

VISITOR GUIDE

Issue 3 /2001

National Park Service Mojave National Preserve



Kelso Depot Restoration Project Begins

Now nearly a ghost town in the center of Mojave National Preserve, Kelso was once a thriving railroad and mining community of nearly 2,000 people. The Kelso Depot, a majestic mission revival-style train station, is an remarkable discovery for travelers passing through this stretch of desert. Most feel compelled to stop at the lonely crossroads, gawking at the building as if seeing a mirage.

This magnificent but neglected building is about to be brought back to life. Congress has appropriated \$5.5 million for a rehabilitation project which will return the Kelso Depot to its place as the center of the East Mojave Desert community, this time as the Preserve's Visitor Center. Due to its central location, most visitors to the Preserve will have a chance to stop at the depot, where they will have the opportunity to learn more about the desert,

enjoy the grandeur of the depot, and seek trip planning advice from park rangers.

The project will stabilize this significant historic structure, restoring the exterior to its pre-1942 appearance. The Beanery Restaurant, ticket office, and conductor's rooms will also be restored and historically furnished, recreating the feel of the depot at its heyday as a railroad and mining town. Other rooms will function as an information center, museum, and bookstore. Landscaping will be rehabilitated to approximate the historic scene as much as possible, recognizing the need for parking, restrooms, and concern for water conservation.

Work is expected to begin during the summer of 2001, with the building opening to the public two years later. Kelso Depot will begin a new life as one of the most unique visitor centers in the National Park System.

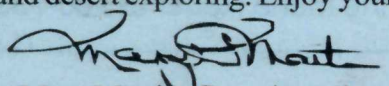
Kelso Name pulled out of a hat

In 1904, as construction of the railroad eastward from Los Angeles continued, a tent camp developed at Siding No. 16. Warehouse workers wanted a proper name for the place. The two men wrote their names on slips of paper, and prepared one for a third man who had just moved away, then scrambled the papers in a hat and drew one out. It bore the name of the warehouseman who had left, John H. Kelso, and thus the place became "Kelso."



WELCOME!

Created in 1994 through the California Desert Protection Act, Mojave National Preserve, was established to protect the outstanding natural, cultural, and scenic treasures of the East Mojave Desert while providing for scientific, educational, and recreational opportunities. Managed by the National Park Service, Mojave National Preserve allows for hunting, while National Parks do not. Here you'll find abundant opportunities for hiking, scenic drives, camping, and desert exploring. Enjoy your desert visit!


Mary Martin, Superintendent

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INFORMATION

For general information, write or call:

Superintendent
Mojave National Preserve
222 E. Main Street, Suite 202
Barstow, CA 92311
760-255-8801

Visit our Desert Information Centers:

In Baker: at the base of the World's Tallest Thermometer

760-733-4040 (daily, 9 a.m. to 5 p.m.)

In Needles: 707 W. Broadway (in the True Value Hardware building)

760-326-6322 (Tuesday through Sunday, 8 a.m. to 4 p.m.)

At Hole-in-the-Wall: Near Hole-in-the-Wall Campground (open seasonally)

Plan Your Trip Wisely!

Facilities and services within Mojave National Preserve are extremely limited. Bring everything you need with you. Currently, there is no entrance fee.

Gasoline

There are no gas stations in the Preserve, so be sure to fill up before entering. Gas is sold along I-40 at Needles, Fenner, and Ludlow, along I-15 at Baker and Halloran Summit, and in Nevada at Primm and Searchlight.

Campgrounds

Two family campgrounds have pit toilets, trashcans, and drinkable water. There are no hookups, but there is a dump station at Hole-in-the-Wall. Each campsite has a picnic table and a fire ring. No reservations; \$12 per site per night, \$6 for Golden Age/Golden Access Passport holders.

Hole-in-the-Wall Campground

Located at 4,400 feet in elevation and surrounded by sculptured volcanic rock walls; there are 35 campsites for RVs and tents, and two walk-in tent sites.

Mid Hills Campground

Nestled in pinyon pine and juniper trees at 5,600 feet in elevation, Mid Hills Campground is much cooler than the desert floor below. The road to the campground is not paved and is not recommended for motorhomes or trailers; 26 campsites.

Accommodations

There are no motels within the Preserve. Rooms can be found in Barstow, Nipton, Needles, and Baker, California, and in Primm, Nevada.

Water

Always carry plenty of drinking water in your car and especially when hiking. The only drinking water available is at the Mid Hills, Hole-in-the-Wall, Black Canyon, and Providence Mountains State Recreation Area campgrounds.

Group Camping Black Canyon Equestrian & Group Campground

Located at Hole-in-the-Wall. Pit toilets, water, picnic shelter. Reservations are \$25 per night; call 760-326-6322.

Other Area Camping Providence Mountains State Recreation Area

Six campsites with tables and fire rings are available on a first come basis for \$8.00 per night.

Afton Canyon on I-15 west of the Preserve has a BLM campground.

Commerical camping is available at **Nipton** and **Needles, California**, and in **Primm, Nevada**.



