



Mojave National Preserve

Refortifying Fort Piute

STONE WALLS ARE ALL THAT REMAIN OF FORT PIUTE, WHICH WAS BUILT during the 1860s by the US Army in the Piute Range near the east boundary of Mojave National Preserve. The old stone walls won't remain standing without periodic maintenance. They have been reinforced a number of times over the years. Thanks to the efforts of a dedicated group of volunteers, this work was completed again in April 2013, fortifying this distinctive reminder of our history for another decade.

To complete the project, Mojave National Preserve worked with HistoriCorps and Cornerstones Community Partnerships, public-private partnerships formed to save and sustain historic sites. Group leaders used the project as a training session. Master stone mason Terry Alexander from HistoriCorps and Mojave National Preserve archaeologist David Nichols trained a group of ten volunteers in techniques used to stabilize the masonry walls using earthen mortar mined onsite.

Volunteers Christa and Tony Torres reported on the training:

We located, evaluated, and mixed earthen mortar from local sources. This meant finding good sources of sand, clay, and water along Piute Creek and then carrying the heavy sandbags and water buckets up a steep embankment to the ruins located about 100 meters away. The next step was to make the "mud" or mix the ingredi-



top: Volunteers at work rebedding and repointing the stone walls of Fort Piute.
bottom: The group shows off their work.

ents for the mortar. After a period of experimentation, a mix of one part clay and three parts sand was chosen as the best compromise of strength and pliability.

With careful observation and planning, we ensured that stones were replaced in their original locations. We concentrated our efforts on the horizontal surfaces of the stone walls, which ranged from five to six stone courses high (about four feet). The top surface had been heavily weathered, and much of the mortar was in poor condition. Old, loose mortar was raked from the joints. Stones were rebedded, or set back in place using a layer of mortar. The finish work is called repointing, which involves placing additional mortar into the cracks and smoothing for a neat appearance after the stones have been set. When the horizontal sections were complete, we then moved to the vertical portions of the interior and exterior walls.

Several historic artifacts were observed mixed into the existing mortar: a percussion cap from a rifle, a small metal buckle, and an embossed metal button.

We hope that our experience—and all the blood, sweat, and tears it provided to us—will ensure that Fort Piute will endure for another ten years.

Welcome to Mojave!

Cooler temperatures make winter a perfect time to visit the Mojave Desert, and the softening light as the sun passes lower in the sky offers a bolder, warmer palette for desert photographers. Spring often brings splashes of color as wildflowers bloom after winter rains. We have several photography exhibitions planned for the winter and spring months in the Desert Light Art Gallery at the Kelso Depot Visitor Center. These exhibits run from two to three months, so stop in often to see what's new.

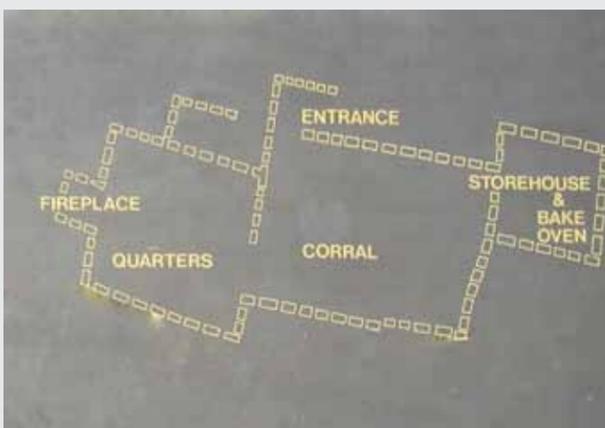
Mojave's landscape varies tremendously as you travel around the preserve, and I encourage you to take short walks in various areas. Inside this guide, you'll find information on visiting the Kelso Dunes, Cinder Cones & Lava Beds, and the Joshua tree woodland on Cima Dome. On the east side of the preserve, campgrounds and hiking trails are available for those who have more time to explore.

Over 1,000 miles of dirt roads await desert explorers in street-legal vehicles, providing access to old mining sites, springs, and roadside camps. Some routes require high-clearance vehicles, and road conditions change rapidly during rainy weather, so check with a ranger before heading out.

If you would like to learn more about what to see and do, talk to the rangers at Kelso Depot Visitor Center or Hole-in-the-Wall Information Center, visit our website, or call the headquarters information desk. Websites and phone numbers are listed on page two.

Stephanie R. Dubois
Stephanie R. Dubois
Superintendent

Piute Springs has a long history



Long before the US Army came to Piute Spring, the Mojave and Chemehuevi Tribes lived off this land for countless generations. Numerous artifacts and petroglyphs scattered throughout the Piute Creek area testify to the time they spent here.

As originally built in 1867 by men of Company D, 9th U.S. Infantry, the fort had walls up to eight feet high, with gun ports and a roof.

Fort Piute was one of many small forts and outposts along the Mojave Road linking California and Arizona, providing a military presence to protect travelers and mail routes. The outpost was staffed only briefly, until the end of 1868, when the mail shifted to another route. With its location near the abundant waters of Piute Spring and within protected canyons, the fort served as a resting stop for travelers for many years after.

Essential Information...2

Exploring Mojave...3

Features...4 & 5

Camping...6

Hiking...7

Mojave National Preserve Map...8



National Park Service
U.S. Department of the Interior

Mojave National Preserve

Established in 1994, Mojave National Preserve encompasses 1.6 million acres ranging in elevation from 800' near Baker to 7,929' at Clark Mountain. Although most of the park lies in the Mojave Desert, the southeast section grades into the Sonoran Desert, and elements of the Great Basin Desert are found at higher elevations east of the Granite, Providence, and New York mountains.

Newspaper Editor
Norma Sosa

Mailing Address
2701 Barstow Road
Barstow, CA 92311

Web and E-mail
www.nps.gov/moja
For e-mail, click "Contact Us"

Park Headquarters
ph: 760-252-6100
fax: 760-252-6174

National Park Service employees care for America's 401 national parks and work with communities across the nation to help preserve local history and create close-to-home recreational opportunities.

Desert Safety Tips

THE MAIN CAUSE OF DEATH IN MOJAVE

More people die in single-car accidents due to speeding than by any other means. Reduce your speed.

DO NOT DEPEND ON A GPS NAVIGATION SYSTEM

GPS maps of remote areas, including Mojave National Preserve, are notoriously unreliable. Carry a folding map.

CARRY AND DRINK PLENTY OF WATER

Carry a minimum of a gallon per person per day in your vehicle even if you are just passing through. You will need it in an emergency. Carry more if you plan to be active. Fluid and electrolyte levels must be balanced, so have salty foods or "sports drinks" handy as well.

BACKCOUNTRY TRAVEL

Hikers, backpackers, and those traveling on dirt roads need to be self-reliant and well-prepared. Plan ahead, carry detailed maps, and let someone know your plans.

FLASH FLOODS

While driving, be alert for water running in washes and across dips in the road. When hiking and camping, avoid canyons and washes during rain storms, and be prepared to move to higher ground.

DRESS PROPERLY FOR HIKING

Wear loose-fitting clothing and sturdy shoes that protect your feet from rocks and cactus. Use sunscreen and wear a hat. Carry a light jacket as temperatures drop dramatically when the sun goes down.

AVOID HIKING IN EXTREME HEAT

Do not hike in the low elevations when temperatures are high; the mountains are cooler in summer.

WATCH FOR SIGNS OF TROUBLE ON HOT DAYS

If you feel dizzy or nauseated, or if you develop a headache, get out of the sun immediately, and drink water or sports drinks. Dampen clothing to lower body temperature. Be alert for symptoms in others.

