrew Lesczykowski, Barstow, CA, February 8, 2002, Disc 2.

³⁵² Author interview with Andrew Lesczykowski, February 8, 2002, Disc 1-2.

the Preserve conduct validity exams on all active claims in the park, rather than only those claims that propose new operations. This requirement means that all of the claims in the park will eventually be rendered either valid or invalid, permanently eliminating the threat of mining on those found invalid and identifying any valid claims for purchase by conservation forces and “solving” the future of mining in Mojave National Preserve. The requirement also means that considerable money and effort must be put into the validity examination program before the process is complete.³⁵³

The Park Service took steps to reduce the list of active claims in August 1998, when Ted Weasma and Gordon Pine, both certified mineral examiners, were hired to work in the Geological Resources Division in the Denver Service Center. The two were assigned to Mojave, with the understanding that they would work on validity exams in Joshua Tree and Death Valley as well. After one year, Weasma and Pine were administratively transferred to the Preserve, though the duo continued to periodically assist other parks. They have reduced the list of active claims from over 3,000 to 486 by mid-2002, almost exclusively through monitoring active claim administrative procedures.

To have a valid claim under 9A regulations, a series of standards must be met. There must be a mineral present in a quantity and of a quality that a “reasonable person” would expend time and money extracting it. Importantly, the mineral must be marketable as well. Many claims fall on the question of marketability. A hypothetical claimed gold deposit that is big enough, if mined, to make a profit at 1994 prices, is valid. If the market dips the following year, making the mine break even at best, then the claim is *permanently* invalid, even if the market rebounds. For a claim to be valid, it had to have been valid at the time the claim was staked, valid at the time of the passage of the CDPA, valid at the time of examination, valid at the time of an administrative hearing, and valid all of the times in between. Given the variations inherent in mineral commodity markets, the marketability standard sets a very high hurdle for claims to

³⁵³ “California Desert Protection Act of 1994,” Public Law 103-433, Section 509; Author interview with Ted Weasma, Barstow, CA, March 27, 2002, Disc 1. For a map of active mining claims in the Preserve, see Mojave National Preserve, *General Management Plan*, 101.

be found valid. In addition, fees must be filed promptly. If the owner of a claim fails to file paperwork or an annual fee on time, the claim is rendered permanently invalid. The end result is a process that, in Weasma's words, makes it "very, very difficult" for a miner to prove his claim valid. These difficulties are posed by mining law, not by Mojave National Preserve or the Park Service. Weasma and Pine both emphasized that their professional reputations rest on the impartiality of their work, and Pine added that, "the Park Service has never told us to find a claim invalid."³⁵⁴

As funding permitted, Weasma and Pine guided validity examinations for active claims. No validity work could be done in the field until the process stipulated by the National Environmental Policy Act was completed, a procedure which took two years. Some exams are contracted to outside vendors and supervised by the park; six contracts have been awarded as of mid-2002. Pine and Weasma worked on exams themselves as well, but because of the length of the exams and the limited funding available to them, only a handful have been initiated.

If a claim were ever found valid, the owner would need to submit a Plan of Operations for the park's approval before mining or other activity could begin. Park regulations would require a reclamation bond sufficient to return the property to a pristine state after the mine exhausted its working life, and any wilderness or access issues would have to be addressed as well. As of mid-2002, four mines have activity pending park approval. The Morning Star Mine has proposed a reclamation operation, the Golden Quail Mine has a potential cleanup in the works, and the Cima Cinder Mine and the Telegraph Mine have Plans of Operation submitted to the park.³⁵⁵

The Cima Cinder Mine was the only mine in Mojave National Preserve that was in operation when the area became part of the National Park System. Its cinders were used mostly in the production of cinder blocks that were used in the southwest. After the death of the original owner of the mine, Emerson Ray, the mine was operated for the family trust by Lorene

³⁵⁴ Author interview with Ted Weasma, March 27, 2002, Disc 1; Author interview with Gordon Pine, Barstow, CA, March 27, 2002.

³⁵⁵ Author interview with Andrew Lesczykowski, February 8, 2002, Disc 2.

