

NATIONAL CONSERVATION LANDS

Nevada
2021: Annual Manager's Report

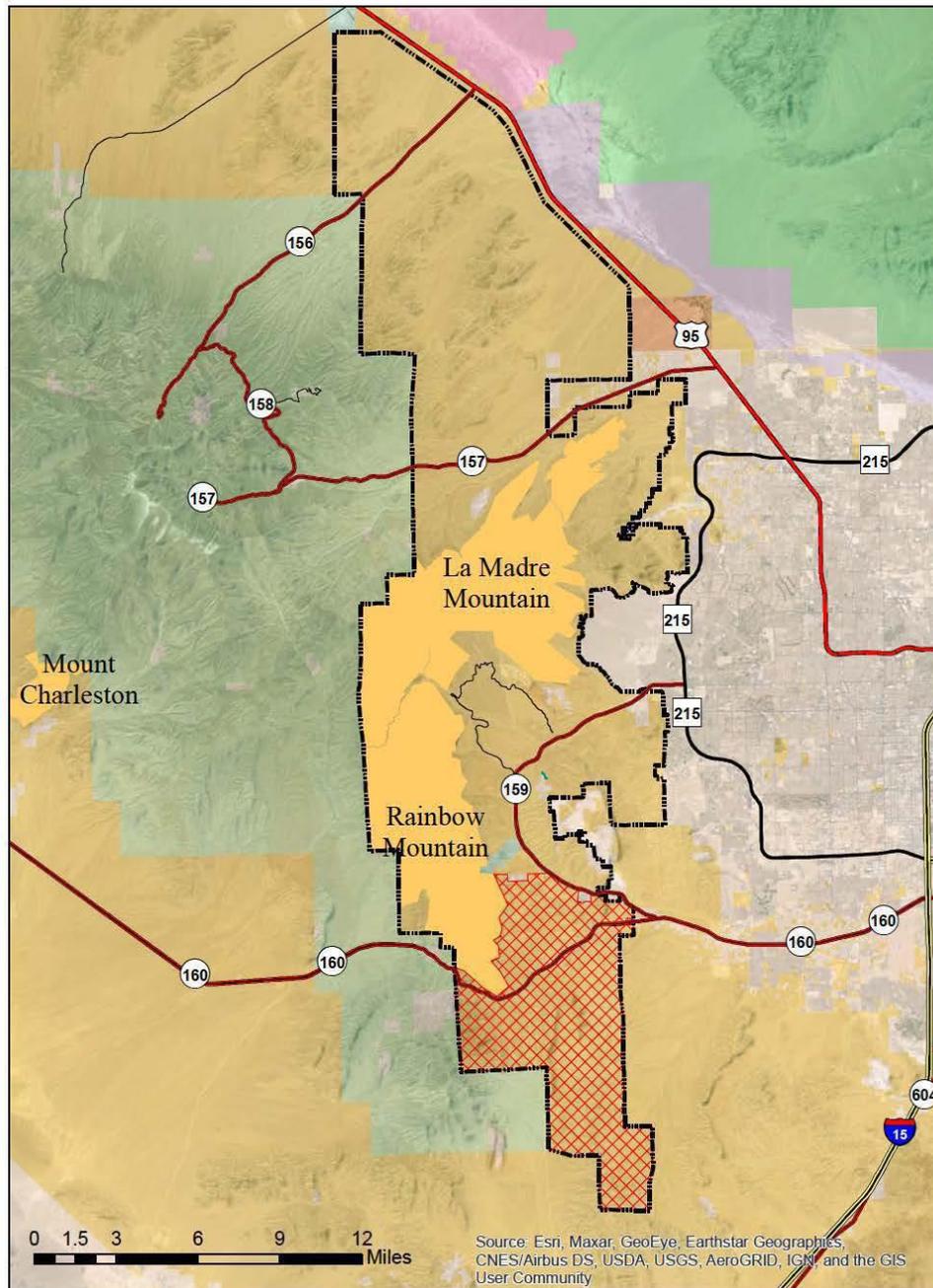
Red Rock Canyon

National Conservation Area



Map

Red Rock Canyon National Conservation Area



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Legend

- Red Rock Canyon National Conservation Area
- BLM Wilderness
- Cottonwood Valley Trail System RAMP

Accomplishments

In 2021 Red Rock Canyon National Conservation Area celebrated many successes, despite the many challenges presented by COVID-19. Below are highlights from two programs.