DANGEROUS ANIMALS

Never place your hands or feet where you cannot see first. Rattlesnakes, scorpions, or black widow spiders might be sheltered there.

MINE HAZARDS

Never enter a mine. They are unmaintained and unstable, and you might encounter pockets of bad air or poisonous gas. Stay out, and stay alive!

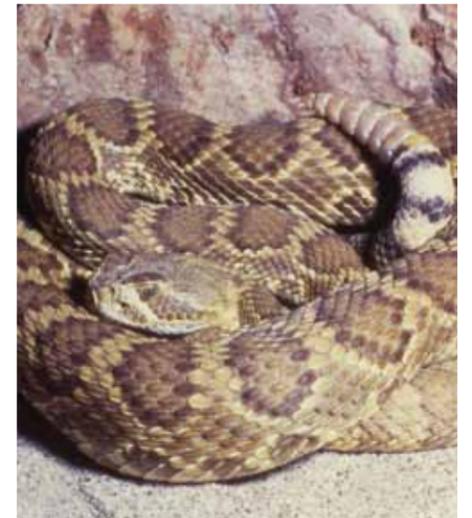
IN CASE OF EMERGENCY

Cell phones do not work in many areas. Try moving uphill to get a signal. To call for help, dial 911 or the Federal Interagency Communications Center at 909-383-5651. After calling, stay with your car until help comes.

left: Carefully assess conditions before driving across a flooded roadway.

center: Hikers, carry and drink plenty of water. Salty snacks or sports drinks keep electrolytes in balance.

right: Stay on trails to avoid unexpected encounters with rattlesnakes.



Essential Information

Dates and Hours of Operation

The preserve is always open. Information centers (see below) maintain regular hours of operation.

Fees and Reservations

There are no entrance fees. See page 6 for information about campground reservations and fees.

Information Centers

Three information centers provide orientation, information, and trip-planning advice. Park rangers are on duty. Western National Parks Association (WNPA) bookstores offer books, maps, and more.

Kelso Depot Visitor Center

Located 34 miles south of Baker, Calif. on Kelbaker Road. Open Friday through Tuesday, 9 a.m.–5 p.m. Closed Wednesday and Thursday.

Hole-in-the-Wall Information Center

Located near Hole-in-the-Wall Campground. Winter hours (October–April): Friday through Sunday, 9 a.m.–4 p.m. Summer hours (May - September) Saturday, 9 a.m.–4 p.m.

Headquarters Information Center

Located at 2701 Barstow Road, Barstow, Calif. Open Monday through Friday, 8 a.m.–4:00 p.m.

Food

Limited snacks are available in the Western National Parks Association stores at Kelso Depot Visitor Center and Hole-in-the-Wall Information Center, but there is no restaurant. Restaurants are located along I-15 at Barstow and Baker, Calif. and along I-40 at Ludlow, Fenner, and Needles, Calif.

Water

Drinking water is available only at Kelso Depot Visitor Center, Hole-in-the-Wall Information Center, Hole-in-the-Wall, Black Canyon and Mid-Hills campgrounds.

Gasoline

There are no gasoline stations within Mojave National Preserve. Gasoline can be purchased along I-40 at Needles, Fenner, and Ludlow, Calif., along I-15 at Baker, Calif., the Cima Road exit, and Primm, Nev., and along U.S. 95 at Searchlight and at the Nev.163 junction south of Cal-Nev-Ari, Nev.

Lodging

There are no motels within Mojave National Preserve. Lodging may be available in Barstow, Nipton, Ludlow, Needles, Baker, and Twentynine Palms, Calif., and in Primm and Searchlight, Nev.

Bicycles

Bicycles are allowed in parking areas, on paved roads, and on existing, open dirt roads. Bicycles are not allowed in Wilderness Areas or for cross-country travel.

Pets

Although not allowed inside information centers, pets are welcome elsewhere. They must be leashed and never left unattended. Dogs used during hunting activities must be under the owner's control at all times. Pet excrement must be collected and disposed of in garbage receptacles.

Permits

Permits are required for all organized events, group events (more than 15 individuals or 7 vehicles), and commercial activities such as filming. Fees apply. Proof of insurance and posting of a bond might also be required. Call 760-252-6107 or visit www.nps.gov/moja for more information.

Hunting and Firearms

Hunting is permitted in accordance with state regulations. All hunting activities require a license; additional permits and tags might apply. Visit the California Department of Fish & Wildlife website at <http://www.dfg.ca.gov/> for more information.

Target shooting or "plinking" is prohibited. All firearms transported within the preserve must be unloaded, cased, and broken down, except during lawful hunting activities. No shooting is permitted within ½ mile of developed areas, including campgrounds, information centers, Kelso Dunes, Fort Piute, Sweeney Granite Mountains Desert Research Center, and the Desert Studies Center at Zzyzx.

Collecting and Vandalism

Disturbing, defacing, or collecting plants, animals, rocks, historic or archeological objects is prohibited. Leave these resources as you find them for everyone to enjoy. Metal detectors are not allowed.

Private Property

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

Cattle and Fences

Most grazing within Mojave National 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. Watch for cattle on roadways.

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. Firewood might be available for purchase at Baker, Fenner, Needles or Nipton, Calif. Campfires are allowed in campground fire rings and other established sites. To minimize your impact, use a firepan and pack out the ashes. Please do not leave fires smoldering or unattended.

Exploring Mojave

Scenic Cima Road connects I-15 with Cima, Calif., traversing the world's largest concentration of Joshua trees.

Avenues to Adventure

Mojave National Preserve is vast. At 1.6 million acres, it is the third-largest unit of the National Park System in the contiguous United States. While much of Mojave's wild and historic splendor is available only to those who travel its trails and unmaintained roads, the primary roads of the preserve offer endless opportunities for exploration (see map on page 8).

Kelbaker Road

A 56-mile paved road stretching from I-15 at Baker, Calif. in the north to I-40 east of Ludlow, Calif. in the south, Kelbaker Road winds past cinder cones, lava flows, Kelso Depot, Kelso Dunes, and the Granite Mountains.

Cinder Cones & Lava Flows

No signs or services.

About 14 miles southeast of Baker, Kelbaker Road traverses a 25,600-acre area of lava flows and volcanic cinder cones thought to range in age from 10,000 to 7 million years old. In 1973, the area was designated as Cinder Cones National Natural Landmark due to its scenic beauty and exceptional geological value. Aiken Mine Road (19 miles southeast of Baker, Calif.) offers an interesting side trip through the heart of the area and access to a lava tube. **High clearance and four-wheel drive recommended.**

Kelso Depot Visitor Center

Information, exhibits, orientation film, art gallery, bookstore, restrooms, water, picnic area. Open Friday—Tuesday, 9 am to 5 pm.

Located 34 miles southeast of Baker, Kelso Depot began operation in 1924 and served as train station, restaurant, and employee housing on the Los Angeles and Salt Lake route of the Union Pacific Railroad. Now Mojave National Preserve's principal information center and museum, extensive exhibits describe the cultural and natural history of the preserve. Historically furnished rooms offer a glimpse into Kelso's past.

Kelso Dunes

Self-guiding trail, pit toilets, no water.

About 42 miles southeast of Baker (8 miles south of Kelso Depot), then 3 miles west on a graded dirt road. Nearly 700 feet high and covering a 45-square-mile area, the Kelso Dunes were created over the course of 25,000 years by winds carrying sand grains from the dried Soda Lake and Mojave River Sink located to the northwest. The Providence and Granite mountains served as barriers that trapped the blowing sand. The dunes produce a "booming" or "singing" sound when sand with the right moisture content slides down the steep slopes. Try it for yourself—run down a dune slope (but don't trample vegetation!) to initiate the sound.