Caffee, his daughter, and her husband Terence Caffee. In the early 1990s, a BLM validity examiner determined that the Caffees could patent their claim, and the application to turn their mine into private land advanced to Washington DC, where it remained unsigned, victim of a national political decision not to grant any more mineral patents on federal lands.³⁵⁶

After passage of the CDPA, Superintendent Marvin Jensen issued temporary permits to Cima Cinder and several other small operations to continue mining until they prepared a Plan of Operations that met Park Service standards. Cima Cinder continued to operate without a permanent Plan of Operations under several extensions of the temporary permission, with support of Rep. Jerry Lewis and Sen. Dianne Feinstein, because of the financial hardship that would have resulted from a shutdown.³⁵⁷ In August 1999, the Western Mining Action Project, headed by the Southwest Center for Biological Diversity, filed notice of a lawsuit against the NPS for allowing the mine to continue to operate without a valid Plan of Operations. The day before the lawsuit was to be filed, Superintendent Martin decided to shut down the mine. She and Chief Ranger Sean McGuinness served notice on the Caffees on August 10, 1999 in an atmosphere fraught with anxious undertones.³⁵⁸ NPS Regional Director John Reynolds eventually persuaded the superintendent to take McGuinness, but Martin initially wanted to go by herself:

“I was nervous about taking anyone else out there with me. These guys had threatened to kill anyone that shut them down, so I decided I don’t want to put anyone else in danger. ... I didn’t think he’d shoot me but I did think he’d shoot someone else. I figured he knew me, and sometimes these guys are kinda macho and they can’t, you know, be rude to a female, but they could to a male. So I was afraid to have somebody else go out there in case he decided to do something weird - you can never tell.”³⁵⁹

³⁵⁶ Author interview with Andrew Lesczykowski, February 8, 2002, Disc 2.

³⁵⁷ Mary G. Martin letter to Lorene Caffee [no date], in binder “Read File FY99” tab “Special Uses Team,” MOJA HQ.

³⁵⁸ Mary G. Martin, memorandum to Regional Director, August 10, 1999, Mary G. Martin, letter to Terry Caffee and Lorene Caffee, August 10, 1999, in binder “Read File FY99” tab “Management Team,” MOJA HQ.

³⁵⁹ Author interview with Mary Martin, March 29, 2002, Disc 1.

Since the mine has been shut down, the market that the Caffees once served has found other sources of cinders, which makes it unlikely that the mine will ever again meet the marketability standard to be declared a valid claim. The Caffee family places the blame on the Park Service, charging that Lorene and Terry Caffee submitted a revised Plan of Operations that was never acted upon by Preserve staff. The park prepared an environmental assessment, which has not gone out for public review because the Caffees requested the opportunity to comment first and have not done so.³⁶⁰ Ultimately, the case of the Cima Cinder Mine is a testament to the byzantine nature of mining regulations and the unusual character of resource management work in Mojave National Preserve.

Just as extensive mining in what is now Mojave National Preserve causes the park to stand apart as an unusual case, the Preserve's management faced an unusually large number of hazardous materials problems as a result of historic activities on what are now park lands. All national parks have to concern themselves with hazardous materials to a certain extent, because so many things in modern use are hazardous when disposed of improperly. Mojave National Preserve avoided some of the most common park-based hazardous materials scenarios because the Preserve joined the national park system after in-park development, with their associated trash dumps and motor maintenance shops, fell out of favor. Nonetheless, because of its neighbors, its mining past, and the history of use of the desert as a dumping ground, Mojave National Preserve has faced an extensive set of non-emergency hazardous materials problems.

