Desert National Wildlife Refuge
HCR 38 Box 700
Las Vegas, NV 89124
702/879 6110

http://www.fws.gov/refuge/desert/

U.S. Fish & Wildlife Service
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Desert
National Wildlife Refuge

© Gary Kramer

The refuge is a remarkable land encompassing great diversity of terrain and climate wrapped in wild beauty and solitude.

USFWS Photo

Introduction

Welcome to the Desert National Wildlife Refuge

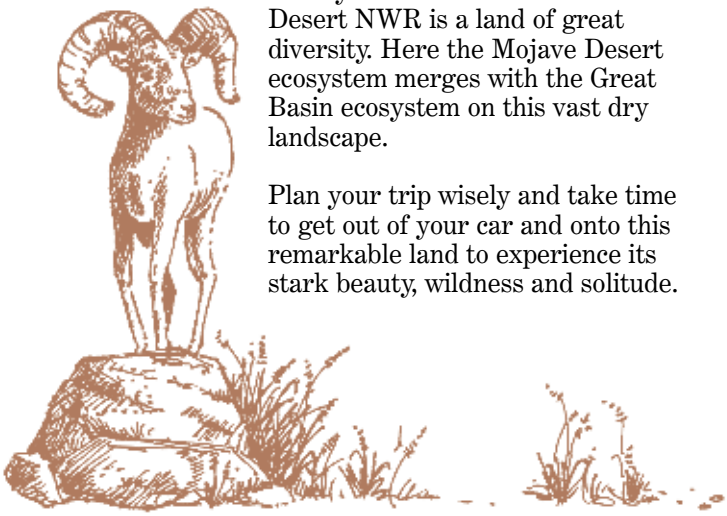
The Desert National Wildlife Refuge includes more than 1.5 million acres (over 2,300 square miles) in southern Nevada. The vast refuge is large enough to cover the state of Rhode Island twice, and still have room left for over a quarter of a million football fields. This is the largest National Wildlife Refuge (NWR) in the lower 48 states.

The Desert NWR forms one of the largest intact blocks of desert bighorn sheep habitat remaining in the Southwest. The population fluctuates with ecological conditions.

All roads are primitive, and ordinary passenger vehicles are not recommended. The wildlife and wildlands of the area are best appreciated by traveling on foot or horseback into the backcountry.

The Desert NWR contains six major mountain ranges rising to an elevation of almost 10,000 feet. Annual rainfall ranges from less than 4 inches at low elevations to more than 15 inches on the highest peaks. The wide range of elevation and rainfall has created amazingly diverse habitat suited to a wide variety of flora and fauna. The Desert NWR is a land of great diversity. Here the Mojave Desert ecosystem merges with the Great Basin ecosystem on this vast dry landscape.

Plan your trip wisely and take time to get out of your car and onto this remarkable land to experience its stark beauty, wildness and solitude.



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Early History Of The Refuge

Prehistoric People

The area now known as the Desert NWR has been utilized by ancient people for thousands of years: first by Archaic people and then during the last several hundred years by the Southern Paiutes and others. These Native Americans traveled in small mobile bands while following the seasonal ripening of plants and the movements of animals. The evidence of these ancient people is seen in numerous cultural resource sites such as agave roasting pits, rock shelters, camps, rock art and ancient artifacts.

Spears were commonly used for hunting larger game such as mule deer and bighorn sheep. The spear thrower or atlatl was a revolutionary advance in weapon design that allowed the spear to be thrown with far greater power, range and accuracy.

Agave Roasting Pit

© Sharon Schafer

Roasting pits are circular mounds of firecracked and whitened limestone that were used by ancient people for cooking meats and vegetables. Native foods such as agave were placed in a bed of hot coals mixed with limestone cobbles and covered with vegetation and earth to slow cook for many hours. Limestone was discarded after each use and eventually formed a low mounded hill with a central depression.

Petroglyphs

© USFWS Photo

Petroglyphs are images chipped into stone, most often through a thin, dark layer on the rock known as desert varnish, exposing the light rock underneath to create the images. Pictographs or rock paintings are less common, usually found on the light-colored surfaces in protected places such as rock shelters and beneath overhangs. The true meanings of these images remains unknown but are thought to document various aspects of social and religious life.

Later History Of The Refuge

1700s

Paiute Indians were living near the watering places in the late 1700s when Europeans first visited the region. These were Spanish pioneers searching for a route between settlements in present day New Mexico and California which later became known as the Spanish Trail.