Granite Mountains

No signs or services.

An imposing jumble of granite marks the south entrance to the preserve, 50 miles southeast of Baker on Kelbaker Road. Portions of the Granite Mountains lie within the University of California's Desert Research Center; please respect the signs that mark the boundary. **High clearance and four-wheel drive recommended.**

Clark Mountain

No signs or services.

The only portion of Mojave National Preserve north of I-15, Clark Mountain is also its highest point, at 7,929 feet. A relict white fir grove near the top is one of only three in the Mojave Desert. Check detailed maps or ask a ranger for access information. **High clearance and four-wheel drive recommended.**

Cima Road

About 26 miles east of Baker, Calif., the paved Cima Road connects I-15 with Cima, Calif., 16 miles to the southeast.

Cima Dome & Joshua Tree Woodland

Self-guiding trail, no water.

The near-perfect symmetry of Cima Dome rises 1,500 feet above the surrounding desert and is home to the world's largest concentration of Joshua trees. The top of the dome is located west of Cima Road, this unusual geologic feature is best seen from a distance. Try the view looking northwest from Cedar Canyon Road, 2.5 miles east of Kelso Cima Road.

White Cross World War I Memorial

Located 12 miles south of I-15 on Cima Road, this memorial is owned and operated by the Veterans of Foreign Wars.

Cedar Canyon & Black Canyon Roads

Mostly unpaved, the 20-mile Cedar Canyon Road connects Kelso Cima Road in the west with Ivanpah Road in the east, paralleling (and sometimes joining) the historic Mojave Road. Black Canyon Road (unpaved north of Hole-in-the-Wall) connects Cedar Canyon Road with Essex Road, 20 miles to the south.

Rock House

Loop trail, wayside exhibits, pit toilet, picnic table.

5 miles east of Black Canyon Road on Cedar Canyon Road. The Rock House is emblematic of creative desert building styles. Nearby Rock Spring, located along the loop trail, was the site of a military outpost along the Mojave Road.

Mid Hills

Campground, trailhead, pit toilets, water. Not recommended for RVs.

About 2 miles west of Black Canyon Road at the north end of Wild Horse Canyon Road, Mid Hills supports pinyon-juniper woodland habitat. The effects of a fire that swept through the area in June 2005 are evident, although several campsites in the popular campground still contain shady stands of pinyon pine and juniper.

Hole-in-the-Wall

Information center, bookstore, campgrounds, picnic area, trailhead, restroom, water, telephone.

Just north of the junction of Black Canyon and the south end of Wild Horse Canyon Roads, rhyolite cliffs riddled with holes and hollows are the backdrop for Hole-in-the-Wall.

Piute Spring

About 7.4 miles west of U.S. 95 on the unmarked and unpaved Mojave Road, then 3.1 miles west on an extremely rough unmarked dirt road. **High clearance and four-wheel drive recommended.**

Fort Piute and Piute Spring

Trails, wayside exhibits, no services.

Willows, cottonwoods, and rushes thrive along a half-mile section of Piute Creek. Fort Piute (still visible) was one in a string of military outposts built along the Mojave Road. Please don't climb on the foundations or remove anything.

Dirt Road Driving

Prepare Your Vehicle

Ensure that your vehicle is in good condition: check tires, oil, and gas gauge.

For emergencies, carry tools, tire jack, towrope, extra water, and fluids for your vehicle.

Know the Rules of the Road

All vehicles operating within Mojave National Preserve must be street-legal in accordance with California DMV requirements, including current registration and tags, lights and turn signals, and valid insurance. California "Green Sticker" and "Red Sticker" programs are not recognized within the preserve.

Off-pavement travel is allowed only on existing, open dirt roads. Do not travel cross-country or create new routes. This rule is strictly enforced; violators will receive citations. Driving in washes is not permitted. Watch for and respect Wilderness Boundary signs; motorized vehicles and bicycles are not allowed in designated Wilderness Areas.

Check Road Conditions

Road conditions vary widely. Dirt roads might be rough, sandy, or muddy, rendering them impassable, and the unprepared motorist could be trapped many miles from help. Watch for cattle, burros, and other wildlife on roadways.

Not all roads are shown on all maps; traces and illegal shortcuts add to the confusion. Carry a good map, and ask a park ranger for current road conditions.



NPS COLLECTION

Zzyzx Road

Six miles southwest of Baker on I-15, Zzyzx Road leads 5 miles south into the preserve along the western shore of Soda Dry Lake.

Zzyzx/Soda Springs

Self-guiding trail, wayside exhibits, pit toilets, non-potable water, picnic area.

Historically known as Soda Springs and later renamed Zzyzx (pronounced ZYE-zix), this oasis is home to the California State University Desert Studies Center. The buildings and pond were developed in the 1940s by Curtis Springer, who operated a health resort at the site. Zzyzx is open to the public—stroll around Lake Tuendae and along the shore of Soda Dry Lake. Please do not disturb participants when classes are in session.

Nipton, Ivanpah & Lanfair Roads

Eleven miles south of Primm, Nev., Nipton Road begins at I-15 and passes through Nipton, Calif., 11 miles east. Ivanpah Road (only the 10 northernmost miles paved) heads southeast of Nipton Road, through the Ivanpah and Lanfair valleys, eventually connecting with the paved Lanfair Road and the Fenner Valley. Together stretching 46 miles, Ivanpah and Lanfair roads connect the northern preserve boundary (bordering Nipton Road) with the southern near Goffs, Calif.

Hotel Nipton

NPS exhibits; privately operated hotel, store, & campground; for information call 760-856-2335 or email at stay@nipton.com.

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

Caruthers Canyon

Primitive camping, hiking, no signs or services.

About 5.5 miles west of Ivanpah Road on New York Mountains Road, then 2.7 miles north on an unsigned road, Caruthers Canyon is located in the rugged New York Mountains. Surrounded by mountains rising over 7,500 feet, a botanical "island" of chaparral plants remains from wetter times of the past. **High clearance and four-wheel drive recommended.**

Sand & Mud Driving Tips

- Be sure to carry plenty of drinking water and emergency supplies.

- Engage four-wheel drive before entering deep sand or mud.

- Don't gun the engine—this will spin the tires, dig you in deeper, and could bury your vehicle to the frame. Smooth, easy power is better than too much power; use low gearing and just enough throttle to maintain forward movement.

- If you detect a loss of traction, turn the steering wheel rapidly from side-to-side—this might help to generate traction.

- If your vehicle gets stuck, place solid materials (such as floor mats) under the tires to provide traction.

- If you're really stuck, it's best to stay with your vehicle. A stationary, stranded vehicle is much easier to locate than a person traveling on foot. Avoid strenuous activity during the heat of the day; stay in the shade of your vehicle.

Lanfair Valley

No signs or services. Mojave Desert Outpost, a privately-owned campground, is located here. For information call 951-780-3179.

South of the New York Mountains along Ivanpah and Lanfair roads, this high valley shelters an impressive Joshua tree forest and was an early ranching and homesteading center. From 1893 until 1923, the Nevada Southern Railway ran up the valley from Goffs, providing services to homesteaders and ranchers in the valley and to miners in the mountains beyond. While little evidence remains of homesteads that once dotted the valley, tracts of private property still exist. Please respect the rights of landowners.

Did you see that?

