

**NATIONAL
CONSERVATION
LANDS**

Utah

2023: Annual Manager's Report

Beaver Dam Wash

National Conservation Area



Map

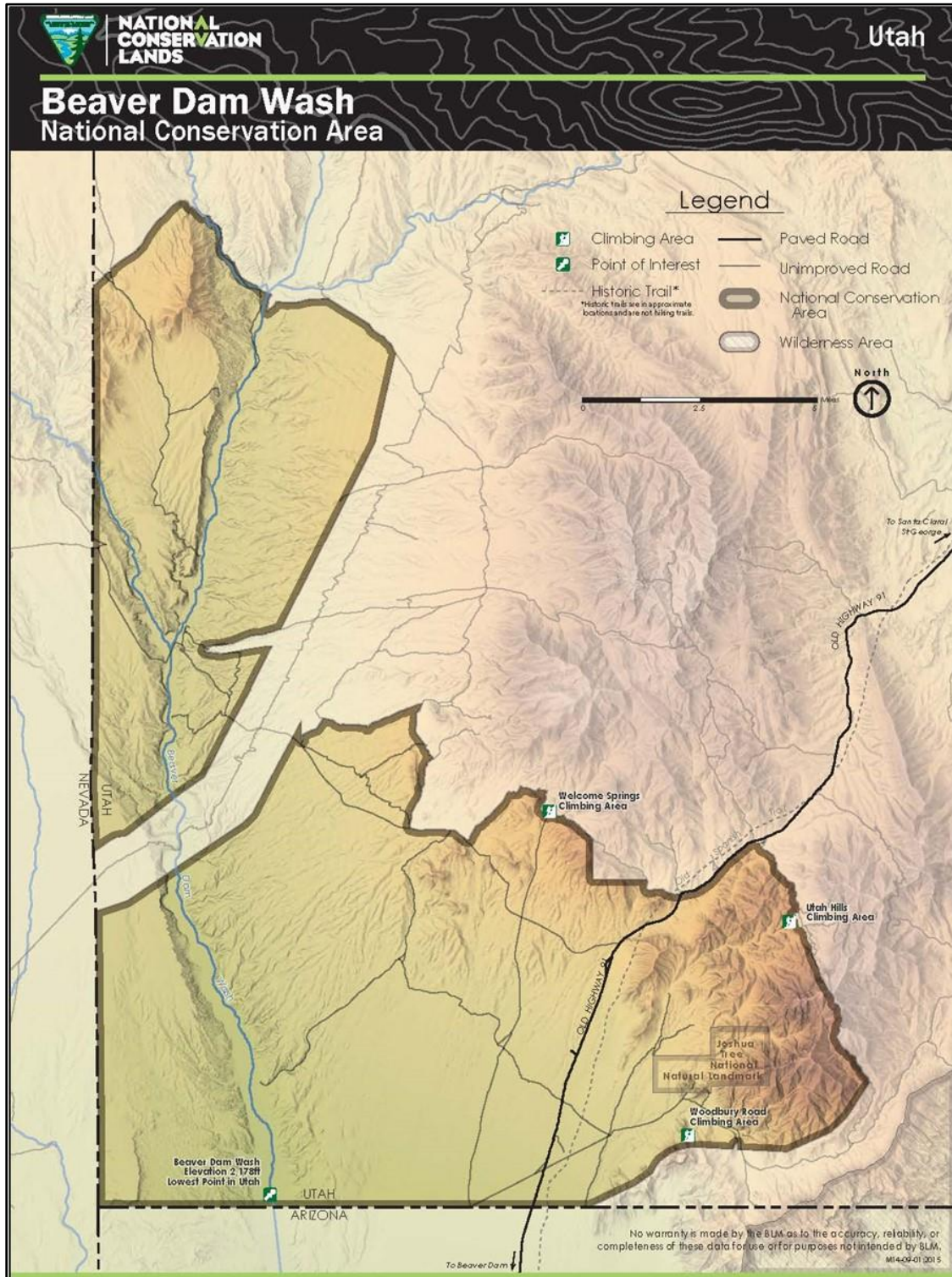


Figure 1: Map of Beaver Dam Wash NCA

Accomplishments

Working with the Bureau of Land Management’s (BLM) National Program Lead for the Old Spanish National Historic Trail (OSNHT), we were able to complete a Sign Plan that was accepted by the National Park Service for this historic trail through western Washington County, Utah. This plan allowed us to install OSNHT official route signs along Old U.S. Highway 91 in Beaver Dam Wash National Conservation Area (NCA). U.S. Highway 91 was constructed in the 1920s, the first paved interstate highway through southwestern Utah, and generally followed the route of the Main Branch of the OSNHT through this region. The official route signs complement other OSNHT educational displays in place along Old Highway 91 in the NCA. These include three waysides with interpretive panels and 20 life-sized metal silhouettes of pack mules loaded with trade goods, led by New Mexican traders, that recreate pack strings on the OSNHT between 1828 and 1848 (see photo below).