1850s

In the mid 1850s Mormon settlers moved into southern Nevada. Some settled in the area that is now near downtown Las Vegas. By the 1880s settlements in the Moapa Valley (east towards the Colorado River) were well established.

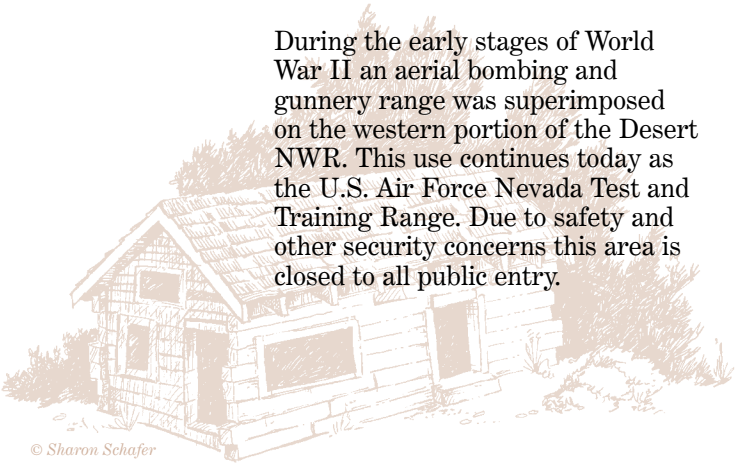
1900s

Around the turn of the century, two wagon trails now known as the Alamo Road and the Mormon Well Road were developed as travel routes by pioneers in this region. These trails served early efforts at mining and ranching in this part of the state.

1936– DNWR Established

The Desert National Wildlife Refuge was established by executive order in 1936 for the protection, enhancement, and maintenance of desert bighorn sheep. Corn Creek Spring, purchased in 1939 by the Federal Government, was an old ranch site and stage coach stop used by prospectors and cattlemen, as well as poachers and bootleggers.

During the early stages of World War II an aerial bombing and gunnery range was superimposed on the western portion of the Desert NWR. This use continues today as the U.S. Air Force Nevada Test and Training Range. Due to safety and other security concerns this area is closed to all public entry.



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Bighorn Sheep

Bighorn Habitat

© Gary Kramer

The agile desert bighorn is at home in steep rocky mountains and foothills where it finds food, water, escape terrain and, most importantly, space. Bighorn can be extremely intolerant of human interference and the 1.5 million acres of the Desert NWR provides much needed refuge. Having rebounded from a record low of 300 in the late 1930s, the desert bighorn population now numbers approximately 750. This is well below the peak numbers recorded during the late 70s to the middle 80s, which coincided with a period of high precipitation.

© Sharon Schafer

Bighorn ewes average 34 inches at the shoulder and rams average 36 inches, with weights of 75-115 pounds for an adult female to 125-180 pounds for a male.

Desert bighorn are highly socialized animals. Breeding season, or rut, peaks in late summer with lambing season occurring in late winter or early spring. During the non-breeding season, older rams tend to segregate themselves from the remainder of the population. Group size varies with season and averages less than four sheep.

Bighorn are remarkably adapted to this harsh desert environment. A human will die from dehydration after losing only 10% of their body weight. The bighorn are able to go as long as 8 days without a drink, losing up to 31% of their body weight, and then will drink nearly 5 gallons at one time to replenish their lost water.

Horns

© Gary Kramer

The majestic curled horns of the mature desert bighorn ram weigh approximately 30 pounds and may reach 30-40 inches on the outside curl. The ewe has slightly curved horns only 10-13 inches long. These horns are permanent and continue to grow throughout the animal's life.

Bighorn Management

The males clash with their horns to establish social rank. Two rams will charge one another at combined speeds of nearly 45 miles per hour with the resulting crack of impact heard over a mile away. The rams with the largest horns generally prove themselves most dominant.

Water

USFWS Photo

Water is the most limiting factor for bighorn populations and is in short supply on much of the refuge. For this reason, over 30 springs have been improved and 30 "guzzlers" developed. Guzzlers, or rain catchments, collect precipitation and deliver it to storage tanks that fill a small drinking trough. The improvement and careful placement of water sources dramatically helps bighorn populations. More widespread distribution of water lowers competition for water and forage and reduces vulnerability to predators and disease.

