

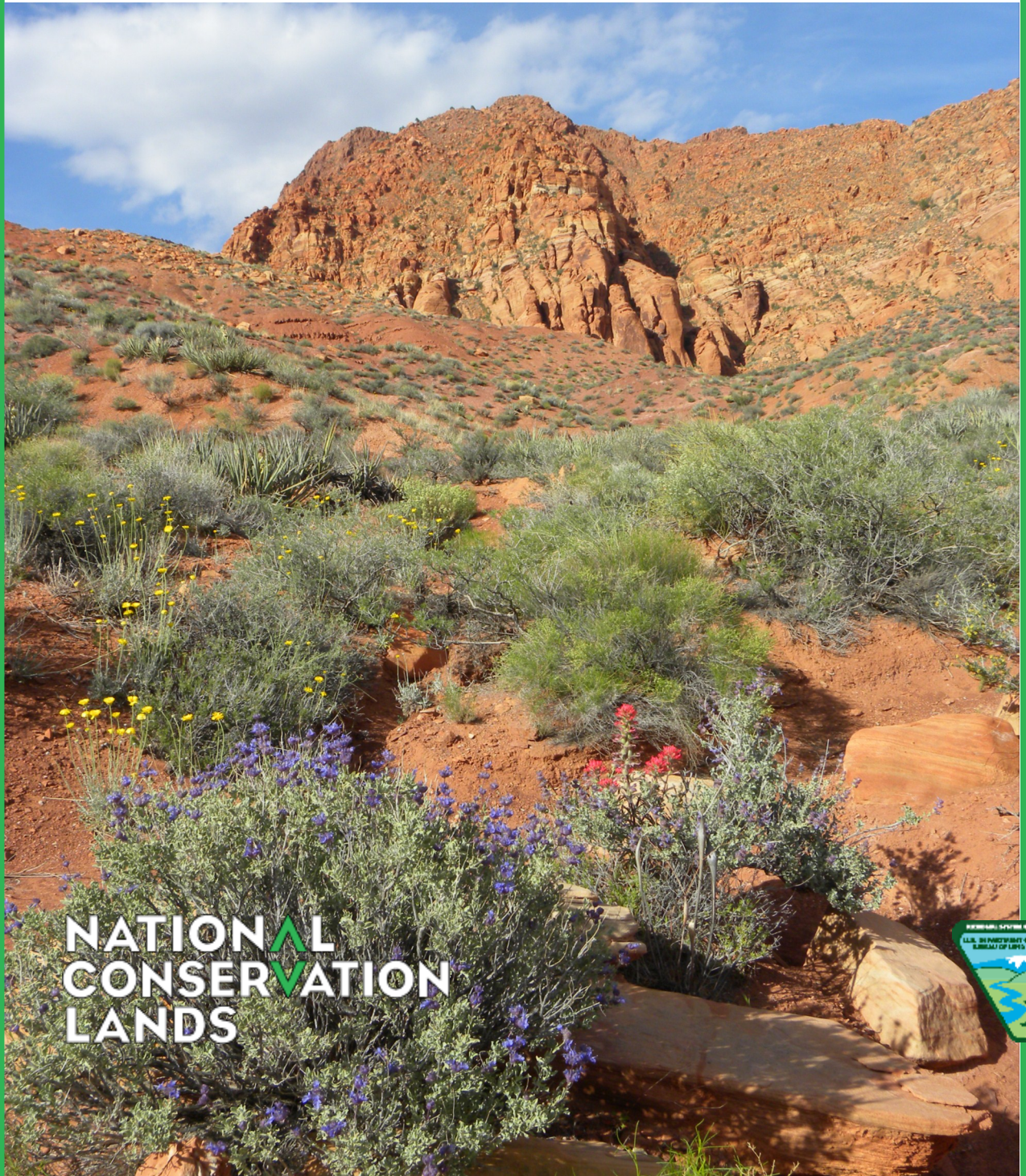
Red Cliffs

National Conservation Area

Manager's Annual Report
FY 2013

2013

Manager's Annual Report



NATIONAL
CONSERVATION
LANDS

Utah



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Red Cliffs NCA Profile

Designating Authority

The designating authority for the Red Cliffs National Conservation Area (NCA) is the *Omnibus Public Land Management Act* of 2009 (Public Law 111-11, hereinafter OPLMA) at Title I, Subtitle O, Washington County, UT, sec. 1974.