Jimson Weed

Anne Marie Reber

Telephone and Web Directory

EMERGENCY	Dial 911
Emergency: Interagency Communications Center	909-383-5651
Baker Mojave Desert Information Center	760-733-4040
Needles Mojave Desert Information Center	760-326-6322
Kelso Ranger Station	760-733-4011
Hole-in-the-Wall Ranger Station	760-928-2572
Mojave National Preserve Headquarters	760-255-8801
Hole-in-the-Wall Fire Center	760-928-2573
Mitchell Caverns	760-928-2586
Needles Sheriff	760-326-9200
Baker Sheriff	760-256-1796
Joshua Tree National Park	760-367-5500
Death Valley National Park	760-786-2331
Lake Mead National Recreation Area	702-293-8990
Anza Borrego Desert State Park	760-767-4205

Mojave National Preserve	www.nps.gov/moja
National Park Service	www.nps.gov
Bureau of Land Management	www.blm.gov
California Desert	www.californiadesert.gov
Leave No Trace	www.lnt.org
Wilderness	www.wilderness.net

Weather

Expect wide day-night temperature fluctuations, seasonal strong winds and bright, clear skies. At low elevations, temperatures in excess of 100°F typically begin in May and can last into October.

Annual precipitation ranges from 3.5 inches at lower elevations to nearly 10 inches in the mountains. Most rain falls between November and April; summer thunderstorms may bring sudden, heavy rainfall. The driest months are May and June.

Winds are a prominent feature of Mojave Desert weather. Strong winds occur in fall, late winter, and early spring months. November, December, and January are generally calm.

TEMPERATURES

Average high/low (F.)

	Granite Mt. Elevation 4,200 feet	Zzyzx Elevation 930 feet
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January.....	50/36.....	61/34
February.....	54/38.....	69/40
March.....	59/41.....	74/46
April.....	68/48.....	83/53
May.....	75/54.....	93/61
June.....	85/63.....	103/70
July.....	90/67.....	109/77
August.....	89/66.....	107/75
September.....	83/61.....	100/68
October.....	73/52.....	77/55
November.....	59/41.....	73/43
December.....	50/34.....	62/34
Average		
Annual Precip.....	8.95".....	3.37"



Volunteer Opportunities

Staff our Desert Information Centers at Baker and Hole-in-the-Wall or work as a Campground Host at Mid Hills or Hole-in-the-Wall Campgrounds. A small stipend is available. For complete job descriptions, see www.nps.gov/moja, or call Chris Burns at 760-326-6322.

Teachers: Invite a Ranger to your class!

Rangers share their knowledge about the Mojave Desert, plants and animals, Indians, mining, ranching, railroads, careers, and more!

Barstow-Victorville: call Linda Slater at 760-255-8836.

Needles: call Kristy Sholly or Chris Burns at 760-326-6322.

Baker: call Anne Marie Reber at 760-733-4253.

DESERT TRAVEL

Be Prepared:

- Let someone know your trip route, destination, and return date, vehicle make and license plate.
- Take a minimum of one gallon of water per person per day (two gallons if you are hiking), and drink it freely. Carry extra drinking water for emergencies.
- Carry plenty of food, sun-screen, proper clothing, and a first aid kit with you at all times.
- Familiarize yourself with the area and learn about desert travel and survival before you begin your exploration.
- Carry a good map and know how to use it.

Dirt Road Driving

Hundreds of miles of dirt roads await the adventurous, well-prepared explorer.

Road Conditions

Road conditions vary widely. Carry a good map and ask a park ranger for current road conditions. Dirt roads may become rough or sandy, trapping the unprepared motorist many miles from help. Watch for cattle, burros, and other wildlife on roadways.

Your Vehicle

Ensure that your vehicle is in good condition. Check your tires, oil and gas gauge before you leave. Be prepared for an emergency. Carry a tire jack, tools, towrope, and extra water for your vehicle.

Rules of the Road

- All vehicles operating within the Preserve must be street-legal in accordance with DMV requirements. This includes current registration and tags, lights and turn signals, and valid insurance. The California "Green Sticker" and "Red Sticker" programs are not recognized within the Preserve.
- Traveling off pavement within the Preserve is allowed only on existing dirt roads; do not travel cross-country or create new routes. Watch for and respect Wilderness Boundary signs; motorized vehicles are not allowed in Wilderness Areas.
- Driving in washes is not permitted.

Backcountry Camping

Backpackers traveling on foot or by horse only can camp within the Preserve by going at least 0.5 mile from any developed area or road and 0.25 mile from water sources. There is no registration system, so be sure to let someone know your trip plans. Back-country camping is limited to a 14 day stay. There are few trails; take a good map and become familiar with the area you are hiking through. Do not set up in a drainage or dry wash as flash floods can develop quickly in the desert.

Roadside Camping

Roadside car camping is permitted within Mojave National Preserve in areas that have been traditionally used for this purpose. Camping tramples vegetation; by picking sites that have already been used for camping you help protect the desert from further damage. Do not camp along paved roads or in day-use areas, and stay at least a quarter mile away from all water sources. Please respect the rights of private property owners.

Firewood & Campfires

Wood is scarce in the desert. Cutting or collecting any wood, including downed wood, is prohibited. All firewood, including kindling, must be brought in.

Campfires are allowed in fire rings in campgrounds and other established sites. To minimize your impact even more, use a firepan and pack out the ashes. Please do not leave fires smoldering or unattended.

Firearms

- Target-shooting or "plinking" is not allowed within the Preserve.
- Possession or use of firearms is prohibited, except during lawful hunting activities. A valid hunting license and appropriate tags are required.
- Firearms must be unloaded and cased within campgrounds and vehicles at all times.
- Do not shoot within 150 yards of any structure (campgrounds, visitor centers, residences, etc.)
- Possession and use of fireworks or model rockets is not allowed.