Wilderness

This year Braydon Gaard, Wilderness Specialist for the BLM Southern Nevada District, conducted a minimum requirement analysis to investigate techniques for managing visitor-use patterns while preserving wilderness character. This analysis looked at the Kraft Mountain Loop Trail and associated social trails and offered solutions to address the issue. Braydon also worked with climbing groups including the Access Fund and Southern Nevada Climbing Coalition, to develop a social trail restoration proposal.

Wildlife

In 2021, biologist Corey Lange conducted multiple wildlife surveys in the NCA, particularly for spring snails at several springs. During those surveys he identified two invasive species that he has been working to eradicate: Western Mosquitofish at Red Spring and Decollate Snails at Willow Spring. Corey has been nearly successful at removing Western Mosquitofish from Red Spring but removing Decollate Snails from Willow Spring has been a challenge as they are much more numerous and difficult to find. With three planned workdays and numerous volunteer, Corey has been able to remove nearly 3,000 Decollate Snails, but many more remain. Corey also deployed two game cameras on water sources within the NCA to monitor wildlife use of these limited resources. These game cameras obtained photos of uncommon and elusive species that most visitors to Red Rock never see such as Spotted Skunk, Ringtail Cat, and Gray Fox (see camera images below). Corey completed surveys for some species of insect that are only known to occur in Red Rock Canyon and discovered a potentially new species of scorpion in Red Rock that lives in sandy areas along washes.



Spotted Skunk



Ringtail Cat



Gray Fox

Challenges

Recreation Challenges

There is increased interest and visitation to the Red Rock Canyon NCA. That interest is focused in a few concentrated areas including the Scenic Drive and Calico Basin. Unauthorized social trails are being created and discovered almost constantly. Red Rock is developing several Recreation Area Management Plans (RAMPs) to address visitation, trail management/planning, and recreation demand. Pending or planned RAMPs include Calico Basin, Harris Springs, Cottonwood Valley, La Madre Foothills. A Climbing Management Plan is also being developed that will address climbing access, commercial use, trail stabilization/delineation/rehabilitation, bolting, and conservation.

Wilderness Challenges

The Las Vegas area is growing on the west and northwest side of the city. This growth will put the wildland-urban interface within close proximity to the La Madre Mountain Wilderness area. There is already increased interest and visitation to the NCA, especially in the designated wilderness areas. User created hiking paths are common and are a result of high visitor use. Mountain bikers and OHV users are causing illegal incursions and very large amounts of legal uses like hiking and horseback riding are causing serious resource damage in designated wilderness.

Currently, there is no official Climbing Management Plan for Red Rock. This use is large and has been increasing dramatically. Impacts to wilderness character include native vegetation damage, installation of bolts, and social trail proliferation. These impacts will likely continue until the Climbing Management Plan is developed and implemented.

Additional challenges include commercial use in wilderness occurring without a needs assessment or adequate analysis being completed, habitat fragmentation occurring near the NCA due to wildland-urban interface growing and visitor use in the NCA expanding to areas previously not utilized for recreation.

Red Rock Canyon Visitor's Center Infrastructure Challenges

As the infrastructure at the Visitor's Center ages, maintenance issues are increasing. BLM Engineering and Maintenance staff work regularly to address these issues to keep the area open, safe and running.

Water to the Visitor Center and Administrative building was shut down following a critical failure of the original well head from 2016. Since then, water has been trucked to the Red Rock Visitor Center while BLM worked to update the well. The site's water system underwent a certification process through the State of Nevada Division of Environmental Protection, Bureau of Safe Drinking Water (BSDW). Since then, BLM has implemented a complete well head replacement and constructed a new pump house. BSDW issued the new permit at the end of calendar year 2021, and the system is currently partially operational supplying water to the Red Rock Fee Station. Water supply to the rest of the Visitor's Center complex has not yet been restored, pending the construction completion of new water distribution lines.