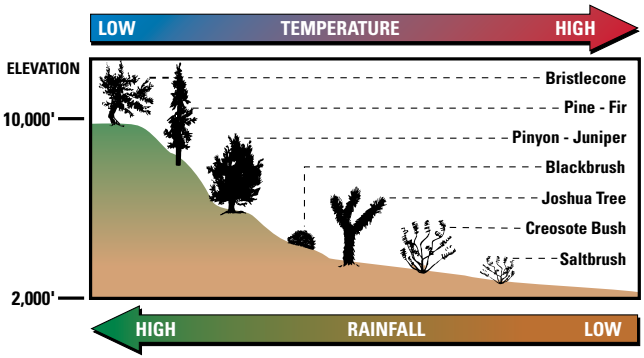
Trapping and Radio Telemetry

In order to better manage the bighorn sheep population, animals are occasionally captured and relocated. At times, bighorn sheep are trapped with nets, then transported to release sites. The sheep are relocated to re-establish herds in former historic ranges, ensuring the survival of the desert bighorn.

USFWS Photo

Often the trapped sheep are marked with ear tags and may be fitted with a radio collar that enables tracking of individuals to determine seasonal movements.

Life Zones



Life Zones

© Bob Goodman

The wide range of elevation and rainfall on the Desert NWR has created a great diversity of flora and fauna. Vegetation and associated wildlife depends on soil type, seasonal moisture, temperature, and elevation. These life zones change markedly with elevation. Seven distinct plant communities are recognized.

Over 500 species of plants have been identified in plant communities or zones varying from saltbrush on the valley floors to ponderosa pine-white fir and bristlecone pines at the highest elevations.

The boundaries between these zones are seldom sharp. The lower communities extend upward on warm south facing slopes and the higher communities descend downslope on cooler or moister sites.

Plant Communities

© John Hiatt

Bristlecone Pine
Near 10,000', where the growing seasons are the shortest, the only trees surviving the extreme conditions are the bristlecone pines. These very long lived trees are found in the Sheep Mountain Range.

© Sharon Schafer

Pine-Fir Forest
At elevations of approximately 7,500' to 9,000', where snow and rain linger, ponderosa pine and white fir are dominant. They form well developed, nearly closed canopy forests.

Life Zones

© Sharon Schafer

Pinyon-Juniper Woodland
This open canopy forest occurs from approximately 6000' to 7500' where precipitation may be 10"–15" per year, much of which is received as snow. Utah juniper and single-leaf pinyon pine dominate this community that forms a zone between brush and true forest.

© Sharon Schafer

Blackbrush Community
This community dominated by blackbrush is found at 4,200' to 6000' on steep rolling hills. Soils are typically shallow. Different species of yucca, including Joshua tree, Mormon tea and cholla cactus are common associates.

© Sharon Schafer

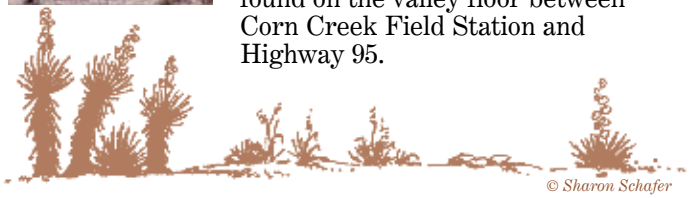
Joshua Tree Woodland
The apparently dominant species in this habitat type is the Joshua tree, although the bulk of plant material consists of a variety of widely spaced shrubs known as the understory. Joshua trees are commonly found between 3000' to 5000' elevations.

© Sharon Schafer

Creosote Bush Community
This open scrubland dominated by the creosote bush consists of widely spaced shrubs and various cacti. Other common species include yucca, Mormon tea, bursage and range ratney. This community is found in elevations of 2,400' to 3,600' and receives less than 5" of rain.

© Hermi Hiatt

Saltbrush Community
In some basins on the valley floors, particularly those with low nocturnal temperatures and very high soil salinity, the saltbrush community predominates. A good example of this community can be found on the valley floor between Corn Creek Field Station and Highway 95.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Flowers

Desert Annual Wildflowers

The deserts of the Mojave are known for their displays of spring and summer wildflowers that are spectacular in years of abundant winter rainfall. These desert annuals avoid the heat and drought by surviving as seeds in the soil, often for decades, until favorable conditions occur. When environmental conditions are right they quickly sprout, flower and drop seed, compressing their lives into a very brief time period.