The most complex hazardous materials threat that the park has faced originated just outside park boundaries. The Molycorp Inc. Mountain Pass Mine and Chemical Processing Facility consists of an open pit rare earth metals mine and milling facilities nestled in the hills between I-15 and Clark Mountain. The host rock, estimated to be 2.5 billion years old, was originally claimed as a gold deposit, the Sulphide Queen, in 1936. Its history as a rare earth or

³⁶⁰ Robin Sorti (daughter of Lorene Caffee), <http://www.deuceofclubs.com/moj/cimamine/mine1.htm>, accessed March 18, 2002; J. Lorene Caffee letter to Senator Dianne Feinstein, August 23, 1999; Mary G. Martin letter to Monte E. Ray, January 12, 2000, in "Read File FY00" tab "Resource Management – Mining," MOJA HQ; Author interview with Andrew Lesczykowski, February 8, 2002, Disc 2.

lanthanides mine began when Herbert Woodward and Clarence Watkins, prospectors searching for uranium in the post- World War II atomic boom, discovered that the area possessed a radioactive profile. The uranium sought by prospectors was present only in small quantities, but the presence of bastnasite, ore that harbors extremely rare elements collectively known as lanthanides, ensured the profitability of the operation. Molycorp bought the claims in 1950 and began mining in 1951, although the production of lanthanides was not the main focus of the operation until its purchase by UNOCAL in 1977.³⁶¹

In 1980, Molycorp constructed a 14-mile underground wastewater pipeline between its Mountain Pass facilities and evaporation ponds on Ivanpah Dry Lake. Approximately five miles of this pipeline was inside the boundaries of Mojave National Preserve when it was created in 1994. Molycorp told regulators that the pipeline would be carrying nothing more than highly salty water, a byproduct of the milling process, so regulators allowed the company to drain its wastewater into open evaporation ponds on the playa. Molycorp did not tell the Lahontan Regional Water Quality Control Board that heavy metals and radioactive materials also accumulated in the wastewater. Between 1984 and 1993, Molycorp reported over 40 spills from the pipeline, totaling 727,000 gallons, but the board only asked for samples to be taken twice, thinking that the saline water posed no threat to the environment.³⁶²

By 1996, Molycorp was in a temporary state of partial shutdown because the existing plan of operations of the mine had expired. The facility intended to expand and needed to increase the carrying capacity of the wastewater pipeline. Molycorp decided to aggressively scrub the inside of the pipeline to remove buildup, or “scale,” and to increase the capacity of the pipe. This process, known as “pigging,” uses a jet of high pressure water to push a foam and wire plug through the pipe. This plug, or “pig,” scoured the buildup off of the inside of the pipe. This procedure was conducted regularly as part of routine maintenance but had not been performed

³⁶¹ Author interview with Andrew Lesczykowski, February 8, 2002, Disc 2; “Molycorp Through the Years,” *San Bernardino County Sun* May 25, 1997; Dave Anderson, “Molycorp Issue Paper,” Jan 21, 2000.

³⁶² Steven Church, “Water Watchdogs Ignored Spills,” *San Bernardino County Sun* June 9, 1998.

for some time prior to the decision to increase pipeline capacity. Molycorp chose a larger than normal pig to achieve a greater scrubbing effect. The company evidently was not aware of a section of six-inch diameter pipe in the buried pipeline, which they assumed was a uniform 8 inches diameter.³⁶³

The pig got stuck in the pipe. The combination of excessive scale and an oversize pig caused pipeline pressures well beyond capacity, which ruptured the pipe in several places. Between July 24 and August 5, 1996, the pipeline released waste into the environment at least 11 times, totaling in excess of 350,000 gallons. Some of this waste contained heavy metals and low levels of radioactivity, up to 100 times acceptable (background) levels. The BLM ordered Molycorp to clean up the spills by February, but the company disagreed with the government about cleanup details. The situation stagnated, with the waste still covering the ground.³⁶⁴

The impasse prompted other agencies to get involved. The Lahontan Regional Water Quality Control Board issued Cleanup and Abatement Order 6-97-66 to Molycorp on April 21, 1997, requiring the company to repair the damage. The board also included the Bureau of Land Management and the National Park Service in their directive because the spills were on federal land. Sean McGuinness, operating with advice from Heather Davies, an NPS hazardous materials specialist, coordinated the NPS response. The U.S. Fish and Wildlife Service issued a Biological Opinion on May 1, 1997, to set procedures for protection of the desert tortoise. Molycorp continued to move slowly, even as McGuinness and Davies insisted on formal and complete cleanup procedures. In June 1997, the federal agencies, along with the U.S. Fish and Wildlife Service, established an Incident Command to jointly manage the federal response to the 1996 spills. The NPS took the position of lead agency for several months, then relinquished the responsibility to the Bureau of Land Management, at least partially because of a lack of NPS staff availability in the wake of the Dollar Budget. On June 18 and 19, 1997, the NPS and BLM issued temporary permits to allow Molycorp to clean up the discharges.³⁶⁵

³⁶³ Author interview with Dave Anderson, Barstow, CA, February 7, 2002.