Collecting and Vandalism

Disturbing, defacing, or collecting plants, animals, rocks, historic or archaeological objects is prohibited. These are part of our national heritage, and should be left as you found them for all to enjoy. Metal detectors are not allowed.

Private Property

Private property is found throughout the Preserve. Please respect the rights of our neighbors. It is your responsibility to receive permission before hunting, hiking or entering private property.

Pets

Pets must be confined to a leash no longer than six feet at all times, with the exception of dogs used while hunting.

Cattle and Fences

Most grazing within the preserve occurs on public land. This land is open to you to explore, but please don't disturb cattle, fences, or water tanks. Leave gates as you find them.

Bicycles

Bicycles are allowed on dirt and paved roads, but are not allowed on hiking trails, unless they are former roads. Bicycles are not allowed in Wilderness Areas or for cross-country travel.

Wilderness

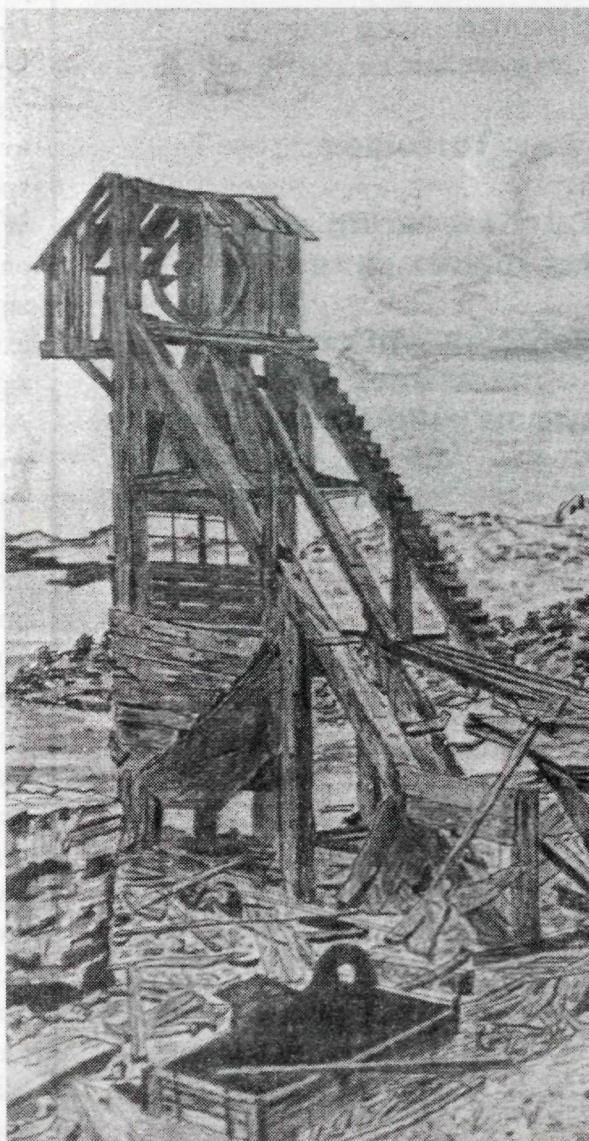
Nearly 50% of Preserve lands have been designated by Congress as *Wilderness Areas*. These special places offer the opportunity to escape the sights and sounds of civilization.

Exploration on foot or horseback is encouraged; cars and other mechanized vehicles are not allowed. Please watch for and respect Wilderness boundary signs.

Danger: Abandoned Mines

A visit to one of the many abandoned mines within Mojave National Preserve takes us back to the colorful times of hardscrabble prospectors and their meager desert existence. Mining was a dangerous activity, and mines sites are still potentially hazardous. Mine shafts and adits are not identified, nor are hazard or warning signs in place at most sites. Preserve staff is currently installing safety signs or barriers. This process will take years to complete.

Do not enter any mine opening, at any time, for any reason. These openings tempt the adventurous, but real danger exists. Mine shafts can collapse due to unstable rock or rotten timbers. The air in many mine shafts is not healthy to breathe, due to low oxygen and the presence of carbon dioxide or monoxide, hydrogen sulfide, and other gasses. Tripping and falling



hazards abound underground and critters you may not wish to encounter live there. When exploring mine sites, keep children and pets under control so they do not trip or fall into mine openings.

Within Mojave National Preserve are numerous examples of the rich and varied mining activity typical of the west. More than 400 abandoned mine sites with about 800 shafts and 500 adits exist in the preserve. Adits are horizontal openings, often referred to as tunnels; shafts are vertical holes. Openings range from 10 feet in length to more than a thousand feet (for adits) and 800 feet (for shafts). Most abandoned mines are older than 30 years with some as old as 100 years.

Additionally, there are three open pit mines in the preserve. Each pit has steep slopes and high pit walls that may be unstable.

GOPHERUS AGASSIZI

Tracking the desert tortoise

Returning from a spring climb up Kelso Dunes, you may find a desert tortoise relaxing in the shade of your car. California's State Reptile, the tortoise is the quintessential California desert critter. Unlike speedy lizards, tortoises move slowly, so you can get a good look at these lumbering, lovable lizard cousins.