USFWS Photo

© Sharon Schafer

Globemallow

This common member of the mallow family has showy, scarlet to peach flowers. The foliage is a dusty gray-green covered with dense, short, shiny hairs. Ancient people used the globemallow as a treatment for eye infection as well as the source of a tea used as a hair conditioner and a treatment for sore throats.

© Sharon Schafer

Palmer's Penstemon

Palmer's penstemon is a large multi-stemmed perennial with fragrant showy pale-pink or lavender flowers. The leaves of this plant were used by Native Americans to numb the pain of a sore tooth.

© Sharon Schafer

Indian Paintbrush

Indian paintbrush derives its name from the top leaves or bracts that look as though they have been dipped in vivid, scarlet paint. This partially parasitic species is often found growing in or near shrubs. Their roots tap into these host plants enabling the paintbrush to obtain much of its food and moisture from them.

USFWS Photo

Mojave Yucca

All yucca species have evolved a special relationship with the yucca moth. The female moth enters the flower gathering pollen into a tiny ball and then flies to another flower and pollinates it. She then lays her eggs in the ovary of the flower and her young develop there with an assured food source of developing fruit. One cannot exist without the other.

Birds

Over 320 Species of Birds

The wide variety of vegetation communities in the Desert NWR provides an ideal habitat for many birds. Over 320 species have been identified within its boundaries.

© Bob Goodman

Golden Eagle

Despite the hot, dry environment of the lower desert many species have adapted well to it. Species commonly seen include the black-throated sparrow, Le Conte's thrasher, sage sparrow, loggerhead shrike, cactus wren and the greater roadrunner.

The roadrunner is a ground dwelling bird built for speed with a sleek body and long legs. It is able to fly short distances, but prefers to run, reaching speeds of 30 miles per hour.

© Gary Kramer

Roadrunner

In the higher pinyon-juniper woodlands, species such as bushtit, spotted towhee, broad-tailed hummingbird and pinyon jay are common. The pinyon jay is a highly gregarious bird that is well known for collecting pinyon pine seeds and transporting them to communal caching areas where they store them in the ground for later use.

© Bob Goodman

Pygmy Owl

The high elevation pine forests are home to the olive-sided flycatcher, Clark's nutcracker, white-breasted nuthatch and the red-naped sapsucker. This woodpecker drills parallel rows of small holes in live trees, then returns later to feed on the sap and trapped insects.

Mammals

The Desert NWR, with its great diversity of habitat types, is home to 52 species of mammals. Species found in the higher pine forests include cliff chipmunk, spotted skunk, long-legged myotis bat and occasionally the porcupine.

© Bob Goodman

Mountain Lion

In the brushy areas of the middle elevations, various species of bats along with cottontail rabbits, ground squirrels, and coyotes are commonly found. The less commonly seen mountain lion grows from 5-9' long including the tail, stands 2.5' at the shoulder, and weighs as much as 125–200 pounds. Their favorite prey is the mule deer. Mountain lions often stalk and ambush their prey by leaping on their backs and breaking their necks.

© Bob Goodman

Kit Fox

The low desert communities provide habitat for many mammals well adapted to the hot, dry climate, such as the kit fox. This small nocturnal fox, about the size of a domestic cat, has exceptionally large ears. The feet are heavily furred which gives them good support on the deep sandy soils of their desert habitat. Their range closely coincides with their favorite prey, the kangaroo rat. The nocturnal kangaroo rat spends the day in its burrow, plugging the entrance with soil to keep the interior cool. This desert dweller never needs to drink water, getting all the water it needs from seeds. Also found in this harsh community is the California myotis, whitetail antelope squirrel, and the blacktail jackrabbit.

USFWS Photo

Kangaroo Rat

Some species, such as the coyote, bobcat, gray fox, and mule deer, are found in many life zones. The highly adaptable coyote is similar in size and appearance to a medium-sized, slender dog. It scavenges carrion and may eat berries and plant material, as well as hunting small mammals, reptiles, and occasionally birds.

© Bob Goodman

Coyote

Reptiles and Amphibians

Reptiles

Over 35 reptiles, including snakes, lizards, and tortoises, as well as 4 amphibians have been identified in the Desert NWR and are present in all but the coldest life zones.

