



NATIONAL CONSERVATION LANDS

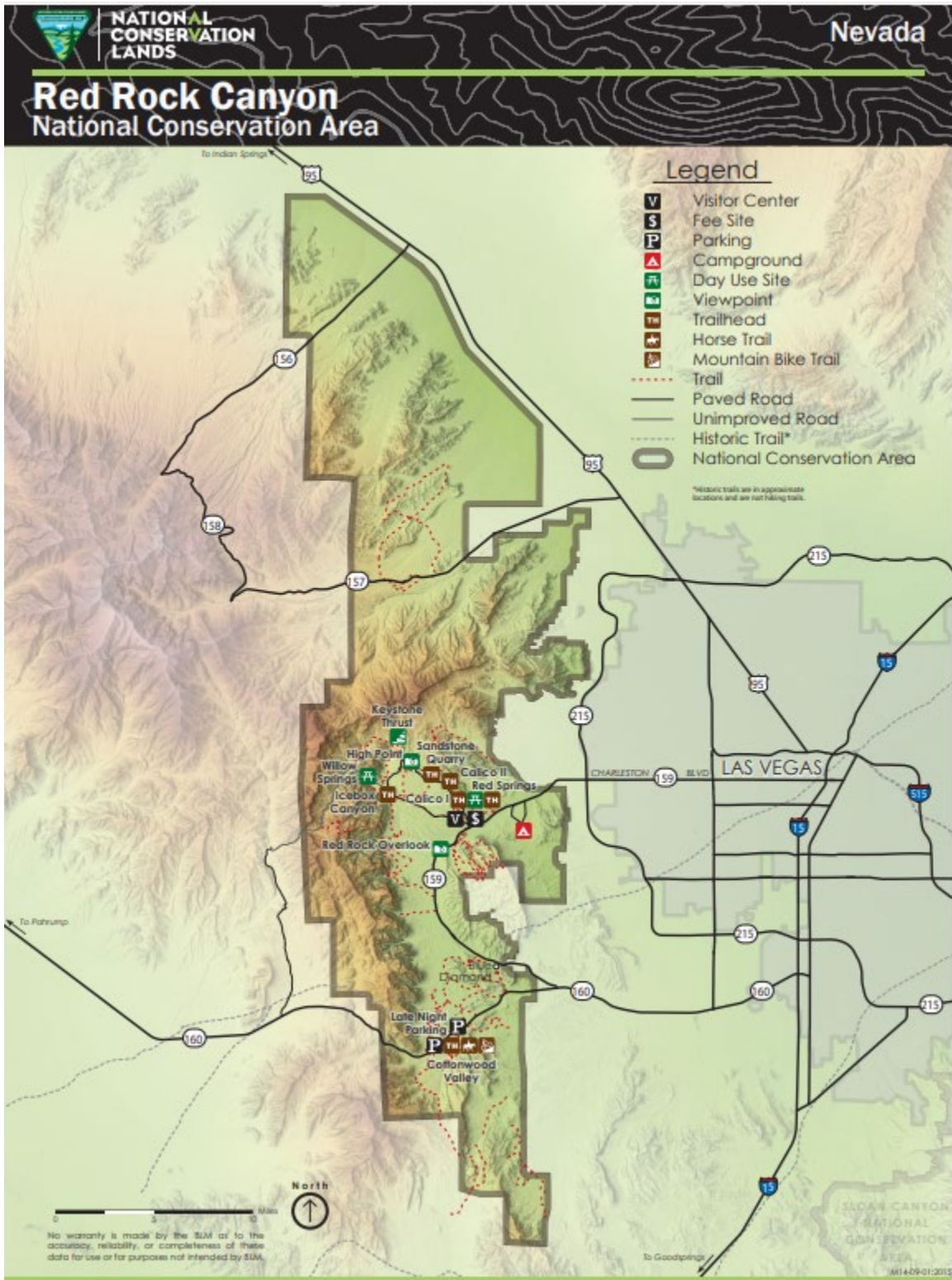
Nevada
2022: Annual Manager's Report

Red Rock Canyon

National Conservation Area



Map



Accomplishments

In 2022 Red Rock Canyon National Conservation Area (RRCNCA) had many successes.