This fascinating animal has become the focus of increasing scientific interest. Due to declines in tortoise populations over the last several decades, the U.S. Fish and Wildlife Service listed the desert tortoise as *Threatened* in 1990, and selected a team of scientists to develop a plan for its recovery. Drawing from concepts outlined in the Endangered Species Act, the recovery team developed a

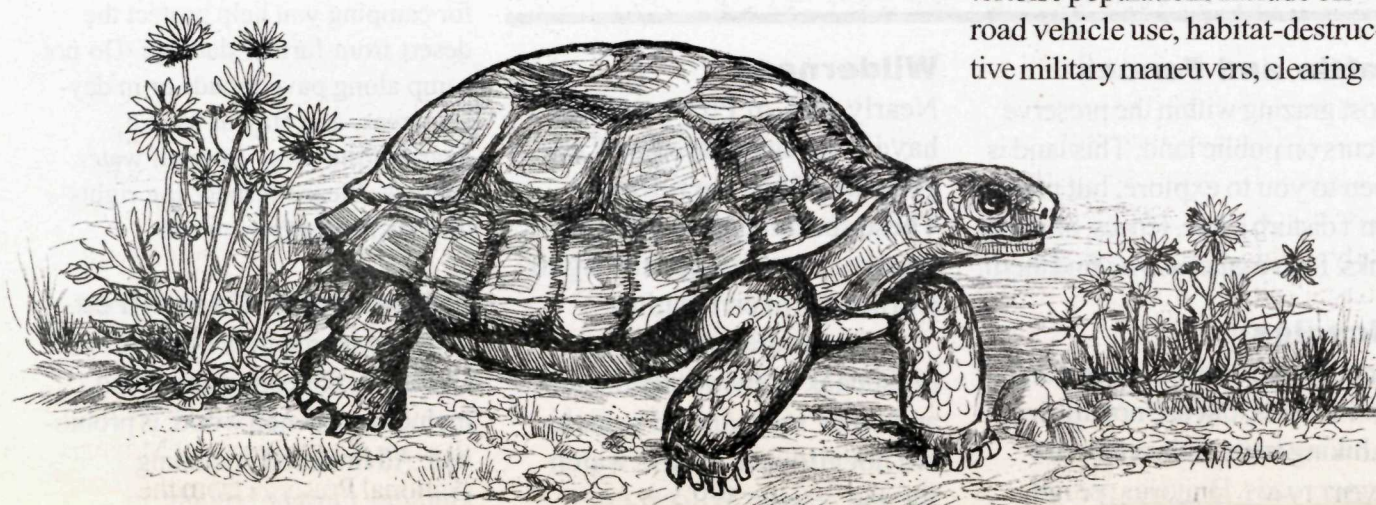
strategy to protect separate populations of desert tortoises representing a high degree of genetic variability and living in diverse habitats. The result is *The Desert Tortoise Recovery Plan*.

The plan designated critical habitat over six *recovery units* representing major ecosystems in the Mojave and Colorado deserts. The goal of the plan is to reach a stable or increasing population for at least 25 years in each recovery unit. The plan identifies 14 reserves, called *Desert Wildlife Management Areas*, within the six recovery units. Agencies that manage the land in these areas must develop and implement plans to minimize tortoise threats in these areas. Human activities that are contributing to the decline in tortoise populations include off-road vehicle use, habitat-destructive military maneuvers, clearing

for agriculture and landfills, grazing, dumping and littering, and the release of potentially diseased captive desert tortoises.

The Recovery Plan requires scientifically credible monitoring of populations in each Recovery Unit for at least 25 years. However, estimating the population size of animals that spend much of their life underground is not easy. Biologists needed to develop a method that would be accurate, cost-effective, and could be replicated throughout the recovery area to achieve comparable results. The method chosen is called line distance sampling, in which trained searchers walk along randomly located transect lines and record evidence of the presence of tortoises. Searchers will carry out the work during the spring season when tortoises are most active.

Federal agencies that manage critical desert tortoise habitat are taking a comprehensive, ecosystem-based approach to desert tortoise protection. If implementation of the Recovery Plan is successful, these measures will conserve not only the desert tortoise, but also the incredible diversity of plants and animals that make up the major ecosystems of the Mojave and Colorado deserts.



Anne Marie Reber

Protect the Desert Tortoise

- ✓ **Do not pick up or harass a tortoise: observe it from a distance. Tortoises store water in their bladders and can reabsorb the liquid during a drought. When frightened, they frequently empty their bladders. Loss of this important water source can be fatal.**
- ✓ **Check under your vehicle before driving away. Tortoises enjoy the shade under your car on a hot day.**
- ✓ **Observe speed limits, and be especially watchful during and after rainstorms, when tortoises often enter roadways to drink from puddles.**
- ✓ **Keep vehicles on established roads only. Vehicles will crush tortoise burrows, killing the tortoises and eggs within.**
- ✓ **Do not release captive tortoises. They may carry diseases that can be transmitted to wild tortoises.**

Tortoise lifestyles

Desert tortoises live on sand or gravel desert valleys between about 1,000 and 4,000 feet in elevation. Typically they are found in creosote bush, where scattered shrubs provide abundant space for growth of grasses and annuals. They spend much of their lives in burrows, emerging to feed and mate during late winter and remaining active through the spring. Some tortoises emerge again after summer storms. Desert tortoises eat a

wide variety of grasses and the flowers of annual plants. Like humans, they reach adulthood between the ages of 14 and 20, and live from 60 to 80 years. Eggs and hatchlings are vulnerable: 98% die before reaching maturity. Adults, however, are well protected against most predators (other than humans) and consequently are long-lived. Their longevity helps compensate for their pre-maturity mortality rate.