© Bob Goodman

Rattlesnake

Reptiles found include the chuckwalla, horned lizard (also known as horned toad), Mojave rattlesnake, western king snake, banded gecko and the federally protected* desert tortoise. The desert tortoise feeds on forbs, grasses and flowers that provide much of their necessary moisture. Tortoises spend most of their lives underground in burrows that may be up to 30' long. Tortoises can live 75–100 years and grow to 15" in length.

© Bob Goodman

Horned Lizard

The chuckwalla is a large vegetarian lizard found in areas of rocky outcroppings. It feeds on buds, flowers, and fruits of a variety of plants. When alarmed the chuckwalla will retreat to safety in a rock crevice and distend its body by gulping air, thus wedging itself firmly in place and making it difficult for a predator to capture it. Native Americans occasionally used them for food.

© Gary Kramer

Chuckwalla

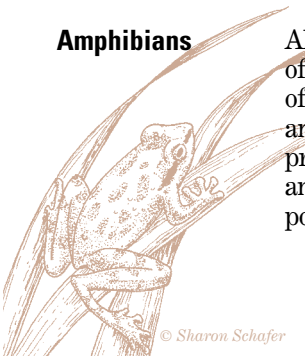
Colorful collared lizards are found on rocky slopes and rock strewn alluvial fans (bajadas). These lizards have powerful jaws and often hunt grasshoppers, cicadas, moths, wasps, and small lizards by sight, seizing their prey with a quick rush. The collared lizard often runs on its back legs when moving at high speeds.

© Bob Goodman

Collared Lizard

Amphibians

Although temperatures soar in areas of direct sun, in the immediate vicinity of shaded, moist areas around springs and seeps, moderate temperatures prevail. Here, several species of amphibians can be found around the ponds at Corn Creek.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* The desert tortoise is listed as Threatened under the Endangered Species Act.

Rules and Regulations

Vehicular Travel

All motorized vehicles must be licensed and registered for highway use. They are permitted only on designated named roads as shown on the map. Vehicular travel on service roads is prohibited.

NOTE: This is a partial list of common rules and regulations. Previously dated brochures may contain changes and/or new regulations which may be in effect. Please contact the refuge manager with specific questions.

Operation of all-terrain vehicles (ATVs), including but not limited to all-terrain cycles and quads, is not permitted within the refuge.

Roads are rough, unimproved and may be impassable for passenger cars. They are occasionally closed for maintenance or rehabilitation. Road closed signs are posted for your safety.

Make sure your vehicle is in good working condition, has a full tank of fuel and adequate emergency supplies. Don't forget to check your spare tire! No fuel or service is available within the Desert NWR. Please call ahead for current road information.

Camping

Camping is permitted year-round but is limited to 14 consecutive days during any twenty-eight (28) day period. Following the 14 day period, person(s) may not relocate within ten (10) miles of the site that was just previously occupied until completion of the 28 day period. All camps except backpack camps must be within 50' of designated roads. Camping within 1/4 mile of water developments or springs is prohibited.

Fires

Campfires are permitted but there is no wood available; you must bring your own. Be careful with fire, a firepan is recommended. Please call ahead for seasonal fire restrictions.

Hiking and Horseback Riding Areas

The entire Desert NWR, (excluding the portion overlain by Nevada Test and Training Range), is open to hiking and horseback riding. Water is scarce and critical to wildlife. Horseback riders must carry feed and water for their stock. In order to protect native plants, it is highly recommended that only certified weed-free feed be brought onto the refuge.

Rules and Regulations

Hunting

No hunting allowed within the refuge boundary except for desert bighorn sheep hunting by permit only.

Firearms

Carrying, possessing or discharging firearms or other weapons including crossbows, bow and arrows or airguns is prohibited. This includes carrying, possessing or discharging fireworks and explosives.

Artifacts

Damaging rock art or disturbing archeological sites is a violation of federal law. Removing objects of antiquity, rocks, minerals or fossils is not allowed.

Pets

All pets on the Desert NWR must be leashed at all times.

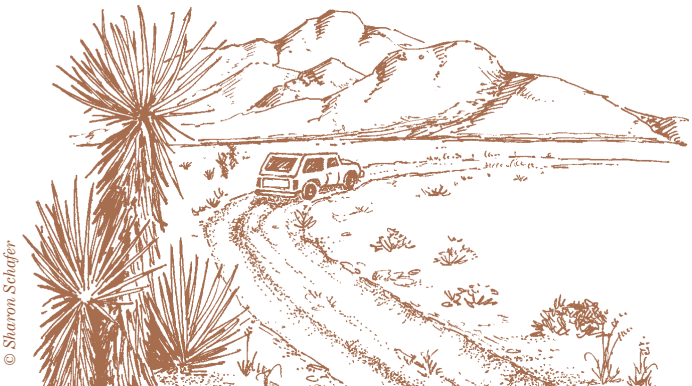
Animal and Plant Life

Attempting to collect, possess, disturb, injure, remove or transport any animal, plant, or parts thereof, is a violation of federal law.