By Christina Mills, Park Ranger

FROM SPRING THROUGH FALL, VISITORS frequently glimpse something small—less than a foot long and low to the ground—racing across the roads or trails. When asked to describe the animal’s tail, visitors often didn’t see one. If the critter was seen in the campground, chances are it tried to beg food or darted in to grab any food that was dropped on the ground. If folks get a good look at it, they usually say that it looked like a chipmunk.

But desert chipmunks and rock squirrels live in rocky areas with pinyon and juniper forests. Have you seen many trees or forests in Mojave National Preserve? That pretty much rules out chipmunks and rock squirrels in most parts of the preserve!

Chances are that you saw a ground squirrel.

Ground squirrels are specially adapted to arid desert conditions. They dig extensive burrows under plants such as creosote. Highly efficient kidneys conserve water, so ground squirrels can get all the mois-

ture they need to survive from the leaves, seeds, flowers, and occasional bugs that they eat.

There are two species of ground squirrels commonly found in the preserve, the white-tailed antelope ground squirrel and the round-tailed ground squirrel. They are both about seven to nine inches long, with tails about two inches long that are usually curled over their backs when they move. The antelope ground squirrel has stripes on its sides; the round-tailed ground squirrel does not. Ground squirrels often dig several burrows for different purposes, and mounds of dirt mark the entrances to their tunnels. Many desert animals are nocturnal, but ground squirrels are most active during daylight hours. They generally live one to three years in the wild, and they serve as food for predators such as gopher snakes, rattlesnakes, coyotes, and hawks.

Ground squirrels can survive in some of the hottest and driest places on Earth, including the Mojave Desert in America and the Kalahari Desert in Africa. Summer



Why is the tail down? The white-tailed antelope ground squirrel is most often spotted with his tail flipped up over the back.

The Desert Tortoise-Engineer of the Mojave

By Seth Shteir



THEY ARE THE MOJAVE DESERT’S FOUR-LEGGED engineers, excavating burrows with giant claws. This armor-plated reptile can be mistaken for a rock, dines on tender vegetation and flowers, spends most of its life underground, and can survive without drinking water for more than a year.

Desert tortoises (*Gopherus agassizii*) are found in eastern California, southern Nevada, southwestern Utah, southern Arizona, and parts of Mexico. Once a common desert dweller, it is now listed as a threatened species. The animal’s home includes sandy flats and washes, pebble-strewn alluvial fans, and rocky canyons between 1,000 and 4,000 feet above sea level. Almost a million acres of land within Mojave National Preserve is suitable tortoise habitat, with the Ivanpah and Fenner Valleys being two of the best locations.

Desert tortoises are remarkably adapted to life in the extreme temperatures and scant rainfall of the Mojave Desert. Tortoises are ectothermic, which means they depend upon the external air and ground temperatures, as well as upon their own behavior, to regulate their body temperature. With their large front claws, tortoises dig burrows for protection from extreme temperatures and wind. The animals cope with hot summer temperatures by estivating, or remaining dormant for periods of time, in shallow summer burrows. During dawn and dusk, they patrol the desert for tender vegetation, and they sometimes sleep outside in shallow depressions beneath a creosote bush or other vegetation. During the winter, desert tortoises hibernate in deep burrows to avoid freezing temperatures; this slows their heartbeat and breathing to conserve energy and water.

Although tortoises don’t listen to televised weather reports, they can sense when it’s going to rain. At these times, desert tortoises clamber to water holes to drink and even scoop out shallow depressions that can serve as their own personal reservoirs. Like the camels of the Arabian Desert, the tortoise is able to store water. The bladder serves as its water tank, recycling water so efficiently that they can go without drinking for more than a year. Drivers should slow down on desert roads, especially during rainy weather, as tortoises often drink from puddles along the highway after rain storms.

If you are lucky, you might see a tortoise munching on multi-hued spring wildflowers along Kelbaker Road. Observe,

but don’t disturb, these amazing animals! When people see tortoises, they often think the animals need help. They sometimes take the tortoises home or to preserve visitor centers. “The most important thing you can do to protect tortoises is to enjoy viewing them from a respectful distance,” says Linda Slater, Chief of Interpretation at Mojave National Preserve. “Once tortoises are caught, they cannot be returned to the wild.”

Handling a tortoise can cause it to empty its bladder as a self-defense mechanism that can result in a tortoise becoming dehydrated. It can also kill them. Handling of these ancient reptiles by humans can also lead to the spread of a respiratory tract virus in the population.

Tortoises are an ancient type of reptile that has stood the test of time. But, with so many changes in the desert in recent years, tortoise populations have declined. Development in the desert has increased trash and standing water, and this has inflated populations of ravens and other predators that eat young, soft-shelled desert tortoises. Cars and off-road vehicles, traveling at high speeds, run over tortoises and sometimes crush their burrows. People also take tortoises home for pets. Renewable energy development, which is likely to increase in the future, degrades habitat and blocks movements by the tortoise. Invasive plants out-compete native species that are important sources of tortoise food. And finally, drought, which may become more common due to climate change, decreases annual wildflower displays in spring and summer. These are the best food for tortoises.

Scientists seeking to monitor tortoise populations find that this is no easy task. Tortoises spend most of their time below ground, so counting them is difficult. However, most scientists agree that tortoise populations crashed in the early 1990s. Today, their numbers appear to be somewhat stable, but extensive renewable energy development outside preserve boundaries could precipitate another decrease in tortoise populations.

Rangers and biologists are working to reduce tortoise mortality from a variety of causes. Park rangers have increased road patrols to slow traffic speeds. Wildlife Biologist Neal Darby is keeping a watchful eye on power lines and railroad bridges for evidence of predatory ravens, known

continued on page 5

Mojave Temperatures: Average High / Low

	Granite Mountain Elevation 4,200 feet	Zzyzx Elevation 930 feet
January	50°F / 36°F	61°F / 34°F
February	54°F / 38°F	69°F / 40°F
March	59°F / 41°F	74°F / 46°F
April	68°F / 48°F	83°F / 53°F
May	75°F / 54°F	93°F / 61°F
June	85°F / 63°F	103°F / 70°F
July	90°F / 67°F	109°F / 77°F
August	89°F / 66°F	107°F / 75°F
September	83°F / 61°F	100°F / 68°F
October	73°F / 52°F	77°F / 55°F
November	59°F / 41°F	73°F / 46°F
December	50°F / 34°F	62°F / 34°F
Average Annual Precipitation	8.5 inches	3.37 inches

daytime temperatures in portions of both deserts regularly exceed 110 degrees for months at a time, while the actual ground temperature can reach 140 degrees!

So how do ground squirrels survive in such harsh conditions? Instead of hibernating like other animals do in the winter, ground squirrels estivate or sleep lightly through most of the hot summer months to conserve energy. While active during the day, they prefer the cooler periods of dawn and dusk for feeding. If they must forage during the heat of the day, ground squirrels leave their burrows for only short periods of time then quickly return to cool down. Squirrel burrows remain at a constant temperature year-round, protecting them from the extreme highs and lows of desert temperature variations.

Wait, there it goes again, racing across the ground in front of you!

Now that you know what to look for, you might see the tail curled over its back and maybe even whether it has stripes or not. These cute ground squirrels, along with reptiles and birds, are the animals that you are most likely to see while hiking or sightseeing at Mojave National Preserve.

Protect the desert tortoise

Don't dump or litter.

Garbage attracts ravens and other predators that feed on tortoise eggs and hatchlings.

Don't release pet tortoises into the wild.

They may carry diseases that will spread to wild tortoises. Contact a ranger to learn about tortoise adoption programs.

Check beneath your vehicle before driving away.

Tortoises sometimes rest in the shade of a car.

Do not take a tortoise.

It is illegal to remove tortoises from the wild.