Desert tortoises are well adapted to living in a highly variable environment. During prolonged droughts, they retreat to burrows and reduce their metabolism and loss of water while consuming little food. Adult desert tortoises lose water at such a slow rate that they can survive for more than a year without access to free water. They are able to survive lean years, then grow and reproduce during years of favorable rainfall and forage production.

Endangered Species

Under the Endangered Species Act of 1973, Congress delegated the authority to determine the status of species to the U.S. Fish and Wildlife Service. The term *endangered species* means any species that is in danger of extinction throughout all, or a significant portion, of its range. A *threatened species* is any species that is likely to become an endangered species within the foreseeable future throughout all, or a significant portion, of its range. *Lists of Threatened and Endangered Species* are published in the Federal Register. Each state may also develop separate lists of *Rare, Threatened, or Endangered species*, using its own criteria and standards; these are known as *State Lists*. The Endangered Species Act requires that a recovery plan be written and carried out for each federally listed species.



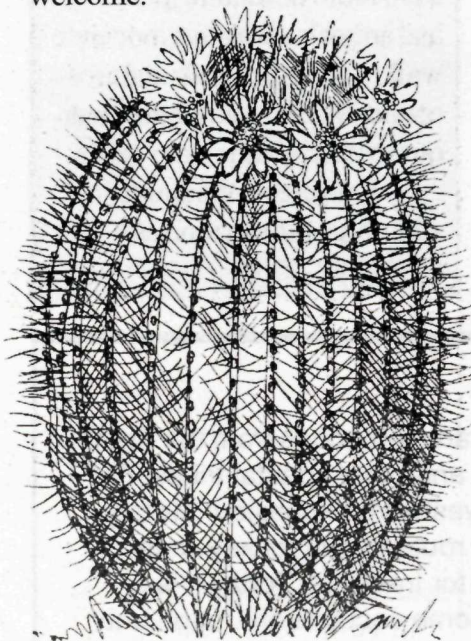
General Management Plan Nears Completion

Since 1995 the National Park Service has been preparing the first general management plan for Mojave National Preserve. General management plans (GMP) cover all resource protection, visitor use, facility development, staffing, and budget issues, and provide the overall park management strategy for the next 10 to 15 years. The first draft GMP was released to the public for review in September 1998. Following extensive public review and workshops, hundreds of comment letters were received, prompting substantial changes. A revised draft for additional public review was issued in September 2000; the public comment period for the revised GMP ended on December 8, 2000. Park Service planners will analyze these comments and issue the final general management plan in the spring of 2001. The revised draft GMP is posted on the park's webpage at www.nps.gov/moja.

Beyond the GMP, other planning efforts are underway to provide more specific direction for management, including:

- a plan for education, interpretation, and exhibits.
- a plan to guide fire management activities.
- site development concept plans for the Hole-in-the-Wall area.
- a natural and cultural resources management plan.
- a grazing management plan.
- a wilderness/backcountry management plan.

Public involvement and comments on the planning for this new desert park are always welcome.



Barrel Cactus

Acquisition consolidates preserve lands Partners aid in land transfer

A checkerboard pattern of private inholdings within public lands across the west was created in the 1860s, when the government offered land grants to railroads as an incentive to develop critical transportation routes linking east and west. In 1864, Congress gave the railroad every other section of land in a fifty mile-wide swath along what is now Interstate 40 and Route 66 between Barstow and Needles. Much of this land now falls within the boundaries of Mojave National Preserve. The railroad's lands division, which managed these properties, eventually became the Catellus Development Corporation, a real estate company with one of the largest portfolios of developable land in the western United States. Catellus decided to sell its historic desert land grant in 1997, and posted signs offering land for sale and development within the Mojave National Preserve.

Soon after, The Wildlands Conservancy began seeking private funds to purchase the lands for donation to the Preserve. The deal was finally completed in June of 2000, when 85,000 acres of land inholdings were transferred from Catellus Development Corporation to Mojave National Preserve. In addition to removing the threat of unwanted development within the preserve, the acquisition provides greater protection for the threatened desert tortoise and removes the possibility of private landowners restricting access across these lands. The Wildlands Conservancy contributed \$4.8 million coupled with \$5 million in federal funds to buy the lands, the largest purchase of private land in California's history. The Wildlands Conservancy is a non-profit corporation formed in 1995 and headquartered in Yucaipa, California.

Inventory & Monitoring Program reveals desert diversity

As you whiz through the desert encapsulated in your car, what do you see? To many, it is only emptiness. But the desert harbors hidden secrets: birds flocking to shady springs, canyons sheltering "coastal" plants, mountains of colorful minerals. To responsibly manage these treasures, the National Park Service must first know what's out there. The Inventory & Monitoring program is a systematic approach to identify-

ing and tracking park resources.

The program begins with a comprehensive inventory of current resource conditions, including plants, vertebrate animals, geologic resources, soils, and air and water quality. Later, monitoring procedures will be established to track and record both natural and human-caused changes.

The information obtained through the Inventory & Monitoring program will reach an ever-

widening circle of interested people. Park managers will draw on the inventories to make informed decisions. Rangers will incorporate new knowledge of park resources into their presentations. Eventually, everyone will have access to these inventories as they are made available on the Internet; soon you'll be able to explore the mysteries of Mojave National Preserve from the comfort of your home.

