



## **Red Cliffs National Conservation Area**

**National Landscape Conservation System  
FY 2009 Annual Manager's Report**



**Introductory Information:  
Red Cliffs National Conservation Area**

**Utah State Office  
Color Country District  
St. George Field Office  
345 East Riverside Drive  
St. George, UT 84790  
435-688-3200  
[www.blm.gov/ut/st/en/fo/st\\_george.html](http://www.blm.gov/ut/st/en/fo/st_george.html)**

**NCA Manager: Position Unfilled At This Time**

**Legal Authority: Omnibus Public Land Management Act of 2009  
(P.L. 111-11), signed into law March 30, 2009**

**Total Acres: 45,000 acres  
Estimated Annual Visitation: 100,000**

**Key Resources and Values:**

- **Important Biological, Ecological, Cultural, Historical, Paleontological, and Scenic Resources**
- **Diverse Recreational Opportunities**

# 1. Physical Condition of Natural, Cultural, and Paleontological Resources

## Natural Resources and Trends

The newly-designated Red Cliffs NCA is located at the convergence of the Colorado Plateau, Great Basin, and Mojave Desert, in Washington County, Utah. The Virgin River flows along a short segment of the eastern boundary of the NCA. This ecologically rich transition zone supports a diverse mix of species, many at the extremes of their natural ranges. A majority of the land base of the NCA provides critical habitat for a genetically distinctive population of Mojave Desert tortoise, a federally-listed threatened species. The northern-most populations of Gila monster and sidewinder rattlesnake are found here, on the rocky hillsides and in the sand dunes that cover some areas of the NCA. The NCA also provides designated critical habitat for the Shivwits milk-vetch, a small native plant whose very specific habitat requirements limit it to Washington County. Of the six native fish of the Virgin River, five occur within the reach that flows through the NCA: woundfin minnow, Virgin River chub, speckled dace, Virgin spinedace, and the desert sucker. Aquatic habitat loss along the river has required the listing of the woundfin minnow and Virgin River chub as endangered species.



### ***Background Information***

The Red Cliffs NCA comprises approximately 70% of the land base of a multi-jurisdictional special management area, known as the Red Cliffs Desert Reserve (RCDR), in existence since 1996. A confederation of entities, including SGFO-BLM, Washington County, the U.S. Fish and Wildlife Service (USFWS), the State of Utah's Division of Wildlife Resources (UDWR) and Division of State Parks-Snow Canyon State Park, and several local municipalities, collaboratively manages the approximately 62,000-acre land base of the RCDR to assist the recovery and delisting of the Mojave Desert tortoise, threatened and endangered native plants, and other at-risk Mojave Desert species.

The RCDR is the key mitigation component of the *Washington County Habitat Conservation Plan* (HCP- Washington County 1996) and the county's Incidental Take Permit. The Incidental Take Permit allows growth and development to occur on non-federal lands in Washington County in an orderly and predictable manner, eliminating the need for multiple consultations with the USFWS under Section 10 of the Endangered Species Act (ESA) and the development of project-specific HCPs. The participating land managing agencies signed an Implementation Agreement for the HCP in 1996, authorizing Washington County to assume responsibility for tortoise management issues within the boundaries of the RCDR.

Since its establishment, management of the RCDR has been consistent with direction from the HCP and the *Recovery Plan for the Mojave Desert Tortoise* (USFWS 1994). Activities that negatively impact listed species and their critical habitats are generally not authorized within the RCDR. If authorization for these types of projects (e.g., transmission lines) must be granted, impacts are mitigated to the maximum extent possible and habitat restoration

required as part of the approved mitigation measures.

Public recreation is authorized within the RCDR, but managed through restrictions on the types of activities that can occur in each of the five identified zones of the RCDR. Public lands comprise a majority of Zone 3, where management prescriptions require that motorized vehicle travel occur only on designated roads and non-motorized recreation take place only on designated trails, with parking and trail access from designated trailheads. The roads, trails, and parking area/trailheads were designated through the *Red Cliffs Desert Reserve Public Use Plan* and a supporting environmental assessment, collaboratively prepared by SGFO and Washington County through an extensive public process between 1999 and 2001. Restrictions are enforced through integrated methods that include boundary fencing and signing, regulatory signing, public education, and law enforcement patrols.