BLM Engineers and Maintenance continue to tackle other infrastructure challenges identified in 2021 but not yet funded for repair. These include fixing a broken drain line from a janitor's closet in one of the restrooms to replacing the old septic system which supports the Fee Station. Planning is underway for both.

Partnerships

Red Rock Canyon National Conservation Area has many long standing and fruitful partnerships with local organizations and agencies.

Friend of Red Rock Canyon (FORRC)

FORRC's mission is the preservation, protection, and enrichment of RRCNCA. FORRC mobilizes and supports more than 300 volunteers annually who complete trail maintenance, cleanup days, graffiti removal, staffing the Visitor Center's information

desk, documenting, protecting and monitoring wildlife, removing invasive species, building fences, repairing boardwalks, striping parking lots, painting facilities, and preserving and maintaining Native American cultural sites. In addition, FORRC supports and manages youth-focused programming including the Outdoor Adventures program and Title I school field trips to RRCNCA. Its members donate an impressive 22,000 hours of their time on average -- the equivalent of 13 full-time employees and valued at more than \$500,000.

Southern Nevada Conservancy (SNC)

For over 30 years, SNC has been providing expert, cost-effective services and programs that enhance the visitor experience at RRCNCA. The mission of the SNC is “to enhance the recreational, educational and interpretive programs of the Bureau of Land Management, and other governmental agencies, by providing materials and services to the public which promote an understanding and appreciation of the natural history, cultural history and sciences of Southern Nevada and specifically, Red Rock Canyon National Conservation Area.” This is done through interpretation and education, retail sales, fee station staffing, and professional and financial support. SNC provides interpretation & education at the Visitor Center, in the field, and in local school classrooms. SNC provides professional and financial support through the design and purchase of interpretive signs, aiding in planning costs, and engaging in trail development and maintenance among other projects. SNC also operates the Elements retail gift shop inside the Visitor Center. All net proceeds from purchases support a wide variety of programs and activities at RRCNCA. Through an assistance agreement with the BLM, SNC also staffs the entrance station to RRCNCA.

Southern Nevada Mountain Bike Association (SNMBA)

SNMBA has helped BLM develop a sustainable approach to mountain biking management in Calico Basin. SNMBA will also be integral to the success of the Cottonwood Valley RAMP.

Southern Nevada Climbers Coalition

The Southern Nevada Climbers Coalition continues to be an active partner and has engaged with trail restoration, delineation, and cleanup, as well as spearheading the WAG bag human waste containment program at Red Rock.

Nevada Department of Wildlife (NDOW)

Coordination with NDOW has helped inform recreation management decisions and direction in the Cottonwood Valley and Calico Basin RAMP projects. NDOW also partners with BLM on wilderness area management planning and implementation.

Back Country Horsemen

The Back Country Horsemen is a national non-profit organization whose members are dedicated to keeping trails open to pack and saddle stock on our public lands. Their local chapter partners with BLM at RRCNCA to build, maintain, and protect wilderness and recreational trails for all users.

Events

November 20-21 marked the second annual Red Rock Rehab event. Volunteers came out to support the Southern Nevada Climbers Coalition and Red Rock Canyon staff in cleaning up Calico Basin of trash, dog waste, graffiti, and doing trail work to restore trail braids, redundant user created trails, and delineate the designated trails at the Kraft boulders. Red Rock Canyon NCA also is host to many permitted events and outfitters every year. Uses include climbing, weddings, OHV tours, bike tours, hiking tours and many others. These types of uses help to connect people to the landscape who might not have the knowledge or means to do it on their own.



Kraft boulders trail restoration-BEFORE



Kraft boulders trail restoration-AFTER



Kraft braid blocking



Kraft trail delineation

Visitors

Visitors continue to use Red Rock Canyon NCA as they have in previous years. Rock climbing, mountain biking, and hiking are the primary uses within the NCA, however, visitation to the Calico Basin increased to approximately 700,000 in Fiscal Year 2021(FY21). The Calico Basin has become increasingly popular as a place for families to picnic and visitors to sight see due to its easy and free access.