New Las Vegas area airport would impact desert visitors

Congress has approved legislation that would force the Bureau of Land Management to sell 6,000 acres of public lands to Clark County for a major new airport along Interstate 15 near Primm, Nevada, only a few miles north of Mojave National Preserve's boundary. The facility would include a three-mile long runway for wide body jets. Commercial jet traffic would typically depart in the direction of the Preserve due to prevailing winds from the south. Jets on approach to the new airport could potentially stack up for miles over the Preserve while waiting to land.

The National Park Service has continually expressed concerns to Congressional committees about the potential effects on visitors to the Preserve. Large, low flying jet aircraft would be a significant intrusion on hikers' and campers' feeling of desert solitude and silence. The few aircraft that currently fly over are normally at cruising altitudes and barely visible.

Regular overflights of large jets departing or approaching every few minutes would change that. Airport developers predict an aircraft taking off every nine minutes, twenty-four hours per day.

Noise from the departing jets could also affect bighorn sheep populations in the nearby Clark Mountains. The bighorn sheep move out of the mountains in February to lamb in the warmer, drier Stateline Hills, just west of Primm, an area that would be blasted with noise regularly during jet departures. The bighorn may be especially sensitive to intense sound blasts during lambing. The

threatened desert tortoise may also be susceptible to impacts from jet noise. The proposed airport would be located in critical habitat for the desert tortoise, whose populations have declined dramatically over the last twenty years.

The legislation approved requires that an Environmental Impact Statement be prepared on the airport before initiation of construction. However, the land transfer will occur prior to this process. Stay tuned and stay involved as the public review process for this major new threat to one of our newest National Park Service areas gets underway.

Look! Up in the sky...

During your visit, you may see military jets screaming past at barely 200 feet above the ground. The continued military use of Mojave National Preserve airspace was guaranteed by Congress when it created the Preserve. There are several military training routes that traverse the area. These routes are designated "highways" where high speed, low flying aircraft may travel from points far away, execute a mission, and return to their home base. In the unlikely event that you see these jets over the Preserve, remember that their low flying maneuvers are a critical part of military training and not just "hot dog" pilots playing.

Kelbaker Road and west

Zzyzx/Soda Springs – Historically known as Soda Springs and later renamed Zzyzx (pronounced Zye-Zix), this oasis is home to the California State University Desert Studies Center. Restrooms, nonpotable water, picnicing, nature walk.

Cinder Cones – Intense volcanic activity created more than 30 cinder cones and associated lava flows ranging in age from 10,000 to 7 million years. Easy access to lava flows from Kelbaker Road.

Kelso Depot – Built by the Union Pacific railroad in 1924 to service the steam locomotives climbing the steep Cima grade, this mission revival-style depot sits in splendid isolation along the Union Pacific Railroad. Portable toilets, **no water**.

Kelso Dunes – One of the most spectacular and popular sights in the area, the 600 foot high dunes are surrounded by 45 square miles of sand. Northwestern winds blowing fine-grained sand from the Mojave River sink created the dunes. Trailhead, restrooms, **no water**.

Granite Mountains – An imposing jumble of granite marks the south entrance on Kelbaker Road.

Hiking

Abandoned dirt roads, washes, and ridgelines offer an abundance of unmarked cross-country routes for hikers. Those listed below are popular routes. Check a guidebook or ask a ranger for more options.

Kelso Dunes – Early morning and late afternoon climbers will appreciate both the rose colored glow of the dunes and cooler temperatures. This 3 mile roundtrip hike may take several hours.

Desert Hiking Safety

Carry plenty of water—two gallons per person in the summer; a good map; and sunscreen. Wear a hat and sturdy shoes. Let someone know where you are going and when you plan to return.



Hole-in-the-Wall area and central

Cima Dome – A near-perfectly symmetrical dome rising 1,500 feet above the surrounding desert, this unusual geologic feature is best viewed from a distance. One of the world's largest and most dense Joshua tree forests grows on its slopes. Trailhead 6 miles north of Cima on Cima Road.

Rock Springs – The spring nestled in a rocky alcove was a well-known waterhole for early travelers. Camp Rock Springs, established in 1866 to protect travelers, was known as one of the most isolated and comfortless army posts in the West. Two miles east of Black Canyon Road on Cedar Canyon Road, then 0.25 mile south on unmarked dirt road. **4x4 vehicle recommended, or walk in from Cedar Canyon Road.**

Mid Hills – At 5,600 feet in elevation, pinyon pine, juniper, and sagebrush offer a welcome respite from the desert below. Campground, water, restrooms, trailhead. **Not recommended for RVs.**

Hole-in-the-Wall – Rhyolite cliffs riddled with holes and hollows are the backdrop for the information center (open seasonally). Campground, trailhead, restrooms, water, telephone.

Teutonia Peak – Explore the dense Joshua tree forest on the way to a peak on Cima Dome. Marked trail is 4 miles round trip. Trailhead near Sunrise Rock, 4 miles north of Cima on Cima Road.

Rings Trail – Descend through Banshee Canyon with the help of metal rings mounted in the rock. This 1 mile roundtrip trail connects to the Mid-Hills to Hole-in-the-Wall Trail. Trailhead near Hole-in-the-Wall Information Center.