### **Monitoring and Trends**

Mojave Desert tortoise populations and habitat conditions are monitored biennially by the Utah Division of Wildlife Resources (UDWR), as part of long-term studies conducted in partnership with BLM, Washington County, and other entities that participate in the Washington County HCP. Population trends appeared to be stable until 2002-2003, when drought conditions caused a decline in tortoise reproduction and survival rates. In 2005 and 2006, catastrophic wild fires consumed more than 14,000 acres of Mojave Desert tortoise habitat in the Red Cliffs NCA, resulting in mortalities to an estimated 20% of the tortoise population on public lands. Monitoring studies completed by UDWR in 2007 continued to show declines in tortoise populations throughout the NCA. Transect data were collected in 2009 but have yet to be compiled by UDWR.

### **Restoration and Stewardship**

Post wild fire habitat restoration efforts have included aerial re-seeding of burned areas with native grasses, forbs, and shrub species. Seed sprouting and survival have been monitored by BLM and UDWR, with success rates of less than 30% reported in some areas of the NCA. Here, and elsewhere in the Mojave Desert, wildfires have become more frequent, burning with such heat intensity that they consume thousands of acres of native vegetation. Most fires are fueled by a dense understory of invasive non-native grasses, such as cheat grass and red brome, which respond favorably to post-fire conditions and prevent the re-establishment of native species.

Federal, military, state, and local governmental entities that manage lands in the Mojave Desert are currently funding research and exploring options to prevent wildfires and improve the success of rehabilitation efforts, through the Mojave Desert Initiative (MDI). In 2009, MDI participants visited the Red Cliffs NCA to gather information on the success of post fire habitat restoration efforts. In FY 09, American Recovery and Reinvestment Act of 2009 (ARRA) funding was obligated by Utah, Nevada, and Arizona BLM offices to support various research projects, including plant materials studies, to be directed by the USGS. The focus of these studies will be to evaluate the success of selectively engineered native and non-native species for use in post-fire rehabilitation. The long-term goal will be to develop seed strains that propagate quickly and with sufficient vigor to out-compete the invasive grass species. One of the study plots for the plant materials research will be located in the

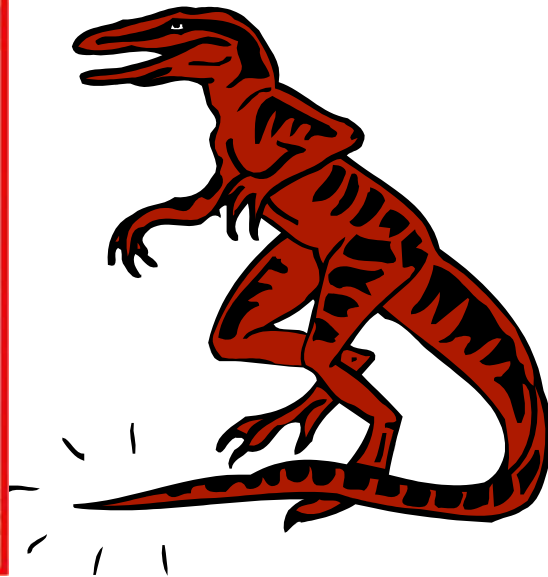
Red Cliffs NCA. “Green-stripping” and other hazard fuel reduction projects are planned along major roadways in the NCA are planned for 2010, to lessen help prevent wild fires in areas of the Red Cliffs NCA where habitat has not previously been damaged by fire.

### **Cultural Resources:**

The Red Cliffs NCA preserves archeological sites that attest to the broad span of human occupation of southern Utah. While no large scale Class III inventories have yet been completed here, sites have been recorded that date from the Archaic Period (7,000 B.C-100 B.C.); the Formative Period (300 B.C.-1200 A.D.); the Neo-Archaic Period (1250 A.D.-1700 A.D.) and the Historic Period (1776 A.D. onward). The overall condition of cultural resource sites within Red Cliffs NCA should be considered “Good” and there have been no known cases of significant or large scale problems with vandalism or looting, although minor problems (initials scratched into rock art panels and small, opportunistic, one-or-two hole excavations usually in rock shelter sites, for example) do occur sporadically.

### **Paleontological Resources:**

Dinosaur tracks, trackways, and fossilized skeletal remains; plant fossils; and fossilized invertebrate burrows are among the paleontological resources that have been identified in the Red Cliffs NCA. Most fossil localities are Early Jurassic in age and are exposed in the upper “transition member of the Kayenta Formation. Trackways include *Kayentapus*, *Eurobrontes* and *Grallator* type tracks, many with toe pads and claw marks.