³⁶⁴ "Radioactive Waste Remains in Desert Months After Spill," *Desert Dispatch* April 25, 1997.

³⁶⁵ Christine Vetter, "Information on the Molycorp Waste Discharge Pipeline Releases," May 4, 1999; Author interview with Dave Anderson, February 7, 2002.

Molycorp began the process of cleaning up the spills in late July 1997, and finished the job by March 1998. This task was mostly completed with hand tools, as a vacuum truck was only of limited success. The cleanup crews packaged the waste into 95 bins and 1,840 drums, of which more than half was radioactive. Molycorp did not want this radiologically-active waste labeled “radioactive,” out of fear of being forced into a new category of regulation. Haggling over this and other issues delayed the final shipment of waste from the playa, but the containers were sent to landfills in 1999. The cleanup cost Molycorp approximately \$3.6 million, although some estimates are higher, depending on what costs are included in the total. Almost 4 miles of desert tortoise fencing was installed during the cleanup to help protect the reptiles, as the spills occurred in critical tortoise habitat.³⁶⁶

On March 23, 1998, the Lahontan Regional Water Quality Control Board issued orders requiring Molycorp to cease disposing of and clean up radioactive and hazardous waste in ponds on the playa and at the mill site. Disposal of hazardous and radioactive waste was a violation of the company’s wastewater permit, which only allowed innocuous salt-infused water to be dumped in the ponds. The same day, Molycorp announced that it would permanently close the wastewater pipeline and temporarily shut down part of its mill until a solution could be found to the wastewater dilemma. Later, Molycorp decided to remove the pipeline altogether, although that work has not been completed to date. The board assessed \$410,000 in fines for late and non-existent reporting of spills on July 9, 1998, and increased the penalties that would be levied against Molycorp if future violations occurred.³⁶⁷ To comply with the board’s orders, Molycorp

³⁶⁶ Vetter, “Information...”; Author interview with Dave Anderson, February 7, 2002; Steven Church, “An Accident Waiting to Happen?” *San Bernardino County Sun* March 4, 1998; Greg Harris, “Water Quality Officer to Issue Cleanup Orders to Molycorp,” *Victorville Daily Press* March 21, 1998; Warren Bates, “Company Nearly Finished With Cleanup of Radioactive Spills,” *Las Vegas Review-Journal* February 23, 1998.

³⁶⁷ Greg Harris, “Molycorp Faces Cleanup Orders,” *Desert Dispatch* March 21, 1998; Greg Harris, “Molycorp Temporarily Suspends Wastewater Pipeline Usage,” *Desert Dispatch* March 25, 1998; Steven Church, “Molycorp To Close Waste-Water Pipeline Near I-15,” *San Bernardino County Sun* March 24, 1998; Greg Harris, “Molycorp to Pay \$410,000,” *Desert Dispatch* July 11, 1998; “Molycorp Fined \$410,000 in Wastewater Pollution Case,” *Las Vegas Review-Journal* July 11, 1998.

prepared a study of all of the hazardous and radioactive materials along the pipeline. In the resulting document, the company revealed that many other releases from the wastewater pipeline had occurred over the years. Since 1984, the company recorded 69 spills from the pipe, totaling some 971,000 gallons of waste. The board ordered a survey of the pipeline, which identified additional areas that required remediation and presented a plan for pipeline removal.³⁶⁸