Mid Hills to Hole-in-the-Wall – Hike from the pinyon pine and juniper down 1,200 feet in elevation through a maze of washes decorated with barrel and cholla cactus. Marked route is 8 miles one way. Watch carefully for route markers. Trail-heads at Mid Hills Campground and 0.25 mile west of Black Canyon Road on Wild Horse Canyon Road.

North and east

Clark Mountain – The only section of the Preserve north of I-15 is also its highest point at 7,929 feet. Check detailed maps or ask a ranger for access information. **4x4 vehicles recommended.**

Hotel Nipton – Built in 1910, this charming hotel on the boundary of the Preserve reflects the railroad, ranching and mining history of the small community at Nipton.

New York Mountains – These rugged mountains rise above 7,500 feet and contain some of the most interesting flora in the Mojave Desert. Hiking. **4x4 vehicle recommended.**

Lanfair Valley – Surrounded by mountains, this unique high valley shelters an impressive Joshua tree forest, and was an early ranching center. Much of the land here is private property.

Piute Creek – A narrow ribbon of willows, cottonwoods and rushes thrive along a half-mile section of Piute creek. The remains of Fort Piute, one of a string of military outposts, are visible. 9.5 miles east of junction of Lanfair Valley and Cedar Canyon Roads on a dirt utility road, then 0.5 miles north. Hiking. **4x4 vehicle recommended.**

Caruthers Canyon – Coastal chaparral plants grow in a botanical "island" left over from wetter times. Hike 3 miles through a rocky basin to an abandoned gold mining area. Be careful around unstable mine shafts. 5.5 miles west of Ivanpah Road on New York Mountains Road, then 2 miles north on unsigned road. **4x4 vehicles recommended.**

Piute Creek – Hike through Piute Gorge and explore the ruins of Fort Piute. The 6.5 mile roundtrip route is unmarked; carry a map and/or guidebook.

Mitchell Caverns: A State Park within the Preserve

Stalactites, stalagmites, helictes, shields and draperies are but a few of the cave formations on view inside Mitchell Caverns at Providence Mountains State Recreation Area. Located in the heart of Mojave National Preserve, this 5,900 acre California State Park offers cave tours, camping, and hiking in the spectacular Providence Mountains.

The guided 1-mile cavern tour highlights intricate limestone formations and narrow passageways lined with calcite crystals, which give the illusion of sparkling gems covering their walls. The tour lasts about 1½ hours and is limited to 25 people. Labor Day weekend through Memorial Day, week-day tours start at 1:30 p.m.; weekend and holiday tour times are 10:00 a.m., 1:30 p.m. and 3:00 p.m. Summer tours, from Memorial Day through Labor Day, are offered at 1:30 p.m. on weekends only. The cost is \$3 for adults and \$1 for children (under six are free). Groups should call at least three weeks in advance to arrange tours. Temperatures inside the caverns are a constant 65 degrees, so bring a light jacket; wear sturdy shoes.

Six campsites with tables and fire rings are available on a first come basis for \$8.00 per night. At 4,300 feet in elevation, the campground offers superb views of the surrounding desert. The Mary Beale Nature Trail, near the Visitor Center, features a brochure describing plants and animals along this moderate walk. Two other trails and cross-country hiking lead the adventurous to nearby mountain peaks.

For reservations and additional information call (760) 928-2586.

Mojave Road

Used by the Mojave Indians to transport goods from the Southwest to trade with the Chumash and other coastal tribes, this route later served the cause of westward expansion. Military forts were established along the route to protect key water sources and provide assistance for travelers. Today it is a popular four-wheel drive road. Some sections are rough and sandy; **4x4 vehicle recommended.**



LEAVE NO TRACE



As population centers in southern California and Nevada grow, more people will be drawn to Mojave National Preserve for its beauty and solitude. But the desert is deceptively fragile; plants that are damaged take years to recover, and tracks across open desert will not disappear for centuries. Incremental damage caused by individuals adds up to long lasting scars. No matter where we go to recreate, we should leave our camps and travel routes as we found them for the next visitor to enjoy.

Plan ahead and prepare

- Know the regulations and special concerns for the area you'll visit.
- Prepare for extreme weather, hazards, and emergencies.
- Visit in small groups. Split larger parties into groups of 4 to 6.
- Repackage food to minimize waste.

Travel and camp on durable surfaces

- Durable surfaces include established roads, trails and campsites, rock, gravel, dry grasses or snow.
- Good campsites are found, not made. Altering a site is not necessary. Within the Preserve, roadside camping is allowed only in areas that have traditionally been used as campsites. Check the partial list in this paper, or look for existing campsites.
- Keep campsites small. Focus activity in areas where vegetation is absent.

Dispose of Waste Properly

- Pack out all trash, leftover food, and litter.
- Deposit solid human waste in catholes dug 6 to 8 inches deep at least 200 feet from water, camp, and trails. Cover and disguise the cathole when finished.
- Pack out toilet paper and hygiene products.

Leave What You Find

- Preserve the past: examine, but do not collect, cultural or historic artifacts.
- Leave rocks, plants, and other natural objects as you find them.
- Do not build structures or furniture, or dig trenches.

Be Considerate of Other Visitors

- Respect other visitors and protect the quality of their experience.
- Let nature's sounds prevail. Avoid loud voices and noises.