## Wilderness

Two designated two wilderness areas are located totally or partially within the boundaries of the new Red Cliffs NCA: the Cottonwood Canyon Wilderness and the Red Mountain Wilderness.

### Cottonwood Canyon Wilderness

Located within the transition zone between the canyons and plateaus of the Colorado Plateau and the Mojave Desert, the approximately 11,700 acre Cottonwood Canyon Wilderness is comprised of rugged topography. Numerous small canyons have been down cut by eons of wind and water erosion through the massive block of Jurassic period orange-red Navajo sandstone. The resulting landscape is both austere and intimate, creating outstanding opportunities for solitude, natural quiet, and hiking and backpacking, just a short drive from the urban center of St. George and the other municipalities of Washington County. The massive dark gray lacolith of the Pine Valley Mountains, the largest in the nation, rises behind the Cottonwood Canyon Wilderness, creating a scenic backdrop for the communities of the St. George Basin. Easy access from BLM's Red Cliffs Recreation Area within the Red Cliffs NCA, make the Cottonwood Canyon Wilderness one of the most visited wild areas in southwestern Utah.



Although the area is geologically at the western edge of the Colorado Plateau, the plant and animals species that inhabit this wilderness are those of the arid Mojave

Desert. Pockets of desert shrubs cover the sand dunes and rocky outcrops. Mojave Desert species such as narrow-leaf yucca, cholla, and creosote bushes are found in the lowlands; shade-giving Fremont cottonwoods and native willows grow along several intermittent streams. At higher elevations, pinyon pine and Utah juniper cover the slopes of the wilderness area. Mule deer, mountain lion, bobcat, and kit fox live here, as do they farther east on the Colorado Plateau. Mojave Desert species, including the federally-listed threatened Mojave Desert tortoise, Gila monster and the chuckwalla lizards are also residents of the Cottonwood Canyon Wilderness. Golden eagles, bald eagles, peregrine falcon, red-tailed, Cooper's, and sharp-shinned hawks circle the craggy canyons of this wilderness area, searching for prey.

### **Red Mountain Wilderness**

A large block of orange-red Navajo Sandstone is the geologic setting of the 18,700 acre Red Mountain Wilderness, of which approximately half of the wilderness acreage is within the Red Cliffs NCA. The Santa Clara River channel bounds this unit on the west, while Snow Canyon State Park forms its south and eastern boundaries. The mountain top is a dramatic expanse of rugged sandstone, covered with pinyon pine, Utah juniper, and an understory of sagebrush, Manzanita, and scrub oak. Mule deer, mountain lion, bobcats, jackrabbits, cottontail rabbits, and coyotes are the most commonly observed wildlife of this Wilderness. Hikers and backpackers enjoy panoramic vistas of the spires and mesas of Zion National Park to the east, the Virgin River Gorge to the south, and the high peaks of the Beaver Dam Mountains. A side canyon heading east from Snow Canyon into the area can be explored from the State Park. Equestrians find many opportunities for trail riding in the Red Mountain Wilderness, with some trails leading to spectacular overlooks into Snow Canyon, where black basalt flows overlie the orange-red Navajo sandstone, creating a dramatic visual contrast.

## **2. Recreation Facilities, Roads, and Trailheads/Trails**

### **Red Cliffs Recreation Area**

Recreation facilities include 15 campsites, paved parking areas, day use and group use areas, double vault toilet, interpretive signs, and register/fee collection boxes, three designated hiking trails, and three interpreted cultural resource sites: a 10<sup>th</sup> century Ancestral Puebloan habitation site; the 1860s era Orson Adams farmstead; and a 1950s Hollywood movie set. Fees are collected for overnight camping and day use of the Recreation Area. The recreation facilities at the Red Cliffs Recreation Area are in good condition.

**Total FY 09 Visitor Use Days at the Recreation Area: 25,000**

### **Roads:**

Roads through and adjacent to the Red Cliffs NCA include Interstate highway (I-15), State Highway 18, a paved access road to the Red Cliffs Recreation Area, and several county-maintained gravel roads. ARRA funding will be used in 2010 to repave/reconstruct the 3 mile paved access road to the Red Cliffs Recreation Site.

### **Trailheads and Trails**

The Red Cliffs NCA currently has over 130 miles of designated, non-motorized trails and 10 developed trailheads with fenced parking areas and information kiosks.