Interpretation

Visitation drastically increased during Fiscal Year (FY) 2022 with the easing of COVID restrictions and growing travel. This was reflected in interpretive statistics with quadrupled visitor contacts and hundreds more interpretive programs offered. In 2021 only 4,770 visitors were contacted compared to 22,989 visitors in 2022.

Several improvements were made to services other than in-person interpretive programming. Fire education wayside signs were installed as a part of a Southern Nevada Public Land Management Act (SNPLMA) project at High Point Overlook and a handout detailing trails around the visitor center was completed. The handout has made a significant positive impact due to a large increase of walk-in visitors.

RRCNCA unfortunately witnesses several tragic suicides per year, with concentrations around the holidays. In January 2022, BLM Interpretive Ranger Anica Mercado posted a video highlighting this problem and encouraging people to seek help. Her personal story demonstrates creativity, honesty, and courage – and serves as an important interpretive tool that enhances visitor safety and awareness. The video won the BLM’s INSPIRE Award for interpretation and at the annual National Association of Interpreters Conference Anica was presented with the award.



BLM Interpretive Ranger Anica Mercado (left) with fellow BLM INSPIRE award winner.

Archaeology

In 2022, the BLM authorized two research proposals and one large scale pedestrian survey project within RRCNCA. One research proposal was authorized to complete portable x-ray fluorescence testing on a polychrome panel within the Brownstone Archaeological District, which is listed on the National Register of Historic Places. The findings were successful in determining some of the pigment compositions used by native peoples to create this panel. Future research opportunities may result from this project, leading to a better understanding of the history of the Spring Mountain Ranges.

A second ongoing research project is being completed by the College of Southern Nevada in the Calico Basin and Red Springs area of RRCNCA. Most of this project is focused on re-analyzing artifact collections held by museums and University of Nevada – Las Vegas (UNLV) with the goal of consolidating data to increase our understanding of the history of Calico Basin and Red Springs. To date, the identified artifacts have pushed the oldest use dates back a few thousand years, proving that humans were in the area before current data suggests.

Lastly, a large-scale Class III pedestrian survey was contracted for the Cottonwood Valley area of RRCNCA totaling over 1000 acres. The Cottonwood Valley area comprises the southern 1/3 of the NCA, which has seen an increase in use and the creation of unsanctioned trails. The survey has updated site data for 10 previously recorded sites, including the Old Spanish Trail/Mormon Road. Additionally, the survey identified and recorded 19 new cultural sites. The survey findings will be used to inform future management decisions regarding recreation and trail management for this region.

Paleontology

During 2022, staff drafted and completed a Paleontological Resources Management Plan (PRMP) to bring the Field Office into compliance with the Paleontological Resources Preservation Act, and PIM 2022-009. The PRMP included an in-depth write up of the Potential Fossil Yield Classification (PFYC) found within RRCNCA. This process also included developing a catalog and GIS layer to track and monitor known paleontological localities.

Wildlife

In 2022, staff conducted multiple wildlife surveys in the NCA, particularly for Spring Snails at several springs. During surveys two invasive species were identified and work has begun to eradicate Western Mosquitofish at Red Spring and Decollate Snails at Willow Spring. In 2022, RRSFO was successful at removing Western Mosquitofish from Red Spring. However, removing Decollate Snails from Willow Spring has been a challenge as they are much more numerous and harder to find. To date the RRSFO and volunteers, have been able to remove over 4,000 Decollate Snails. Many remain, but a significant decrease in the number of snails has been seen with each eradication trip.

BLM staff 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 Canyon never see. Species captured by the game cameras include Spotted Skunk, Ringtail Cat, Gray Fox, and Golden Eagle (see camera images below). In addition, RRSFO discovered that the Sin City Scorpion (*Pseudouroctonus peccatum*) calls Red Spring in Calico Basin home. This is the lowest elevational record for the species.



Spotted Skunk

Wilderness

This year the BLM Southern Nevada District, which assists in management of all district wilderness areas, completed the Minimum Requirement Decision Guide (MRDG) for the Kraft Mountain Loop Trail project. Shortly after the MRDG was finalized, the Kraft Mountain Loop Trail was restored with the cooperation of the Southern Nevada Climbing Coalition and other volunteers. All unnecessary and unsustainable social trails in the area were rehabilitated. Additionally, a new kiosk was installed at the Harris Spring wilderness boundary, increasing the agency's ability to provide the public with wilderness education and boundary visibility.