If you see a tortoise, stay back.

Approaching too closely may cause a tortoise to spray urine in self-defense—a potentially fatal loss of fluid.

Reduce driving speeds and watch for tortoises on desert roadways.

Desert Tortoise- Engineer of the Mojave *continued from page 4*

to devour young tortoises whose shells have not yet hardened. He encourages drivers to check for tortoises in the shade under their cars before driving away. Darby is restoring native plants in old livestock corrals, springs, and around water tanks—places where tortoise like to search for juicy plants.

According to Darby, education is also an important component in protecting the desert tortoise. “Rangers visit classrooms

throughout the year to teach young people about this marvelous desert animal,” says Darby. “Desert residents are big fans of the desert tortoise. If the public knows and understands how their actions affect the tortoise, they will do what they can to help protect this symbol of the desert.”

Seth Shteir is California Desert Field Representative for the National Parks Conservation Association in Joshua Tree, California.

Meet Mojave's Volunteer Coordinator

IF YOU VOLUNTEER AT MOJAVE NATIONAL Preserve, the first ranger you are likely to meet is Volunteer Manager Christina Mills. Originally from Youngstown, Ohio, Ranger Mills worked at Big Bend, Carlsbad Caverns, and Guadalupe Mountains National Parks before moving to Mojave National Preserve in 2000. “I didn't plan to spend my career living and working in desert parks, but that's just the way things worked out,” explains Chris.

As the volunteer manager, Ranger Mills recruits and coordinates placement for more than 100 volunteers per year. “Volunteers are vital for park operations, and I work with so many wonderful people through the volunteer program,” says Chris. “In the National Park Service, ‘VIP’ stands for Volunteer-in-Park, in addition to the more common meaning of Very-Important-Person.”

While some volunteers participate in a one-day project, many live and work in the preserve for two to three months at a time. Volunteers staff information desks; serve as camp hosts; maintain park trails; survey cultural sites; monitor springs, wildlife, and plants; and repair buildings

and equipment. Some enjoy sharing their in-depth knowledge by providing interpretive programs during busy months.

Volunteers are of all ages and have diverse backgrounds. Typically they are self-reliant, don't mind living in a remote environment, and share an interest in the out-of-doors—and especially in National Parks. The experience provides volunteers with the opportunity to immerse themselves in the resource as they contribute in a meaningful way.

Sue Ryan, park volunteer, had this to say about the program: “My husband, Tom, and I have volunteered for the National Park Service for four assignments—three of them at Mojave. Because of Chris's professionalism and attention to detail, we have everything we need to do the job and have fun, too, so we keep coming back. Mojave is a very special place, and Chris is a big part of why it is so special.”

Volunteer positions are found on the park website, www.nps.gov/moja. For additional information, contact Ranger Christina Mills at Christina_Burns@nps.gov or at 760 252-6123.



Volunteers Tom Ryan, Sue Ryan, and Leigh Lindstrom study maps with volunteer coordinator Christina Mills.

The Beanery Lunch Counter closes...again



Mike Williams operated the lunch counter at Kelso Depot Visitor Center from 2009 to 2013.



tional Park Service, eventually took over the building and started to make repairs. Kelso Depot became part of the National Park Service when Mojave National Preserve was established by Congress in 1994.

The National Park Service began renovating Kelso Depot in 2002, and the ribbon cutting ceremony occurred in 2005. Once again visitors could enter the historic building, climb the original wooden stairs, watch the many trains go by, and relax on the inviting covered porch. But something was still missing—visitors couldn't get something to eat. Plans were made for a concessioner to re-open the Beanery to provide food service. Funding was obtained, kitchen and food service equipment was purchased and installed, and a concession contract was developed.

The business prospectus was opened to all interested bidders in 2008, but no bids were received. The prospectus deadline was extended again and again, and finally a bid was approved. The Beanery opened in March 2009, and the decades-old eatery came alive again. Mike and Marilyn Williams of Yucca Valley ran the lunch counter, and Mike became a familiar friendly face to the new and returning visitors to Kelso Depot. The Beanery proved popular with passing visitors, local residents, and men and women assigned to area military bases.

But the Beanery contract expired on October 31, 2013. The concessioner, ready to retire for a second time, declined to submit a bid to continue his contract. “I've enjoyed meeting people from around the world here at Kelso,” Williams said. “But it's time for me to move on to other activities.” Since no new operator has been found, the Beanery lunch counter is closed. Mojave National Preserve is now exploring various options to provide limited food service to visitors until a concessioner is found to operate the Beanery again.

By Christina Mills, Park Ranger

COMMERCIAL SERVICES SUCH AS RESTAURANTS and hotels that are operated inside national parks are provided by contracted businesses called concessions. This includes the Beanery lunch counter at Kelso Depot Visitor Center. Concession contracts are let for a defined period of time. When the Beanery concession contract was nearing its end in early 2012, and the existing concession operator was not interested in extending, the National Park Service developed a business prospectus and opened it to all interested bidders. But despite a search of over a year, a new concessioner has not been found. As of November 1, 2013, the Beanery is closed.

But this isn't the first time that Beanery operations have ended.

Kelso Depot was built in 1924 by the Union Pacific (UP) Railroad. The graceful Mission-Revival style of the building was chosen to compete with the elegant Harvey Houses of that time period along the Santa Fe Railroad. While not as fancy as a Harvey House restaurant, the Beanery at Kelso served UP passengers and employees, as well as local residents, for more than 60 years before the Kelso Depot closed in 1985.

Union Pacific planned to demolish the depot after closing it, anticipating vandalism and liability issues, but local residents banded together to save Kelso Depot from destruction. The Bureau of Land Management (BLM), which managed this part of the desert before the Na-

Camping & Backcountry Travel

Backcountry Guidelines & Regulations

Backcountry travel and camping—backpacking, roadside camping, and horsepacking—require careful planning in order to ensure a safe and rewarding experience. Visitors should adhere to National Park Service regulations and are further encouraged to follow Leave No Trace guidelines to minimize their impact on the fragile desert environment. Additional regulations apply for roadside camping (see below) and horsepacking (talk with a park ranger or visit us online for more information: www.nps.gov/moja).

Leave No Trace principles are rooted in scientific studies and common sense. The message is framed under seven Leave No Trace Principles presented below with accompanying regulations and guidelines specific to Mojave National Preserve:

1. Plan Ahead and Prepare

- There is no permit or registration system for backcountry camping at Mojave National Preserve; be sure to notify others of your travel itinerary.
- Few established trails exist; carry a good map and familiarize yourself with desert travel and survival skills before beginning your trip.

2. Travel and Camp on Durable Surfaces

- Reuse existing campsites (required for roadside camping—see below).
- Do not make camp in a dry wash—flash floods develop quickly in the desert.
- Camping is limited to a maximum of 14 consecutive days per visit/stay and 30 total days per year.
- Campsites must be more than 200 yards from any water source.
- Camping is not permitted: within 1/4 mile of any paved road; within 1/2 mile of Fort Piute or Kelso Depot; within 1 mile north (i.e., the crest of the dunes) or 1/4 mile south of the Kelso Dunes access road. (Exceptions may apply for roadside camping—see below.)

3. Dispose of Waste Properly

- Store all food and garbage in a manner that will prevent access by wildlife. Carry plastic bags and pack out all trash.
- Bury human waste in catholes 6-8 inches deep, at least 200 feet from water, camp, and trails. Pack out all toilet paper and hygiene products.
- Pet excrement must be collected and disposed of in garbage receptacles.