### **New Trailhead Construction**

ARRA funding has been obligated to construct two new trailheads (White Reef and Red Mountain) that will provide fenced parking areas, interpretive kiosks, vault toilets, and other visitor amenities. Both are scheduled for completion in FY10. The White Reef trailhead will provide access to a newly designated approximately 6 mile long non-motorized trail system that will provide connections to other trails in the NCA. New interpretive panels will be installed at points of interest along the new trail system, including the remains of a 1950s era

Hollywood movie set from the filming of *They Came to Cordura*, starring Gary Cooper, Rita Hayworth, Tab Hunter, and many other Hollywood stars of the era.

**Total FY09 Trail Visitor Use Days: 75,000**

### **Special Recreation Permits**

SGFO issued 9 commercial Special Recreation Permits for the Red Cliffs NCA in FY 09, generating approximately \$8100 from SRP fees.

## **3. Outreach, Environmental Education, Interpretation, and Volunteers**

### **Website:**

An NCA-specific website has not yet been developed. The SGFO website has links to information about the Red Cliffs NCA, the Red Cliffs Recreation Area, trails/trailheads, and other visitor amenities, including the interpreted Ancestral Puebloan site and the historic Orson Adams House and Farmstead.

The Washington County Habitat Conservation Plan Administrator's Office maintains and updates a website for the Red Cliffs Desert Reserve that includes information about the trails/trailheads and visitor use restrictions for the Red Cliffs NCA.

### **Fact Sheets and Brochures:**

Following the designation of the new NCA in March of 2009, the SGFO prepared a two-sided Fact Sheet that provided information about its resource values, with a map showing location and boundaries of the new unit. The Fact Sheet is available in the Public Room of the SGFO and is also posted on the SGFO website.

The "Orson B. Adams House" brochure is available from the SGFO and describes the history and restoration of this mid-1860s historic home, located in the NCA.

The Washington County HCP Administrator's Office has produced a number of brochures, including three new age-group specific pamphlets in 2009 that provide information on the natural resources of the Red Cliffs Desert Reserve, for which the NCA comprises approximately 70% of the land base.

## **Outreach and Education**

The SGFO and the Washington County HCP Administrator's staff conducted 75 outreach presentations in FY09, describing the resource values of the NCA and Mojave Desert tortoise awareness trainings. Staff also provided support a booth at the Washington County Fair, a one day "Junior Ranger Program", and the week-long Color Country Nature Camp", jointly funded by SGFO and the Arizona Strip BLM, as part of "Take It Outdoors" initiatives. The total audience for the various outreach programs is estimated to be in excess of 15,000 contacts.

### **Visitor Use Maps:**

SGFO has drafted a Special Edition 100K Visitor Use Map that will include visitor information about the Red Cliffs NCA on the brochure side of the map. The reverse side will be a 100K topographic and land status map of Washington County, displaying the new NLCS units designated by P.L. 111-11, as well as other popular recreation trails, special management areas, and interpretive sites managed by the SGFO. Cartography, design, editing, and printing of 10,000 copies of the new map will be completed by the NOC in 2010.

ARRA funding was obligated by SGFO in 2009 to update the Red Cliffs Desert Reserve Visitor Map, to show new trails and trailheads and add information about the designation of the Red Cliffs NCA.

### **Resource Interpretation: Orson B. Adams House and Farmstead**

An interpretive concept design was developed in FY09 for the historic Orson B. Adams House and farmstead, located in the White Reef area of the new NCA. The 1860's era native stone house has been restored for public visitation. Six interpretive panels, for use on the interior and exterior of the house, will be produced and installed in 2010.



### **Volunteer Programs**

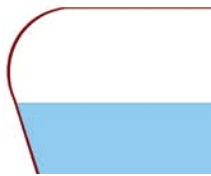
The Red Cliffs NCA currently hosts two group volunteer programs that assist with trail monitoring patrols and monitoring of heritage resource sites. Twenty trained Trail Stewards regularly patrol 68 trails of the NCA, providing the SGFO with information on trail conditions and visitor uses. In FY 09, these volunteers contributed over 1,000 volunteer hours.

Ten trained volunteers from the SGFO-sponsored Color Country Site Stewards conduct monthly site visits to 25 archeological, historical, and paleontological sites in the NCA. They complete site monitoring reports for each visit, giving the SGFO the ability to pinpoint when damage or other changes occurred at each site. In 2009, these stewards donated over 150 hours of volunteer time.