Wildland Fire and Fuels Management

In 2022, drought reduced fine fuel (grass) production, which helped reduce wildfire risk. There were six wildfires that burned within the NCA and twenty more wildfires that burned in the vicinity of the NCA. Almost all the fires were human caused and 1/10 of an acre or less. Security and network communication needs were identified at the BLM Red Rock Fire Station which are planned to be addressed in FY23. The AM radio station 1610 broadcasted fire prevention messaging and helped keep visitors informed of current fire danger. Currently, there are two emergency stabilization and rehabilitation projects in RRCNCA in the Pine Creek and Cottonwood areas. Due to low annual grass production and invasive weed germination through FY22 no weed treatments were conducted for either project. A small amount of native seed collected within Red Rock Canyon was distributed in the Pine Creek burn scar in FY22.

Science

Important works were published about the status of rare and endangered plants in the state of Nevada; listed species within these documents include southern Nevada-endemics and rare species. Furthermore, district biologists were contacted to provide input on future additions to these lists, promoting the conservation of special-status plants within the NCA.

The United States Geological Survey (USGS) Nevada Water Science Center has continued to conduct assessments and research on tinajas within the NCA. In FY22 specific focus had shifted to the tinaja system in "Little Zion" which is located in the Rainbow Mountain Wilderness area. We now have a year of data from the site, and it shows that the Little Zion site stays wet year-round except for about 6 weeks in the early summer before the monsoons start. The data indicates that the pools gently filled in the winter and stay full, while monsoons tend to flush them out before filling. These tinajas are more of a successive complex, meaning they flow into each other. The pool pictured below is one of over a dozen, and is actually more upstream and shallower than others, so there's likely water in lower pools year-round. This pool was chosen to gage because it provides the likeliest wildlife watering spot due to its shallow slopes and its surrounding vegetation.



Tinaja system in Little Zion Area

Tribal Community Involvement

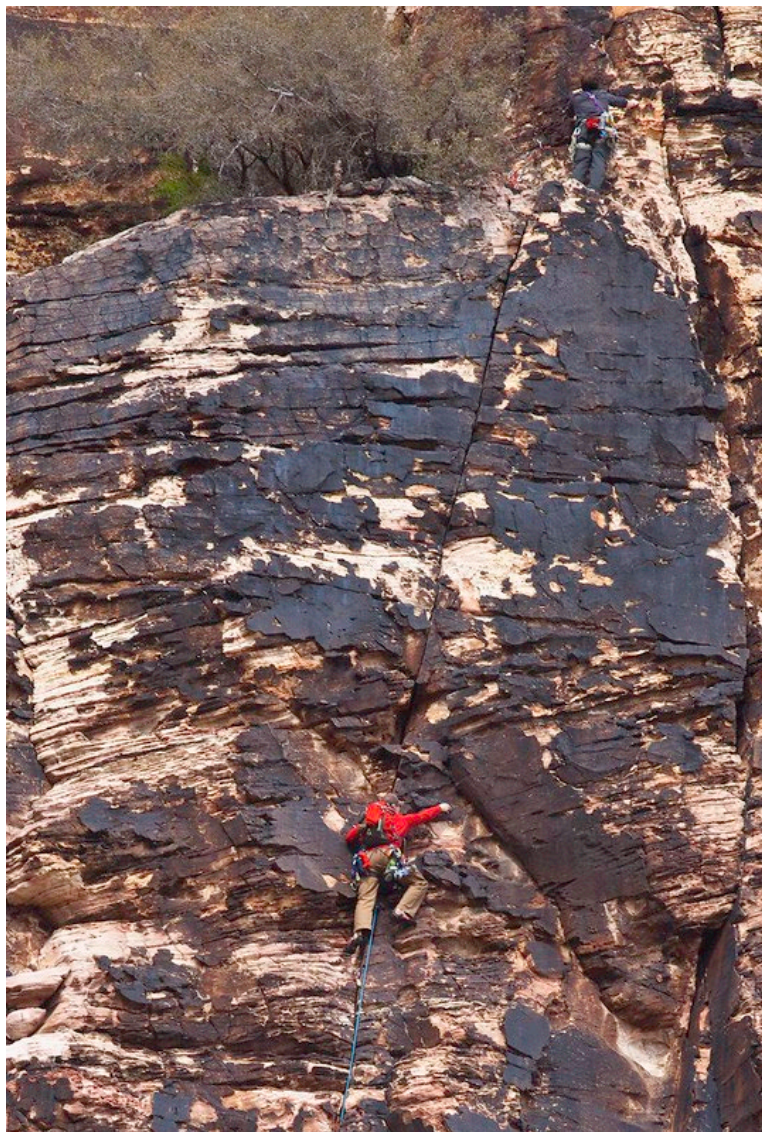
During FY22, RRCNCA staff continued engaging tribes from Arizona, Utah, Nevada, and California, each with cultural and spiritual connections to RRCNCA. The sharing of culture, tradition, symbolism, and language has profoundly impacted the collaborative effort to share the story and significance of RRCNCA in the interpretive materials displayed for visitors.