Trash

There are no trash cans on the refuge. Please carry out everything you bring in. Littering is strictly prohibited!

The western half of the Desert NWR is used by the U.S. Air Force's Nevada Test and Training Range as a bombing, gunnery and aerial warfare training facility. There may be unexploded, live ordinance in this area. All public access to this area is prohibited by federal law.



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Safety Tips for Desert

Be Prepared

Travel through the back country requires preparation to ensure a safe, enjoyable trip. Plan your trip carefully!

When entering the refuge from Corn Creek, please register at the visitor contact station podium.

Cellular telephone and radio coverage are limited in this area. Don't travel or hike alone! Let someone know your travel plans, schedule, and the general area you will be in. Stick to your plan and don't forget to report your return.

Carry Water

No water is available on the Desert NWR. Always bring plenty of water—don't ration it! A person requires at least one gallon of water per day in the summer heat.

Be Ready for Heat

Protect yourself from the sun! Wear a hat, light colored clothing, and sunscreen. Prevent exhaustion by pacing yourself and avoiding extreme midday heat.

Weather

Elevation ranges from 2,400' to 10,000'. Climate varies widely and in summer temperatures may reach 117°F/47°C. Days may be hot and the nights may be cold.

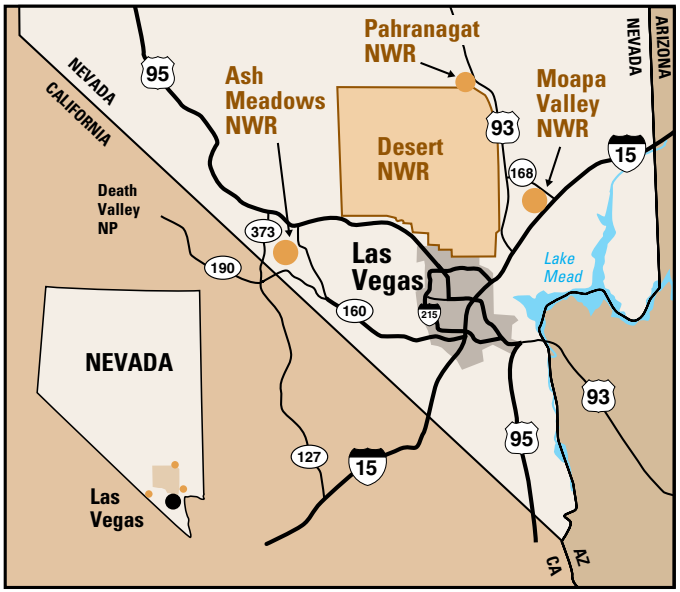
Snow occurs almost every winter in the Sheep Range, with occasional sub-zero temperatures, and may result in road closures. It is smart to always dress in layers and obtain a current weather forecast.

Flash floods can be caused, in a matter of minutes, by quick, severe thunderstorms. Never camp or park your vehicle in a dry wash or stream bed.

No fuel or service is available within the Desert NWR.

© Sharon Schafer

Visit Nearby Refuges



Ash Meadows National Wildlife Refuge

Admire the beauty of over 23,000 acres of spring-fed wetlands and alkaline desert uplands. Walk the Crystal Springs boardwalk to learn about some of the 25 species found here and nowhere else in the world—12 of which are threatened or endangered. Watch wildlife at Point of Rocks or visit the historic Longstreet cabin.
775/372 5435

Moapa Valley National Wildlife Refuge

Warm water springs from the hillsides giving life to the Moapa Valley. Refuge staff and their partners work to restore this fragile habitat for the endangered Moapa dace. The refuge is currently closed to the public until all safety hazards are removed.
702/879 6110