This year, NCA staff and Conserve Southwest Utah coordinated a Joshua Tree Restoration Project in a fire-damaged area of the NCA. Twenty-two community volunteers planted and caged 60 mature, nursery grown native species, including 45 Joshua trees, and provided supplemental waterings to these plants throughout the summer months. The volunteers donated over 300 hours to this project in an effort to restore this iconic yucca species where it has been lost to fires in the NCA and to help prevent it from becoming a threatened or endangered species.



Figure 2: Old Spanish Trail interpretation (left, center); transplanted yucca plant (right).

Challenges

Challenges for NCA management include steadily increasing visitor numbers and the BLM's limited capacity to conduct regular staff or law enforcement patrols needed to make visitor contacts and educate visitors about recreation opportunities, safety, and use restrictions. During fiscal year (FY) 2023, one of the two NCA Park Ranger positions remained vacant, and the St. George Field Office was staffed by a single BLM Ranger to patrol 629,000 acres of public land. New unauthorized OHV trails were pioneered in the NCA where Congress restricted public motorized vehicle travel to specific designated routes within those areas (see legislative map supporting section 1975 of Title I, Subtitle O of the Omnibus Public Land Management Act of 2009, Public Law 111-11, that designated the NCA). A small number of new unauthorized dispersed campsites were also created, particularly near popular climbing sites in the NCA. These user-created campsites had no metal fire-rings, potentially increasing the risk of new wildfire starts in critical habitat for the threatened Mojave desert tortoise and other at-risk species.

The need to protect and restore critical habitats for at-risk wildlife species continues to be a management challenge under predicted climate change scenarios. The NCA is within the Mojave Desert ecoregion where wildfires were formerly a rare occurrence. Some desert shrubs, like creosote bush, are naturally fire-resistant and widely spaced, impeding fire spread. Exotic invasive annual brome grasses today fill in the gaps between individual plants, creating a highly flammable fine fuel source that is increasing the size, intensity, and frequency of wildfires. Critical habitat loss is complicating recovery efforts for the threatened Mojave desert tortoise and other native species. The BLM continues to conduct research, working with multiple federal and non-federal partners, to evaluate the most successful and cost-effective ways to rehabilitate fire-damaged desert vegetation communities in the NCA.



Figure 3: Wildfire in the Mojave Desert.

Visitors

In 2023, digital traffic/visitor counters at multiple locations in the NCA recorded 83,500 visits, an increase of 6,000 over the 77,500 visits reported in 2022. Since designation in 2009, the NCA has become an increasingly popular destination for rock climbing, camping, and UTV/4x4 riding on a network of unpaved designated roads. Welcome Springs, Bulldog Knolls, and Woodbury Crags provide world class climbing opportunities. More than 70 climbs, ranging in difficulty from 5.7 to 5.14, are easily accessible via short hikes from the Mojave Desert Joshua Tree Road Scenic Backway in the NCA.

During the spring and fall months, tent and RV campers regularly used the 38 designated dispersed campsites with metal fire rings that are located along maintained backcountry roads throughout the NCA. Visitors can easily find campsite locations by stopping at any of the 11 information kiosks in the NCA, as each has an orientation map that shows the campsites and points of interest.

Twenty-seven Special Recreation Permit holders operate in the NCA and offer commercial guiding services for rock climbing, nature photography workshops, and hunting for upland game birds, desert bighorn sheep, and mule deer. Roads within the NCA are part of the racecourse for a long-distance mountain biking event held annually each spring.



Figure 4: Recreation in Beaver Dam Wash NCA.

Partnerships

The following partners assisted NCA staff with resource conservation, monitoring, and restoration projects: National Park Service-Lake Mead National Recreation Area's Song Dog Native Plant Nursery, Utah Conservation Corps, American Conservation Experience, and Conserve Southwest Utah (staff and volunteers shown below in photo).

In partnership with NCA staff, biologists from the Utah Division of Wildlife Resources completed annual population and habitat monitoring for mule deer, Gambel's quail, mourning dove, bighorn sheep, desert sucker, and Virgin spinedace in the NCA.



Figure 5: Conserve Southwest Utah staff and volunteers in the field.

Science

Under the direction of the NCA Biologist, Conserve Southwest Utah (CSU) recruited and trained 58 volunteers to collect data on the occurrence and spatial distribution of the Mojave desert tortoise and a number of BLM Sensitive Species along 21-miles of unpaved roadways in the NCA that are open to motorized vehicle travel.