Challenges

Recreation Challenges

RRCNCA receives about 3.8 million visitors and has a staff of about 34 employees. Similar units in the National Park Service, such as Yosemite, which received 3.5 million visitors and has a staff of 89 employees or Zion, which receives about 4.7 million visitors and has a staff of 173 employees. This low staffing level means RRCNCA is challenged to provide the same level of visitor services, resource protection and monitoring as other prime recreational land management units.

There is increased interest in and visitation to RRCNCA. This interest is focused in a few concentrated areas like the Scenic Drive and Calico Basin. Unauthorized social trails are being created and discovered every month. These trails are created and used by mountain bikers, hikers, climbers, and to a lesser extent by equestrians. Red Rock is continuing to develop several Recreation Area Management Plans (RAMPs) to address visitation, trail management/planning, and recreation demand (Cottonwood Valley and La Madre Foothills). The Calico Basin RAMP was completed in FY2022. The Harris Spring RAMP will be completed in the first half of FY2023. Additionally, an ambitious climbing management plan is in early stages. It will address climbing access, path stabilization/delineation, bolting, safety, search and rescue, patrols, and conservation. All these efforts are multi-year processes and require intensive planning and public outreach.



Rock climber in the NCA

Wilderness Challenges

As the rapid growth in the Las Vegas metropolitan area continues, so does the expansion of the wildland-urban interface near to the La Madre Mountain Wilderness. There is an increasing demand for outdoor recreation opportunities and, consequently, an increasing interest visiting the NCA and associated Wilderness areas. Of the 3.8 million visitors to the Red Rock Canyon NCA in 2022, 1.2 million visited the Calico Basin area near the La Madre Mountain Wilderness area and an estimated 70% of those visitors accessed the wilderness area itself. Visitor-worn hiking paths are widespread throughout the NCA and are the direct result of increasingly high visitor use. Additionally, though a portion of the paths within the wilderness are the results of unconfined cross-country activity, many trails are created for uses prohibited in the designated wilderness including motorized use and mountain biking.

Growing visitation has also contributed to an increase in climbing activity in the NCA, especially at climbing areas within Wilderness. Impacts to wilderness character include native vegetation damage, unsanctioned bolt installations, and social trail proliferation. While there currently is no climbing management plan for the NCA. Planning has been prioritized amongst our interdisciplinary team and extensive discussion is actively taking place.

Other challenges facing the wilderness include commercial activities, habitat fragmentation occurring in proximity to the NCA due to a growing wildland-urban interface, and increasing recreation demands expanding into previously unutilized areas. Moving into 2023, an extensive needs assessment is being discussed and conducted to analyze commercial use in wilderness.