The Special Recreation Permit program has continued under a reduced or limited schedule due to COVID-19. During FY21 Red Rock hosted several competitive events including two mountain bike races and half and full marathons. Commercial full-time permits have continued throughout the year to include scooter tours, rock climbing, bicycle, E-bike tours, guided hiking, 4X4 rides, and many weddings.

Education and interpretation efforts at Red Rock Canyon have expanded to include online video and media products that get posted to the BLM Red Rock website, BLM Nevada Facebook, YouTube, and Instagram. These videos include short talks on current natural resource topics such as spring flower blooms and wildlife occurrences called “Tidbits under Ten”, “Read with A Ranger” as a Ranger reads a story to share, “Ranger Secrets” which is about the “secrets” rangers discover while working in nature, “Ask a Ranger” has staff and the public send in questions to our specialists to answer, and “Today in the NCA” which keeps people informed about what is happening in the NCA and also provides the public with health and safety messages.

 **Bureau of Land Management - Nevada**
 April 13 at 6:00 AM · 🌐

The saying may go "April showers bring May flowers", but that's not how it works at Red Rock Canyon National Conservation Area. Our average rainfall in April is only half an inch (1.25 cm), and our wildflowers are out March to mid-May. For some reason, "If we have winter showers, there might be spring flowers" just hasn't caught on. 😞

If you want to learn more about our spring wildflowers, make sure you come out between 9am and 12pm this Saturday. There will be staff with ex... See more



RED ROCK CANYON NCA WILDFLOWERS

  78 5 Comments 13 Shares

A recent post on the Red Rock Canyon NCA Facebook page.

Science

Currently, Red Rock National Conservation Area (NCA) does not have an official applied science plan however the NCA continues to be a premier destination for scientific studies. Specifically, the NCA is an excellent host for scientific studies focused on

human dimensions due to the proximity to the Las Vegas Metropolitan Area, high visitor use, substantial wildland-urban interface, and the diverse demographics. The NCA is working on getting a robust science program in place as directed by BLM manual 6100, and it is anticipated to have a science plan approved by the end of 2022. The two wilderness areas in the NCA will be a primary focus of the science program.

There is a citizen science project being conducted throughout the Southern Nevada District, which includes the NCA, by the Friends of Nevada Wilderness. This citizen science project involves monitoring spring flow, water quality, spring snail populations, and other relevant data points. This project is giving the NCA pertinent information on the status of spring resources assisting in future management decisions.

The BLM and its partners are nearing completion of the large-scale Burned Area Restoration and Monitoring Initiative. This multi-year project has been aimed at investigating the efficacy of targeted restoration efforts, post-fire, in order to facilitate the natural reclamation of impacted lands by native and keystone vegetative communities. Restoring these communities contributes to the resiliency of our desert ecosystems and ensures that they are more resistant to anthropogenic and climatic pressures.

In addition, the BLM is working diligently, through science and evidence-based decisions, to address the effects of climate change (BLM 2022). The Office of Wildland Fire provides funding for scientific studies associated with managing wildland fire, fuels, and fire impacts through the Joint Fire Science Program, which Congress established to address the needs of land managers and policymakers (DOI 2019). The Joint Fire Science Exchange Network, funded by the Joint Fire Science Program, developed a Field Guide for Estimating Desert Invasive Grass Fuel. The guide streamlines field measurements and identifying the threshold to manage invasive annual grasses that would limit wildfire spread (Abella 2020(b)). The Southern Nevada District fuels staff routinely monitors fuel characteristics within the RRNCA to predict and evaluate wildland fire conditions.

A recently published study reviewed the modeling of resilience in the Mojave Desert post-wildfire disturbances. The study analyzed fires within the Red Rock National Conservation Area and surrounding areas of the Mojave Desert, which could aid the BLM in making evidence-based decisions on the trajectories of ecosystems recovery (Abella 2020). Utilizing science and evidence-based research will aid the BLM managers and specialists in determining which actions are needed to restore the landscape after a wildfire has occurred. Post-fire restoration aims to minimize threats to life and property and restore or establish a healthy, stable ecosystem where native species are well represented.