These volunteers also walked belt transects spaced at 10-meter intervals to identify, collect GPS coordinates, and photograph tortoise burrows, scat, and any live tortoise encountered within a 200-acre study area where no prior field studies had been conducted. They helped the NCA staff establish a camera trap study in that area, installing infra-red trail cameras at the entrances of active tortoise burrows and along ephemeral washes. The study will help document burrow and habitat use by the desert tortoise and BLM Sensitive Species, such as kit fox and Gila monster.

During the spring and summer of 2023, CSU volunteers donated 1,300 hours conducting field surveys, camera placement and servicing, and wildlife data downloading and organization. Their efforts documented 142 desert tortoise burrows, 30 kit fox burrows, and numerous tortoise scat. The camera traps recorded 111 tortoise detections (at 10 burrow sites), and the first BLM documentation of a speckled rattlesnake in Utah! This project supported the strategic goals of the BLM's Threatened and Endangered Species and Sensitive Species Programs by providing current and accurate information on the relative abundance of the tortoise and other species' populations in areas of the NCA. The survey data will also facilitate proactive conservation actions for these at-risk species, based on updated data on occurrences and habitat use.



Figure 6: Mojave desert tortoises(left), burrow entrance(center), and speckled rattlesnake(right).

Climate Impacts

Prolonged periods of drought, in concert with elevated annual temperatures, erratic precipitation patterns, and wildfires continue to impact and alter the native vegetation communities of the NCA. The photo below shows a dense cover of exotic invasive brome grass and the trunks of dead Joshua trees in a fire-damaged area of the NCA. These invasive annual grasses proliferate after fires, outcompeting native species, and are contributing to increases in wildfire frequency, extent, and intensity. Climate change impacts are threatening ecosystem integrity and resiliency in the NCA and across the Mojave Desert.



Climate Resiliency

On-going efforts to create more climate resilient landscapes include working with partners and academic researchers to plan large and small-scale habitat rehabilitation projects for the Mojave Desert eco-region that will be cost-effective and successful. One approach that is currently being implemented in the NCA is the hand planting of mature, nursery grown native species to create “fertile islands” in fire-damaged areas. Plant survivorship is measured during these projects to determine which native species can be successfully and cost-effectively used in fire-damaged vegetation communities.

Social and Environmental Justice

In 2023, American Conservation Experience (ACE) crews assisted NCA staff by walking belt transects spaced at 10-meter intervals to identify, photograph, and collect location data on tortoise burrows, scat, and any live tortoise encountered within a previously un-surveyed 580-acre area of critical desert tortoise habitat in the NCA (see photo below).

ACE Emerging Professional's in Conservation (EPIC) Resource Associates complete internships with the NCA Biologist, gaining field and office experiences in wildlife and threatened and endangered species population monitoring. Both ACE programs provide young professionals with 'on the ground/in the field' experiences that support their development as future conservation leaders and federal agency employees.

Exceptionally qualified and diverse candidates are recruited for ACE programs, helping to meet BLM's objectives of providing meaningful project and internship experiences for youth, and fostering a sense of public land stewardship in the next generation.



Figure 7: ACE interns in the field

Events

The Mojave Desert Joshua Tree Road Scenic Backcountry Byway and other unpaved roadways that cross the NCA were part of the racecourse for the annual (and grueling) 84 mile-long True Grit - Gravel Grinder mountain bike race, authorized by the BLM through a Special Recreation Permit and monitored by NCA staff.

On March 18, 2023, 127 racers started the race in St. George, Utah, and rode the long course sections through the NCA (see photo below). Of the race starters, 114 were able to cross the finish line back in St. George later the same day.



Figure 8: Mountain bike race in Beaver Dam Wash NCA.

Words from the staff

Dear Friends of the Beaver Dam Wash NCA:

The FY23 Annual Manager's Report highlights just a few of our accomplishments this year in the Beaver Dam Wash NCA. Our efforts were furthered by contributions from many dedicated volunteers, community partners, and members of the public who support the purposes of BLM's management of these public lands to "conserve, protect, and enhance" their natural and cultural resources.

Perhaps the most exciting highlight of this year were the photographs taken by the camera trap study managed by trained volunteers from Conserve Southwest Utah. To see photographs of the very rare speckled rattlesnake coiled up in a rock crevice or a kit fox with pups playing in front of its den clearly show the diversity of native Mojave Desert wildlife that this NCA supports. And the commitment and dedication of these volunteer "citizen scientists", who spent hours reviewing thousands of images downloaded from the trail cameras, is amazing and so much appreciated!

This was also a wonderful year of engagement for youth crews from two Public Land Corps organizations: the American Conservation Experience and the Utah Conservation Corps. The interest and excitement shown by these young people as they walked transects and collected data on tortoise burrows and, yes, tortoise scat, clearly shows that there will be a "next generation" of future conservation leaders.

We thank you all for your interest in and support of our efforts in the Beaver Dam Wash NCA.

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Red Cliffs NCA



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Beaver Dam Wash

National Conservation Area

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