Weeds Management Challenges

Multiple significant precipitation events in the summer of 2022 contributed to the emergence of Puncturevine in Red Rock Canyon NCA. Treatment efforts were focused on Late Night, Pine Creek and Willow Spring Trailheads. BLM also received reports of puncturevine showing up along mountain biking trails originating from Late Night Trailhead. Fountain Grass (*Pennisetum setaceum*), a Nevada State listed noxious weed, has begun to invade different areas of RRCNCA. Russian olive continues to linger in the form of one or two plants at Red Spring. No control was done in FY22 but will likely be conducted in FY23. Drought conditions persisted in FY22, which contributed to reduced production of invasive annual grass (especially Red Brome) in RRCNCA. Development of a weed plan specifically for RRCNCA would help with direction for weed management in Red Rock Canyon.

Red Rock Canyon Infrastructure Challenges

As the infrastructure at the administration building and the visitor center ages, maintenance and infrastructure issues continue to grow. These serve as one of the primary challenges for RRCNCA's daily operations. The drastic increase in visitation has put additional pressure on the aging infrastructure, contributing further to concerns regarding public health and safety and the ability to provide a high-quality recreation experience for visitors.

BLM engineers and maintenance staff continue to tackle the infrastructure challenges identified and funded in 2022. These include fixing a broken drain line, replacing water pumps, replacing the old septic system which supports the visitor center and administration building, and replacing HVAC units in the administration building. In addition to these projects, we have prioritized the critical problems so that maintenance needs will continue to be addressed as funding becomes available.

The visitor center's outdoor exhibits, which were installed in 2010, have been exposed to the harsh Southern Nevada sun and have begun to deteriorate. BLM is working with the Southern Nevada Conservancy (SNC) to repair and update these.

Other infrastructure projects within the NCA, that have completed NEPA documentation and have funding associated with them, are being delayed by limited staff capacity in the BLM support services division. The staff that support the NCA are doing an incredible job but have substantial workloads.



A view of the red sandstone Calico Hills, with the gray limestone Spring Mountains.

Partnerships

RRNCA has many ongoing and amazing partnerships, including:

Friend of Red Rock Canyon (FORRC)

FORRC's mission is the preservation, protection, and enrichment of RRCNCA. FORRC mobilizes and supports over 300 volunteers annually. Volunteers perform a wide array of important tasks including trail maintenance, graffiti removal, and visitor center support. In addition, FORRC supports and manages youth-focused programming including the Outdoor Adventures program and Title 1 school field trips to RRCNCA. Its members donate an impressive 22,000 hours of their time and talents to RRCNCA annually -- 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. SNC provide interpretation and education at the Visitor Center, in the field, and in school classrooms. SNC provides professional and financial support in many ways, including the design and purchase of interpretive signs, planning costs, trail development and maintenance and other projects. SNC also operates the Elements retail gift shop inside the visitor center and staffs the entrance booth to RRNCA. All this work is accomplished through an assistance agreement with the BLM.

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 (SNCC)

SNCC 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 RRCNCA.

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 management decisions and directions.

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. They partner with BLM at RRCNCA to build, maintain, and protect wilderness and recreational trails for all users.

Science

Science Plan Draft

RRNCA has robustly engaged the scientific community to provide access to the NCA as a living laboratory and classroom for decades. These partnerships have led to both better understanding of the ecosystem and our impacts to it. We have also been able to develop more complete pictures of impacts to projects in our NEPA analysis and make more informed decisions. To further those accomplishments, in 2022 RRNCA began drafting a new science plan. Work on the plan will continue in 2023 with the promise of engaging USGS as a partner in the planning process.

Climate Impacts

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.

Climate Resiliency

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.

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. Even as the BLM moves back to more in person options for public involvement, we continue to utilize virtual meetings. Through these we have been able to reach more interested members of the public than we had during our in-person only 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. BLM NV is working on finalizing a step down recreation strategy that will focus on specific techniques for increasing equity and access for recreation use on BLM lands.

Events

November 20th and 21st marked the third annual Red Rock Rehab event. Volunteers came out to support the Access Fund, Southern Nevada Climbers Coalition, and RRCNCA staff in restoring 5 miles of trail braids and delineating the main hiking trail in First Creek Canyon. Volunteers also took the chance to clean up Calico Basin, First Creek, South Oak Creek, and Middle Oak Creek trails. They cleaned up trash and dog waste, scrubbed graffiti, and did trail work to restore trail braids, redundant user created trails, and delineate the designated trails in the Kraft Boulders area.



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Red Rock Canyon National Conservation Area

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