Climate Impacts

The Red Rock National Conservation Area (NCA) is increasingly experiencing impacts associated with habitat fragmentation as visitation increases and the wildland-urban interface encroachment continues. This fragmentation has been largely observed in the Calico Basin area with the loss of most reptile species. Additionally, on the west side of the NCA there is a paramount Big Horn Sheep migration corridor under State Route 160. This migration corridor is currently fragmented by a user-created mountain bike trail and growing recreation use in the area. The BLM is currently working on management plans to remove or minimize creators of fragmentation throughout the NCA. Additionally, the NCA is experiencing elevated annual temperatures and prolonged drought impacting water availability for wildlife and native botanical resources.

The BLM is also adjusting its workforce structure in response to intensifying climate change and lengthening fire seasons. The transformation will focus on converting the seasonally based wildland fire workforce to permanent year-round positions to address the prolonged and intensified fire seasons and the need to manage and reduce hazardous fuels (Gardetto 2021). This workforce alignment will benefit Southern Nevada, especially frequently visited areas like the Red Rock National Conservation Area, which is susceptible to year-round human ignited fires.

Climate resiliency

The Biden Administration's approved [Executive Order on Tackling the Climate at Home and Abroad](#) requires the Federal Government to protect America's natural treasures, increase reforestation, improve access to recreation, and increase resilience to wildfires and storms (EO 14008).

Locally a coordinated effort by local, county, state, tribal, and federal agencies developed the Springs Mountain Multi-Jurisdictional Fuels Reduction and Wildfire Prevention Strategy to reduce the probability of catastrophic fires in the Springs Mountain Multi-jurisdictional area. The BLM has continued with this planning effort and developed the Red Rock Hazardous Fuels Management Plan to identify and evaluate the wildfire risk within the RRNCA. Once adopted, it will provide a strategy for improving and maintaining fire resiliency.

As part of the specific climate resiliency efforts at the NCA, the Springs Restoration and Monitoring Initiative is continuing to be an effective means of managing and improving the overall quality of critical springs systems within the NCA. The perched aquifer springs within the NCA are among the most vulnerable ecosystems impacted by climate change within the Mojave Desert. Many endemic and native species reside within the conservation area and are heavily reliant on the resources found within and

near these fresh water sources. Efforts to replace invasive, non-native plant species with natives historically associated with these sites have been fruitful and are part of a growing effort to utilize some springs within the NCA as host sites for endemic species that have been extirpated from or that are in decline across their local ranges. Also, water quality and flow monitoring at these sites has and is currently contributing to our knowledge of Best Management Practices for spring systems by shedding light on seasonal and yearly variations in output and the natural pressures associated with each system on a temporal basis.

In addition, the NCA manages two wilderness areas that serve as a transition zone from the low desert to higher alpine climates, these are helping with species adaptability to ongoing climate change. The NCA is also working to restore and manage vehicle use on unsanctioned routes, especially in zones that have been closed to motorized travel, to reduce dust in the Las Vegas Metropolitan Area. Lastly, the NCA is aggressively working on management plans to address the growing visitor use by offering a world class recreation experience while limiting ecological impacts. Notable recreation projects include implementing a timed entry and reservation system for the scenic loop area and a draft recreation area management plan for the Calico Basin area.



A local hand crew is digging a handline in Red Rock Canyon.

Social and Environmental Justice

During the COVID-19 restrictions much of the NCA's outreach shifted from in-person to digital media, including public meetings. We had several public meetings as part of our Recreation Area Management Plan (RAMP) efforts we are implementing at Calico Basin and Harris Spring. Impacted communities, such as Calico were contacted separately and were provided opportunity to voice the concerns and provide input into our planning efforts. The NCA continues to work closely with impacted communities in all planning efforts. Through the virtual meetings we have been able to reach more interested members of the public than we had during our in-person meetings. The NCA also strives to be a place where under-represented communities feel welcome to explore their public lands. The NCA offers a diverse set of interpretive programs in person and using online and social media platforms. While statistics aren't available, the approach has led to strong community involvement in the NCA from many different communities in the area.

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