Molycorp faced legal troubles as well. San Bernardino County prosecutors conducted a criminal investigation into whether the company lied to regulatory agencies after the 1996 spills. Shortly after authorities learned of the spills, a joint federal/state/county team seized boxes of documents about the incidents from Molycorp's Mountain Pass offices. On May 19, 1998, county prosecutors took over a civil suit against the mine which alleged that Molycorp violated state drinking water safety laws.³⁶⁹ The firm's environmental, legal, and regulatory problems prompted Molycorp's September 1998 announcement that it would temporarily suspend operation of its mine and mill until environmental reviews were complete and a solution was found to its expansion and wastewater dilemmas.³⁷⁰

Dave Anderson, a specialist in hazardous materials (HAZMAT) management, came to the staff of Mojave National Preserve from the Environmental Protection Agency in September 1998 to help NPS manage the Molycorp situation and other HAZMAT issues. After the 1996 spills, several concurrent threads of activity formed around Molycorp, all of which demanded NPS participation and awareness. Since some of the Molycorp pipeline spills were on NPS land and

³⁶⁸ "Can Molycorp Get A Handle On Spills?" *San Bernardino County Sun* October 6, 1998; Dave Anderson, "Molycorp Issue Paper," Jan. 21, 2000

³⁶⁹ Steven Church, "Molycorp Faces Water Cleanup Order," *San Bernardino County Sun* March 7, 1998; Marry Manning, "Mining Company Target of Environmental Lawsuit," *Las Vegas Sun* May 14, 1998; Greg Harris, "District Attorney Files Suit Against Molycorp Inc.," *Desert Dispatch* May 21, 1998; Steven Church, "DA Suing Molycorp Over Leaks," *San Bernardino County Sun* May 20, 1998.

³⁷⁰ Mimi Ko Cruz, "Molycorp Suspends Operations At Mountain Pass Site," *San Bernardino County Sun* September 12, 1998; Craig Johnson, "Supervisors OK Firms for Mine Environmental Study," *Desert Dispatch* October 28, 1998; Cerise A. Valenzuela, "Payment Plan OK'd For Mine's Environmental Study on Expansion," *San Bernardino County Sun* October 28, 1998; Dave Anderson, "Molycorp Issue Paper," Jan 21, 2000.

other Molycorp actions had the potential to affect NPS water and land resources, the Park Service had to maintain an active presence in the ongoing work. These efforts included the cleanup of pipeline spills, the investigation of alternative sources of contaminants, the investigation of groundwater at the mine facility itself, the mine's expansion proposal, the investigations of pollutants at the old and new Ivanpah evaporation ponds, and the Human Health and Ecological Risk Assessment study. Molycorp reimbursed Mojave for the expenses the park incurred while directly working on Molycorp projects, but park staff was significantly impacted nonetheless. Anderson later identified the Molycorp issue as a "tar baby" because of the amount of time Mojave staff had to spend on it. With Molycorp, Anderson's primary responsibility was to maintain an active NPS presence in all of the cleanup and compliance efforts, and ensure that the interests of the park and of the park's partners were taken into consideration.³⁷¹

Other projects, for HAZMAT incidents inside park boundaries, saw Anderson take a more active role in planning and executing evaluation and cleanup efforts; the Rainbow Wells / OX Ranch cleanup provides a good illustration. In March 2001, Mojave National Preserve formed an agreement with the California Integrated Waste Management Board to split the costs of cleaning up some hazardous sites in the Preserve. The partnership resulted in the cleanup of the Rainbow Wells site and the OX Ranch dump in late April and early May 2001. The former site was the location of a small mine, but after the resident owner died in 1997, the buildings were badly vandalized and used to shelter a methamphetamine production lab. After two men were caught producing the drug in 1998, the site was targeted by the Preserve for cleanup. Most of the structures were non-historic, and all were badly damaged. Ultimately, some 550 tons of material went to a landfill, and another 176 tons of scrap metal was recycled. The dump at the OX Ranch, which the Park Service had acquired only months before, had been in use for many decades, but because of frequent bulldozing to compact and turn over debris, the historic fabric of the dump was not intact. Some 440 tons of material from the dump was sent to area landfills

³⁷¹ Dave Anderson, "Environmental Cleanup Liability Assessment, Molycorp Mine Site Summary," Sept 25, 2001; Author interview with Dave Anderson, February 7, 2002.