4. Leave What You Find

- Disturbing, defacing, or collecting plants, animals, rocks, and historic or archeological objects is prohibited. As part of our national heritage, these resources should be left as they are found for all to enjoy. Metal detectors are not allowed.

5. Minimize Campfire Impacts

- Campfires are allowed in established fire rings only, or with use of a portable firepan (be sure to pack out ashes). Do not leave fires smoldering or unattended.
- Cutting or collecting any wood, including downed wood, is prohibited. All firewood must be brought into the preserve.

6. Respect Wildlife

7. Be Considerate of Other Visitors

This copyrighted information has been reprinted with permission from the Leave No Trace Center for Outdoor Ethics. For more information or materials, please visit www.LNT.org or call 303-442-8222.



Friends and family enjoy the spectacular setting of Hole-in-the-Wall Campground.

Campgrounds

Hole-in-the-Wall Campground

Facilities: pit toilets, trash receptacles, potable water, fire rings, picnic tables, dump station; no utility hookups.

Fees: \$12 per site per night, \$6 for America the Beautiful Senior/Access Pass holders.

Reservations: not accepted; campsites available on a first-come, first-served basis.

At 4,400 feet in elevation, Hole-in-the-Wall Campground is surrounded by sculptured volcanic rock walls and makes a great basecamp for hikers (see p.7) and for exploring nearby Mitchell Caverns in the Providence Mountains State Recreation Area. Thirty-five campsites accommodate RVs and tents; two walk-in sites are also available.

Mid Hills Campground

Facilities: pit toilets, trash receptacles, potable water, fire rings, picnic tables; no dump station or utility hookups.

Fees: \$12 per site per night, \$6 for America the Beautiful Senior/Access Pass holders.

Reservations: not accepted; campsites available on a first-come, first-served basis.

The Hackberry Fire swept through the Mid Hills area in June 2005, burning much of the vegetation. About half of the 26 campsites were left unharmed, however—they remain surrounded by pinyon pine and juniper trees. At 5,600 feet in elevation, Mid Hills is much cooler than the desert floor below. The access road is unpaved and is not recommended for motorhomes or trailers.

Black Canyon Equestrian & Group Campground

Facilities: corrals, pit toilets, trash receptacles, potable water, fire ring, grill, picnic shelter with tables.

Fees: \$25 per group per night.

Reservations: required; call 760-928-2572 or 760-252-6104

Located across the road from Hole-in-the-Wall Information Center. Ideal for both large groups and for riders - bring your own horse! Permits required for large groups (see p.2 for permit information).

Nearby Camping Areas

Afton Canyon

25 miles southwest of Baker on I-15, has a BLM campground with tables and fire rings for \$6 per night.

Commercial camping is also available at Baker, Barstow, Needles, and Nipton, Calif.

Inside Mojave National Preserve, Mojave Desert Outpost is a private campground on Lanfair Road. For information call 951-780-3179 or check www.mojavedesertoutpost.com.

Roadside Camping

Roadside vehicle camping is permitted in areas that have been traditionally used for this purpose. By reusing existing sites, you help protect the desert from further damage. Sites with existing rock fire rings should be considered disturbed and suitable for roadside camping. Many roadside camping sites cannot accommodate multiple vehicles; please don't enlarge them. Do not camp along paved roads or in day-use areas, and stay at least 200 yards from all water sources.

The National Park Service encourages roadside campers to use the following, selected sites:

Near Kelbaker Road:

Rainy Day Mine Site

15.2 miles southeast of Baker on Kelbaker Road, then 0.3 miles northeast on the unsigned and very sandy road to the Rainy Day Mine. Four-wheel drive recommended; no RVs.

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. High clearance vehicle recommended; no RVs.

Kelso Dunes Mine

4 miles west of Kelbaker Road on the unpaved Kelso Dunes Road. One campsite is located south of the road, ¼ mile past the marked trailhead. Several others are available ¾ mile beyond, near a clump of trees. Except at these sites, roadside camping is prohibited along Kelso Dunes Road (including at the trailhead).

Near Cima Road:

Sunrise Rock

12 miles south of I-15 on the east side of Cima Road. Campsites are behind the White Cross World War I Memorial. Trailhead for Teutonia Peak Trail is nearby on the opposite side of Cima Road.

Near Black Canyon Road:

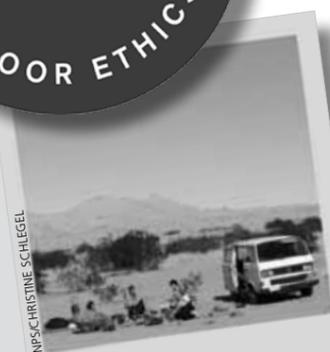
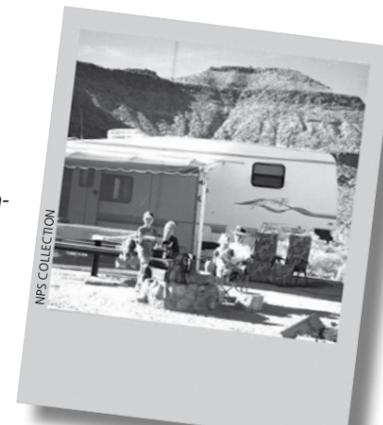
Black Canyon Road (East)

4 miles south of Hole-in-the-Wall Information Center on the east side of Black Canyon Road, above a wash and near a hill with views of the Providence Mountains. Another site is located about 4 miles further south, near rock piles.

Near Ivanpah and Cedar Canyon Roads:

Caruthers Canyon

5.5 miles west of Ivanpah Road on New York Mountains Road, then 1.5 to 2.7 miles north to campsites. High clearance and four-wheel drive recommended; no RVs.

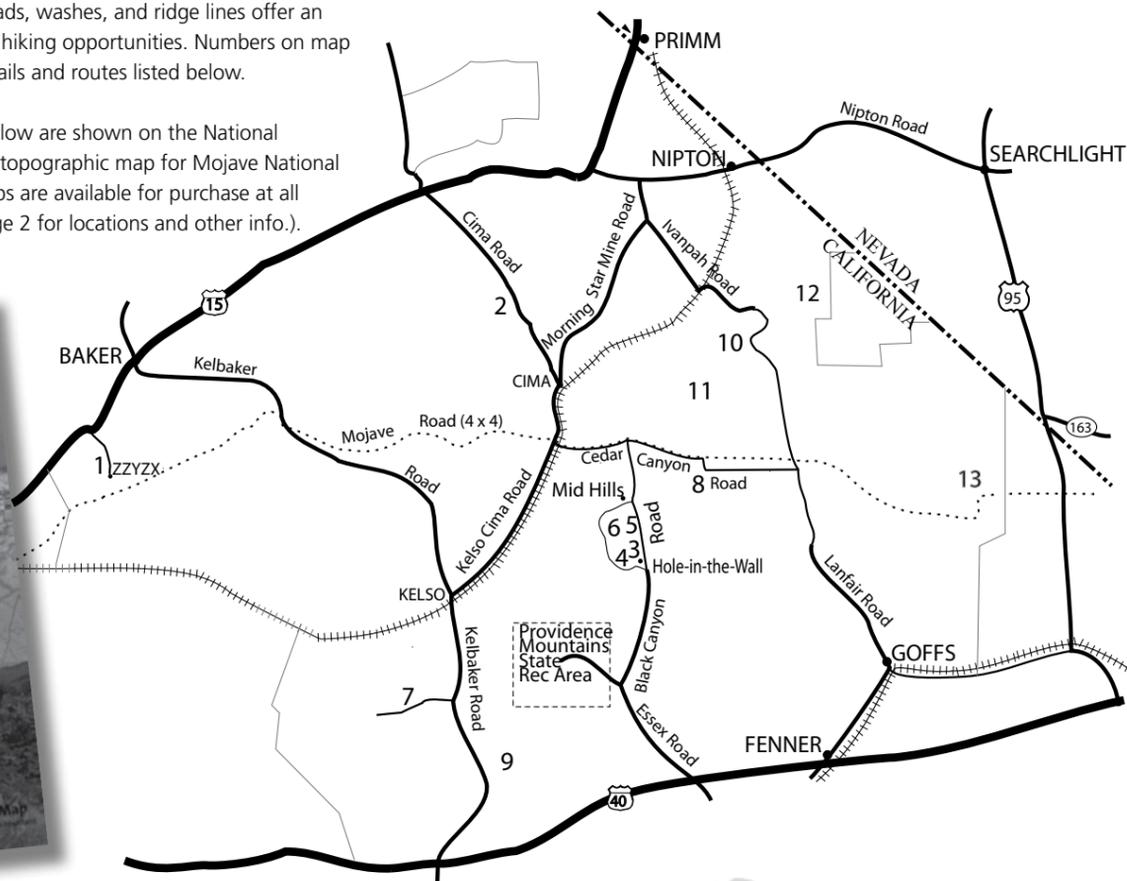
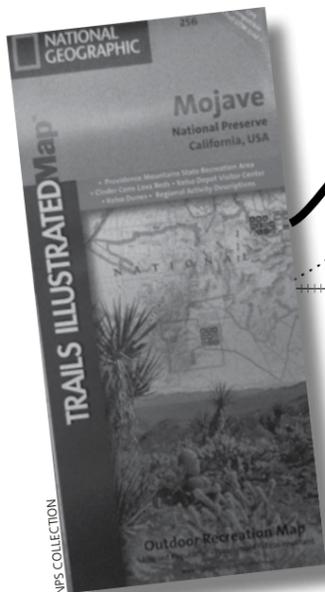