Pahranagat National Wildlife Refuge

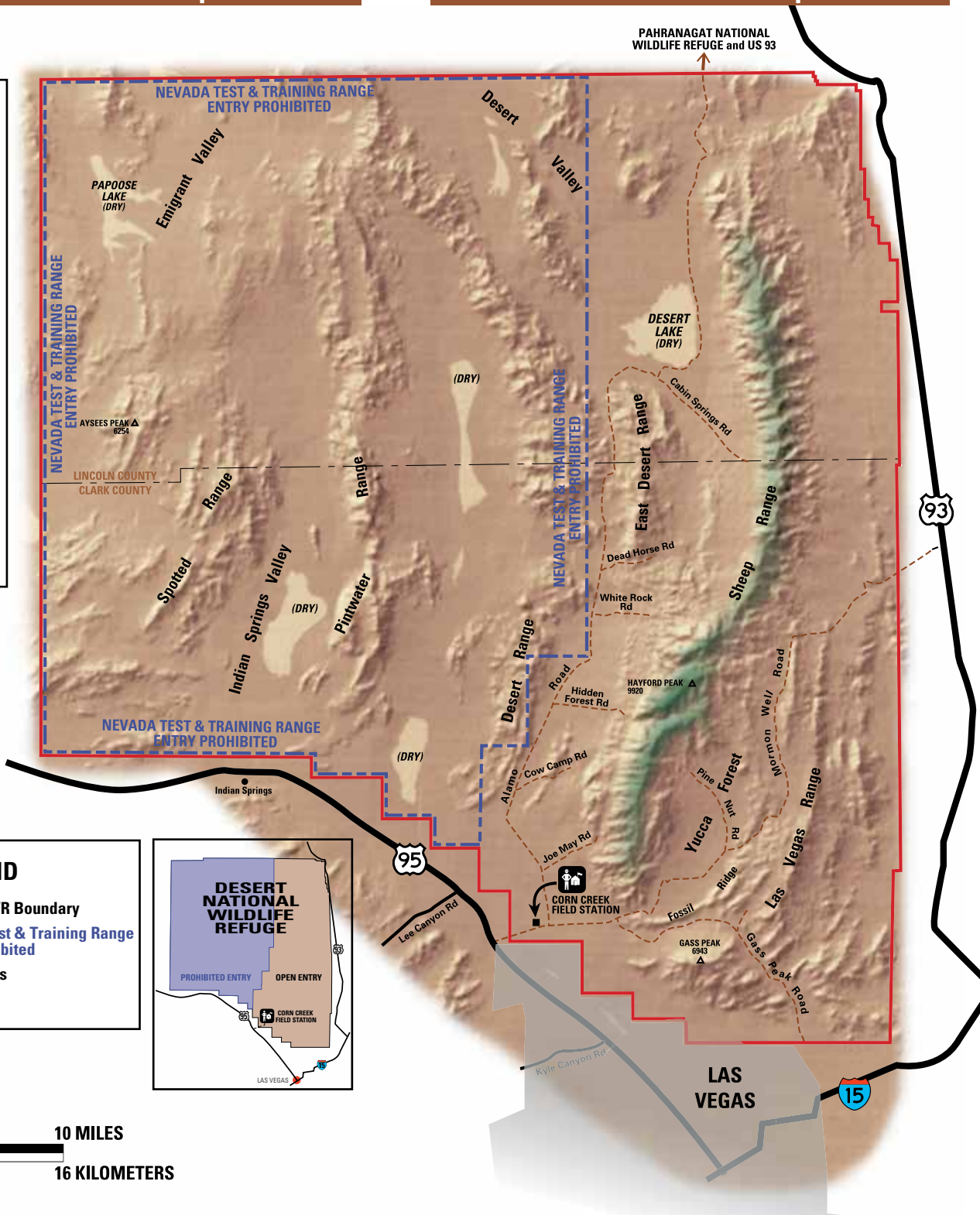
This "valley of shining waters" bordering the Mojave and Great Basin deserts offers a resting spot for migratory birds and waterfowl. Enjoy this desert oasis while camping, fishing, hunting, or observing wildlife.
775/725 3417

Desert NWR Map

Desert NWR Map

Where Do I Start?

The major access point to the Desert NWR is through the Corn Creek Field Station, which can be reached by travelling north on U.S. Highway 95 approximately 25 miles from downtown Las Vegas. A brown sign on the east side of the highway marks the 4-mile gravel road into Corn Creek.



MAP LEGEND

- Desert NWR Boundary
- Nevada Test & Training Range Entry Prohibited
- Main Roads
- Dirt Roads

N

0 5 10 MILES

0 8 16 KILOMETERS