Illustration 25 - Mojave National Preserve faced potential ecological damage when the cyanide leach heap at Morning Star Mine began to overflow due to poor design. (Photo by Eric Nystrom, 2001.)

outside the park, and another 210 tons of metal was recycled. Eleven tons of contaminated soil was also removed and sent to a disposal facility before the site was contoured and graded. Despite the magnitude of cleanup problems at places like Rainbow Wells and the OX Ranch, Mojave National Preserve utilized partnerships to keep costs down. For the two cleanups, the park only had to pay half of the final \$167,000 cost.³⁷²

Most of the potential hazardous materials problems in Mojave National Preserve are associated with abandoned mine lands in the park. These range from small petroleum spills and leftover mining chemicals to huge leaking cyanide heaps, but all of them feature levels of hazardous materials in excess of legal standards, and in all of them the Preserve is potentially liable. One example is the Kelso Dunes Mine site, where Art Parker used a giant magnet to pull

³⁷² Mary Martin letter to Marge Rouch, L3031, April 11, 2000, in binder “Read File FY00” tab “Resource Management,” MOJA HQ; Mojave National Preserve Press Release 01-005 (no title), March 13, 2001; Mojave National Preserve Press Release, “Nearly 1000 Tons of Debris Removed,” August 16, 2001.

magnetite ore from the sands, with hopes that the result would contain platinum and gold. All of the processing of Parker's ore was conducted elsewhere, so no milling wastes remain at the site. However, in the process of filling and using Parker's diesel-powered machinery, some fuel, hydraulic fluid, and motor oil leaked onto the ground. According to the state of California, any petroleum levels above 1000 parts per million (ppm) in soils must be removed; the Kelso Dunes Mine site sports contamination 7 to 32 times the legal limit in almost 1,400 tons of soil. Parker is the Potentially Responsible Party in the case, but if he fails to clean up the area, the park may have to do so, at a cost of at least \$73,000.³⁷³

The Morning Star Mine was a more serious abandoned mine land concern. Vanderbilt Gold Corporation mined for gold at Morning Star in the 1980s, and shut down by 1992 because of fiscal problems. Morning Star utilized a heap leach method to extract gold, where finely ground ore was placed upon a plastic liner, then dilute cyanide was sprayed over the heap. The cyanide dissolved the gold out of the ore, and carried it to a central drainage point, called a pregnant pond, where the gold and the cyanide would concentrate. Of the two heaps at the site, one has an external pregnant pond, outside of the heap, and the other has an internal pond, built into the ore heap itself. The problem occurred when it rains. The heaps fill with water, which drains along the same route as the cyanide solutions once did. Heap #1, with its external pond, has enough capacity to keep from overflowing, but heap #2, with the internal pond, simply fills up. Heavy rains caused Morning Star heap #2 to overflow, which eroded the top and sides of the pile. This posed a major threat to the plastic liner that held the heap materials in place - if the liner failed, the contents of the heap would flow down the wash into other park lands. While the park began the Superfund administrative processes for the site's eventual mitigation or remediation, the threat of catastrophic failure of the heap prompted emergency action. Park maintenance workers shored up the side of the heap with nearby materials, staving off collapse. While the Superfund process determines responsible parties and attempts to get them to pay for the cleanup, in spring 2002 the park constructed a simple gravity drain to prevent heap #2 from

³⁷³ Dave Anderson, "Environmental Cleanup Liability Assessment, Kelso Dunes Mine Site Summary," September 21, 2001.

overflowing again. Mojave has applied for and received federal HAZMAT money for work on the Morning Star problem, but actual mitigation of the hazards could be years away.³⁷⁴

Some HAZMAT problems come to Mojave National Preserve because of the perception on the part of a small amount of the public that the desert is a wasteland and an appropriate place to dump unwanted trash. Some of these sites were in place long before the area passed to NPS control; others have seen dumping activity only very recently. One non-permitted dump site near Ivanpah had been used by the community for years, but under NPS regulations, the location had to be cleaned up, and some hazardous materials were found at the location. Two cleanups, in 1997 and 1998, had to take place before the site could be declared clean.³⁷⁵