Hiking

Sweeping vistas and opportunities for solitude are a part of every hike in Mojave. Options range from short loop trails to all day cross-country hikes.

Although there are few established hiking trails in Mojave National Preserve, abandoned dirt roads, washes, and ridge lines offer an abundance of cross-country hiking opportunities. Numbers on map show general locations of trails and routes listed below.

All trails and routes listed below are shown on the National Geographic Trails Illustrated topographic map for Mojave National Preserve. This and other maps are available for purchase at all information centers (see page 2 for locations and other info.).



Developed Trails

1) Lake Tuendae Nature Trail

Trailhead: Zzyzx parking area, 5 miles south of I-15 on Zzyzx Road.

Enjoy an easy, self-guided, ¼-mile stroll around Lake Tuendae. Wayside exhibits along the trail reveal the rich cultural and natural history of this oasis on the preserve's western boundary.

2) Teutonia Peak Trail

Trailhead: 12 miles south of I-15, or 5 miles north of Cima, Calif. on Cima Road.

Explore the world's densest Joshua tree forest en route to a rocky peak with expansive views of Cima Dome and beyond. 3 miles round-trip.

3) Hole-in-the-Wall Nature Trail

Trailhead: Hole-in-the-Wall Information Center and Campground, 20 miles north of I-40 on Essex and Black Canyon roads.

Learn to identify desert plants on this easy, ½-mile round-trip hike. Trailheads at Hole-in-the-Wall Information Center and Campground.

4) Rings Loop Trail

Trailhead: Hole-in-the-Wall Information Center parking area, 20 miles north of I-40 on Essex and Black Canyon roads.

Discover how Hole-in-the-Wall got its name as you ascend narrow Banshee Canyon with the help of metal rings mounted in the rock. The 1 mile round-trip hike connects to the Mid Hills to Hole-in-the-Wall Trail and Barber Peak Loop Trail (see below).

5) Mid Hills to Hole-in-the-Wall Trail

Trailheads: Across the road from the entrance to Mid Hills Campground, and about 2 miles west of Black Canyon Road on the south end of Wild Horse Canyon Road.

Hike 8 miles, one-way, through a maze of washes decorated with barrel and cholla cacti, then through the Hackberry Fire burned area. Total elevation gain from south to north is 1,200 feet. Watch carefully for trail route markers.

6) Barber Peak Loop Trail

Trailhead: Hole-in-the-Wall Picnic Area, beyond Hole-in-the-Wall Information Center. The preserve's newest trail, this 6-mile loop encircles Barber Peak just west of Hole-in-the-Wall Campground, passes the Opalite Cliffs, and returns to Hole-in-the-Wall via Banshee Canyon.

7) Kelso Dunes

Start: 3 miles west of Kelbaker Road on the well-graded, but unpaved Kelso Dunes Road. Hikers at sunrise and sunset are treated to both cooler temperatures and the rose-colored glow of the dunes. The roughly 3-mile round-trip hike might take several hours as you slog through the sand, then slide down the slopes.

8) Rock Spring Loop Trail

The 1 mile loop trail starts at the Rock House and leads to a well-known watering hole and site of an 1860s military outpost. Trail starts at Rock House, 5 miles east of Black Canyon Road on Cedar Canyon Road.

Recommended Routes

Warning: the routes described below are not established trails; trailheads might be unidentifiable or nonexistent. Check a detailed map or guidebook—available at all information centers—and consult a park ranger for route information.

9) Quail Basin

Start: 12.5 miles north of I-40 on Kelbaker Road, then 1 mile east on an unmarked dirt road. Park at junction with closed dirt road heading south. **High clearance and four-wheel drive recommended.**

Follow the route to the south to a road that loops around a small valley. After walking the loop, return via the same route. The 6.5-mile round-trip route leads past jumbled rocks into a small valley of Mojave yucca and juniper surrounded by granite outcroppings.

10) Keystone Canyon

Start: 18 miles south of Nipton Road on Ivanpah Road, then 2.5 miles west on an unmarked dirt road. Bear left at the first fork, right at the second, then continue to a parking area.

Four-wheel drive recommended.

Hike the deteriorating road into Keystone Canyon, ascending the New York Mountains. Continue cross-country to the top of the ridge for spectacular views. Hike is 3 miles one way.

11) Caruthers Canyon

Start: Primitive campsites in Caruthers Canyon, 5.5 miles west of Ivanpah Road on New York Mountains Road, then 2.7 miles north on unsigned road. **Four-wheel drive recommended.**

Hike on an abandoned road through a rocky basin. Mine shafts and abandoned structures are on private property. Do not enter or climb on them as they are unstable and dangerous.

12) Castle Peaks Corridor

Start: 4.9 miles east of Ivanpah Road on signed Hart Mine Road; left at fork, then 0.9 miles, left at fork, then 3.4 miles, crossing an earthen berm; left at fork, then 1 mile more to where road ends. **Four-wheel drive recommended.** For excellent views of the Castle Peak spires, walk 4 miles one way up the closed road to the ridgetop and beyond into a small canyon.

13) Piute Creek

Start: 9.5 miles east of the junction of Lanfair Valley and Cedar Canyon roads on a dirt utility road, then 0.5 miles north. **High clearance and four-wheel drive recommended.** Hike 6.5 miles round-trip through colorful Piute Gorge and explore the ruins of Fort Piute, built and manned in the 1860s to protect mail and travelers on the Mojave Road. A perennial stream near the fort, rare in the Mojave, supports riparian plants and animals. Return to your vehicle via an unused trace of the Mojave Road.