In December each year, approximately 25 volunteers from the local Audubon Society assist with bird counts in the NCA, as part of the month-long St. George Winter Bird Festival, donating approximately 200 hours of volunteer time.

### **Sign Plan**

The Red Cliffs NCA sign plan has not yet been initiated. A portal graphic was developed by the NOC and four portal signs were produced by BLM Rawlins Sign Shop in 2009. These will be installed in 2010, with portal base construction funded with ARRA funding.



## **4. Scientific Research**

### **Cultural Resources**

Data collection was completed at four National Register of Historic Places-eligible properties in the Red Cliffs NCA in FY 09, as mitigation for impacts related to the upgrading of a major power transmission line that traverses public lands in the western portion of the NCA by Rocky Mountain Power. Surface collection of artifacts, testing, and data recovery excavations were completed, with analysis and report preparation to be completed in FY10 by Bighorn Archeological Consultants LLC.

## 5. Partnerships

### Washington County

Washington County, through the 1996 Implementation Agreement for the Washington County Habitat Conservation Plan, assists the SGFO with funding and on-the-ground management of public lands in the Red Cliffs Desert Reserve, of which the Red Cliffs NCA comprises 70% of the land base, to protect Mojave Desert tortoises and other federally-listed or at risk native species. Impacts fees collected by the County are used to pay salaries for a full-time HCP Administrator, Biologist, Field Technician, and a part-time Public Contact specialist employed by Washington County. Through a small Education Center in the Washington County HCP Administrator's Office, the public receives information about native species, and recreation opportunities in the RCDR/NCA. The staff also provides outreach education programs for local schools, civic groups, and media and maintains a RCDR website. The County has previously funded a RCDR Visitor Use map and a field guide, both distributed through the HCP Administrator's Office and the SGFO. The County also funds the Washington County Sheriff's Department to conduct daily law enforcement patrols along primary access roads in the RCDR/ NCA. The County's annual expenditures in 2009 were in excess of \$580,000 for all management activities related to the RCDR/NCA.

### Advisory Committee

There has not been adequate time to plan for or charter a FACA Advisory Committee, although the existing Washington County Habitat Advisory Committee serves many of those same functions for the Red Cliffs Desert Reserve, within which the Red Cliffs NCA comprises approximately 70% of the land base. Establishing partner and Advisory Committee relationships will be pursued during the planning process to develop a new Management Plan for the Red Cliffs NCA.

## Planning and Business Practices

### Planning:

P.L. 111-11 mandated that a Management Plan for the Red Cliffs NCA be completed within 3 years after designation. In May of 2009, the SGFO prepared a Preliminary Pre-Plan that was submitted to WO-210 to help secure 1610 in FY10. A Statement of Work was completed and a contract awarded to Booze, Allen, Hamilton to assist SGFO in the preparation of the NCA Management Plan, as well as a focused plan amendment to the SGFO RMP to address other mandates from P.L.111-11. A *Federal Register Notice of Intent* is slated for publication in April, 2010, with public scoping to follow shortly thereafter. Cooperating agencies for the planning effort to develop the Red Cliffs NCA Management Plan will include Washington County and Mojave County, Arizona. Other entities that will be directly involved in the planning process are: the Shiwvits Band of the Paiute Indian Tribe, the Paiute Indian Tribe of Utah, and the State of Utah's Resource Development Coordination Committee and Public Lands Policy Committee.

Preliminary Planning Issues: Recreation Opportunities; Scientific, Educational, and Research Opportunities; and ACEC nominations

## **Annual Expenditures and Work Years**

Base Funding in FY09: \$50,000

One-Time Flexible Funding in FY09: \$100,000

SGFO initiated recruitment for the following positions for Red Cliffs NCA late in FY 09, with all positions to be filled in FY10. With the exception of the Park Ranger position, all positions shown below will also be shared with the newly-designated Beaver Dam Wash NCA.

NCA Manager (.5 FET)

Park Ranger (1 FTE)

Biologist (.5 FTE)

Outdoor Recreation Planner (.5FTE)

Law Enforcement Ranger (.5FTE)

## **Receipts from Special Recreation Permits: \$8100**

**Report Compiled by:** Dawna Ferris-Rowley, SGFO Asst. FOM; Dave Kiel, Outdoor Recreation Planner

**Report Compilation Time:** 10 hours of staff time were devoted to compilation of this report.