Other dumping incidents were deliberate attempts to circumvent environmental laws. The 1995 dumping case, where two men from Las Vegas dumped resinated epoxy waste on NPS and BLM land was one of the most serious incidents of illegal dumping the park has seen.³⁷⁶ In January 1999, Mojave called the San Bernardino County HAZMAT team to Halloran Springs Road, to investigate three old drums that were leaking a flammable fluid similar to paint thinner. The drums were stabilized, secured, and hauled away, along with a small amount of contaminated soil.³⁷⁷

Mojave has faced HAZMAT situations even more unusual than mine waste or illegal dumping. In January 1999, park personnel assisted a specially trained unit of U.S. Marines in the park. The leathernecks came to pick up a 75mm mortar round that was found inside the

³⁷⁴ Central HAZMAT Fund is the Department of the Interior version of Superfund. Author interview with Dave Anderson, February 7, 2002, Disc 1; Mary G. Martin letter to Kathy Davis, L3019, [no date], in binder "Read File FY00" tab "Management," MOJA HQ; Mary G. Martin letter to Keith Fegert, N3617, August 10, 1999, in binder "Read File FY99" tab "Resource Management," MOJA HQ; Dave Anderson, "Environmental Cleanup Liability Assessment, Morning Star Mine Site Summary," September 21, 2001.

³⁷⁵ Mojave National Preserve, "Report of Accomplishments October 1, 1996 to September 30, 1997," 2.

³⁷⁶ See the section on resource and visitor protection in chapter seven for an account of the incident.

³⁷⁷ Mojave National Preserve, "Major Accomplishments for the First Five Years (1994-1999)," 8.

Preserve, a legacy of the eastern Mojave's use as a military training ground. The shell was discovered to not have explosive materials inside, but the soldiers noted that 5% to 15% of the calls they receive for such items turn up explosive items. All national parks have to be concerned with hazardous materials to one extent or another, but because of its proximity to urban areas, to major mines, and the history of extensive use of the area, Mojave National Preserve has faced an astonishing number and variety of hazardous materials scenarios.³⁷⁸

The history of the administration of Mojave National Preserve's resources echoed the larger challenges facing the park after the chaos of the Dollar Budget. Scarce staff time and money were allocated to mitigate immediate threats to the park, and many of the legislative compromises inherent in the park's design, such as grazing, mining, and hunting, created additional issues that demanded the attention of the resources staff. Despite the challenges posed by the human history of the park's lands and the sheer number and diversity of park resources, the Resource Management team of Mojave National Preserve acted in innovative and flexible ways to mitigate unwanted impacts and enhance the natural integrity of the lands under their care. The Preserve engaged a multitude of natural resource management issues, including wilderness, water rights, animals, grazing, acquisition of inholdings, and threats to Mojave's natural sound. Preserve staff also protected Mojave's extensive cultural resources, both historic and prehistoric, even as they attempted to neutralize threats from abandoned mine sites and hazardous materials, both legacies of Mojave's extensive history of human use. The steady work toward resolution of issues such as feral burros and abandoned mine lands will reduce the amount of staff time absorbed in the future by such unusual projects, but the size and diversity of Preserve resources, coupled with the special needs of Mojave's legislatively-permitted activities, will ensure the continuing importance of a creative Resource Management team at Mojave National Preserve.

³⁷⁸ Mojave National Preserve, "Major Accomplishments for the First Five Years (1994-1999)," 8.

Nine: FUTURES

Does the rocky path taken by Mojave National Preserve from a neglected space to a protected place have implications for the future of the park? In an era of tightening federal budgets and widespread uncertainty, even the most storied national parks cannot see a future entirely free of difficulty. Fortunately for Preserve staff, some challenges that plagued Mojave in the early days of the park are unlikely to be problems in the future. The difficult tasks of creating a park where none existed before have largely been completed. The focus of park managers and employees on community relations has paid off; animosity of locals and inholders has been greatly reduced, and as a result the likelihood of another politically executed local revolt such as the Dollar Budget incident is now remote. Instead, other elements of the park's past promise to cloud the picture.