Repairs are underway at Mitchell Caverns

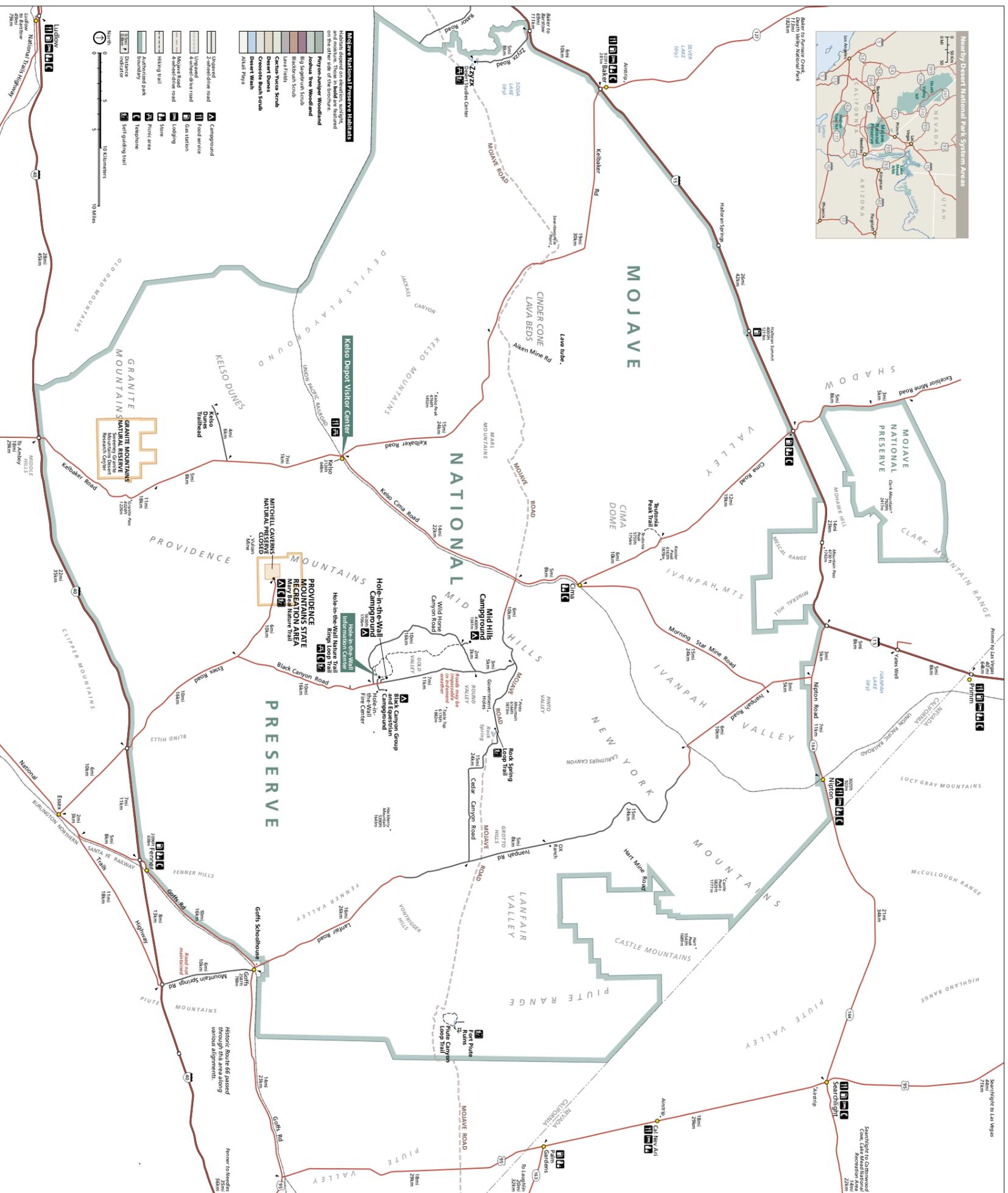
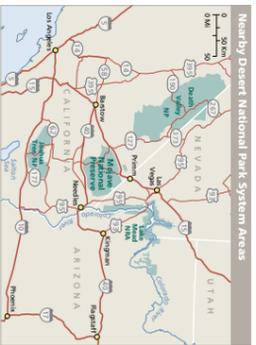
Providence Mountains State Recreation Area, home to Mitchell Caverns, is a California State Park located within the boundaries of Mojave National Preserve. State park officials shut down operations there in January 2011. Employee retirements coincided with the development of serious problems with the water system, and state officials decided to close the park until the system could be repaired.

Meanwhile, shortfalls in the California state budget led lawmakers in Sacramento to ask that state agencies identify possible budget cuts. In May 2011, California State Parks released a closure list, and Providence Mountains was among the 70 parks included. While other parks targeted for the closure were able to remain open with support from non-profit organizations, California State Parks officials decided not to invest in repairs to Providence Mountains State Recreation Area's infrastructure during a time of shrinking budgets, so the park remained closed.

Mitchell Caverns was initially developed as a privately operated tourist attraction by Jack and Ida Mitchell in the early 1930s. Jack Mitchell died in 1954, and his family turned the property over to the state. Providence Mountains State Recreation Area was added to the California State Park system in 1956.

Over the years, California State Parks has made many improvements to the caverns, including the development of a safe pathway through the caverns, a tunnel connecting the two principal caves, and installation of a lighting system. However, the remote location of the caverns and the lack of a connection to the electrical grid have contributed to the difficulties in the operation and maintenance of the caverns.

The state budget has stabilized over the past year, and work has begun to repair and renovate housing, the visitor center, and electrical and water systems. With new investment in this unique and remote holding of the California State Park system, officials hope to reopen Mitchell Caverns for tours in 2014.



Telephone Directory

Emergency 911
Federal Interagency Communications Center 909-383-5651
San Bernardino County Sheriff - Baker 760-733-4448
San Bernardino County Sheriff - Needles 760-326-9200

Mojave National Preserve

Barstow Headquarters Office 760-252-6100
Kelso Depot Visitor Center 760-252-6108
The Beanery @ Kelso (lunch room) 760-252-6165
Hole-in-the-Wall Fire Center 760-928-2573
Hole-in-the-Wall Information Center 760-252-6104 or 760-928-2572

Nearby Parklands

Anza Borrego Desert State Park 760-767-4205
Bureau of Land Mgmt. - Barstow Field Office 760-252-6000
Bureau of Land Mgmt. - Needles Field Office 760-326-7000
Calico Ghost Town 760-254-2122
Death Valley National Park 760-786-2331
Joshua Tree National Park 760-367-5500
Lake Mead National Recreation Area 702-293-8990
Providence Mountains State Recreation Area 760-928-2586

Website Directory

National Park Service
Mojave National Preserve www.nps.gov/moja
Death Valley National Park www.nps.gov/deva
Joshua Tree National Park www.nps.gov/jotr
Lake Mead National Recreation Area www.nps.gov/lame

Providence Mountains State Recreation Area http://www.parks.ca.gov/?page_id=615
Western National Parks Association (book-store) www.wnpa.org
CSU Desert Studies Center (Zzyzx) <http://biology.fullerton.edu/dsc/>
Bureau of Land Management [www.blm.gov](http://blm.gov)
Sweeney Granite Mtns. Desert Research Ctr. <http://nrs.ucop.edu/Sweeney-Granite.htm>
DesertUSA wildflower reports www.desertusa.com/wildfl/wildupdates
Desert Tortoise data and information www.deserttortoise.gov
Desert Discovery Center www.discoverytrails.org/welcome1.html
Wilderness information www.wilderness.net
California Desert www.californiadesert.gov
Leave No Trace www.lnt.org
US Federal government jobs www.usajobs.opm.gov



WESTERN NATIONAL PARKS ASSOCIATION