Minimize Campfire Impacts

- Campfires can cause lasting impacts to the backcountry. Consider using a lightweight stove for cooking and enjoying a candle lantern for light.
- At Mojave National Preserve, campfires are allowed only in established fire rings or in firepans.
- Because wood in the desert is scarce, collecting firewood, even dead and down wood, is prohibited within the Preserve. You must bring in your own firewood.

Respect Wildlife

- Observe wildlife from a distance. Do not follow or approach animals.
- Never feed animals. Feeding wildlife damages their health, alters natural behaviors, and exposes them to predators.
- Protect wildlife and your food by storing rations and trash securely.
- Control pets with a leash at all times, or leave them at home.

Protect and Conserve Water Resources

- Protect riparian areas by camping at least 0.25 mile from springs and streams.
- Desert animals are dependent on the desert's scarce water sources. Many springs shown on maps are not always flowing on the surface. Conserve water sources and ensure your own supply by bringing your own water. If you must use a desert spring, avoid polluting it. Use clean cups and pots to dip from water sources.
- Do not swim in pools or small streams; body oils, lotions, and sunscreens become concentrated and pollute the spring or stream.

BOOKSTORE

Trip Planning

Mojave National Preserve Official Visitor Guide

Cheri Rae & John McKinney
Comprehensive guide to Mojave National Preserve. Contains maps, photographs, historical information, trip planning, plants, and animals.
239 pages \$12.00

Mojave Road Guide

Dennis Casebier
A must for driving the historic 4-wheel drive route through Mojave National Preserve.
232 pages \$18.50

Hiking California's Desert Parks

Bill Cunningham & Polly Burke
Contains 111 of the best hikes in Death Valley and Joshua Tree National Parks, Mojave National Preserve, and Anza-Borrego Desert State Park. Maps and elevation charts are included.
374 pages \$16.95

Topography Map of Mojave National Preserve

Trails Illustrated
Detailed map includes roads, trails, wilderness areas, and safety information.
Plastic \$8.00

Flora & Fauna

Mojave Desert Wildflowers

Jon Mark Stewart
A color field guide to 195 common and unusual wildflowers. Arranged by color, each wildflower is featured in a color photograph and short description.
210 pages \$14.95

The Lizard-Watching Guide

Sherburn R. Sanborn
Easy to use guide to common lizards of the Mojave and Colorado deserts. Each lizard is featured in a color photograph along with a description and location information. Extensive sections on life history of lizards.
36 pages \$5.95

The National Parks Pass

The pass costs \$50.00 and covers entrance fees into all National Park Service areas for one year. It is available at any National Park Service entrance station, by phone at 888-GO-PARKS or on the web at www.nationalparks.org.



Death Valley Natural History Association

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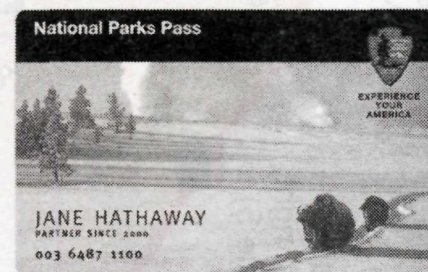
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To order:

Telephone orders are encouraged to insure that your needs are best suited. Phone us at 760-786-3285. Visa and Mastercard are accepted. Prices subject to change. Make checks payable to Death Valley Natural History Association.

Postage & handling rates:

\$1-\$10: \$2.50 \$26-\$50: \$5.50
\$11-\$25: \$4.00 over \$50: \$6.50



Become a Member

Support Mojave National Preserve by becoming a member of Death Valley Natural History Association. This non-profit organization offers quality publications through its park bookstores. Profits support information services, such as publication of this newspaper. Membership entitles you to:
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Family Lifetime.....\$125

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MOJAVE NATIONAL PRESERVE

- freeway
- paved Road
- graded dirt road
- - - - Mojave Road (4 x 4 only)
- gas
- water
- restrooms
- ranger station
- trailhead
- telephone
- camping
- roadside camping (see directions, right, guidelines, page 3)



Popular Roadside Camping Areas:
Roadside car camping is permitted in areas that have traditionally been used for this purpose. See page 6 for guidelines.

Rainy Day Mine Site – 15.2 miles south of Baker on Kelbaker Road, then 0.3 miles northeast on the road to the Rainy Day Mine. 4x4 vehicle recommended; no RVs.

Black Canyon Road – 5.2 miles south of Hole-in-the-Wall Ranger Station on the east side of Black Canyon Road.

Granite Pass – 6.1 miles north of I-40 on Kelbaker Road, just north of Granite Pass, then west on one of several access roads. Campsites are located just north of the granite spires. No RVs.

Caruthers Canyon – 5.5 miles west of Ivanpah Road on New York Mountains Road, then 1.5 to 2.7 miles north to campsites. 4x4 vehicle recommended; no RVs.

Sunrise Rock – 10.4 miles south of I-15 on the east side of Cima Road. Trailhead for Teutonia Peak Trail is nearby on the opposite side of Cima Road.

MILEAGES

	Baker Kelso Needles		
Baker	0	35	125
Barstow	60	95	150
Cima	42	17	82
Cinder Cones	15	19	110
Hole-in-the-Wall	60	26	60
Interstate 40	55	21	0
Kelso	34	0	83
Kelso Dunes	46	12	75
Las Vegas	91	88	95
Midhills	54	20	70
Mitchell Caverns	89	55	60
Needles	125	83	0