The future of Mojave National Preserve is inextricably bound to the two factors that created the park and have motivated management decisions from the beginning: increased population growth in the desert Southwest, especially in the Los Angeles and Las Vegas areas, and the eternal negotiation and compromise over the meaning of the Preserve and the purpose of the actual place that bears that designation. The pressures of population growth will likely lead to ever-larger visitor numbers, with concomitant demand for increased visitor services such as campgrounds, interpretive programs, trails, and exhibits. Naturally, the park will also need to extend its maintenance and visitor protection activities to cope with the larger visitor load. Gateway communities at Baker, Goffs, Nipton, Essex, Needles, Primm, and Barstow may develop private services and companies to cater to a wide spectrum of visitor expectations, from day-use sightseeing to backcountry wilderness expeditions. Rapid growth of the urban places outside the boundaries of the Preserve will have greater consequences beyond providing ever-larger numbers of visitors. The Cadiz water project was conceived as a response to the

perceived water needs of Los Angeles, and while the plan itself is on hold, the desires of Angelenos for green lawns continues unabated. The Ivanpah Airport project with its potential impacts on the natural quiet of the park is a response to the expanding transportation requirements of greater Las Vegas, and expansion of Interstate 15 or increased railroad traffic through the Preserve are also conceivable in the future. The bright lights of Las Vegas, Laughlin, and of Primm at the state line will increasingly degrade the quality of Mojave's nighttime darkness, and air pollution blown from the metropolises will haze the Preserve's vistas.

While urban growth poses challenges to the integrity of the park's resources, other questions will be prompted by the continuing struggle to understand what precisely constitutes a "preserve." Mojave National Preserve is an unusual park, to be sure. The place is certainly parklike. It features craggy mountain peaks, huge sweeping valleys, alien cinder cones, and Joshua tree forests, the whole populated with exotic plants and animals as small as bacteria and as large as bighorn, all supremely adapted to their ecosystem. There are notes of jarring discord, however: among those parklike features are views that seem to spoil the tableau - gigantic open pit mines mar the mountains, bright steel electric-line towers leapfrog the valleys, huge notches and mining roads spoil the hulking cinder cones, and cattle with horns dumbly graze around the spiky Joshua trees.

The landscape of Mojave National Preserve reflects human work in a naked, obvious manner, and therein lies its value. Practically from the beginning of the appreciation of American spaces as worthy of preservation, those most treasured - America's national parks - have been artificially empty, seemingly devoid of the works of humanity. The existence of sacred, beautiful, untouched, empty spaces also implies the reverse - that places with people or their modifications are profane and ugly, not worthy of care. This idea formed the core of the 1964 Wilderness Act, which "for the permanent good of the whole people" declared that wilderness was "an area where earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain."³⁷⁹ The explicit choice provided by the law - "earth and its community of life" versus "man" - reinforces the idea that man and nature are

³⁷⁹ "Wilderness Act," Public Law 88-577, September 3, 1964, Section 2(c).

mutually exclusive. We know that this myth is false, at the very least because it excludes the Native Americans that called the wilderness home well before the United States ever existed, but places like Mojave National Preserve force the point in a vivid way. Considered broadly, the Preserve's designation was a result of a compromise between those who saw only parklike resources and those who believed that the land had been used by humans long enough and intensely enough to disqualify it as a park. Today, the Preserve lands show their heritage as places where prehistoric and modern humans lived and worked yet are still beautiful and worthy of our consideration and protection. If Mojave National Preserve and other places like it can help humans recognize that all places are precious, regardless of the changes perpetuated on them by earlier generations, then perhaps we might treat all of our spaces, urban and rural, with greater respect.³⁸⁰

³⁸⁰ See Mark David Spence, *Dispossessing the Wilderness: Indian Removal and the Making of the National Parks* (New York: Oxford University Press, 1999) and William Cronon, "The Trouble With Wilderness, or, Getting Back to the Wrong Nature," in William Cronon, ed., *Uncommon Ground: Toward Reinventing Nature* (New York: W. W. Norton & Co., 1995), 69-90.

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