Date of Designation: March 30, 2009

Location and Acreage

The Red Cliffs NCA is located entirely within Washington County, Utah and encompasses approximately 44,874 acres of BLM-managed public land. Of that total, approximately 19,989 acres are within two designated Wilderness units, the Cottonwood Canyon Wilderness (approximately 11,668 acres in size, all within the NCA) and the Red Mountain Wilderness (approximately 18,729 acres in total size, of which 8,321 acres are within the NCA). Within the boundaries of the NCA are approximately 2,657 acres of private inholdings and 13,728 acres of land managed by the State of Utah, through the Division of Wildlife Resources, the Division of State Parks, and the State Institutional Trust Lands Administration. The total acreage within the NCA boundaries is approximately 61,259 acres.

Contact Information

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Field Office	District Office	State Office
St. George	Color Country	Utah

Additional information about the NCA can be found at: http://www.blm.gov/ut/st/en/fo/st_george/blm_special_areas/national_landscape/national_conservation/red_cliffs_national.html

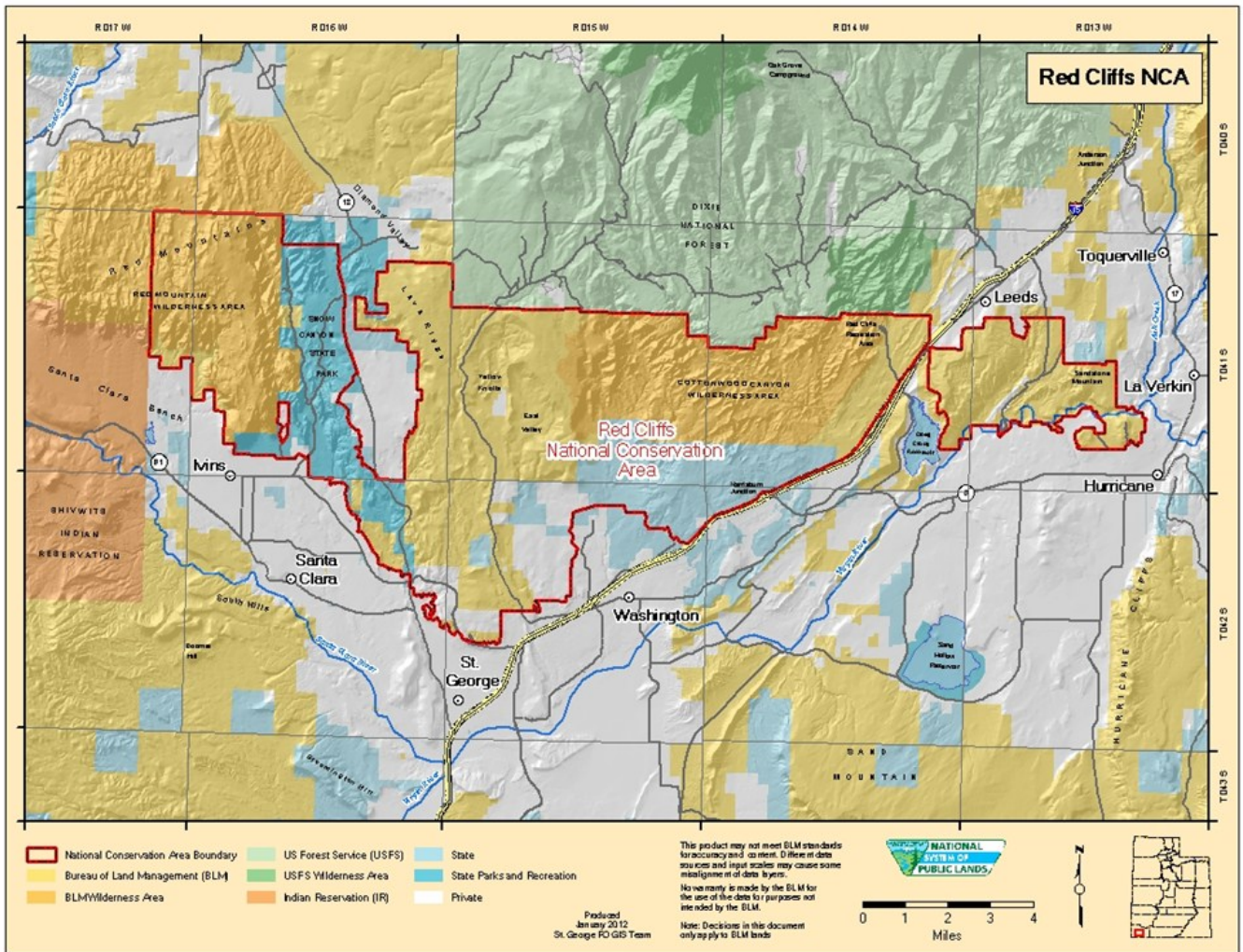


Figure 1. Map of Red Cliffs NCA, showing land status.



Photo 1. Quail Creek in Cottonwood Canyon Wilderness, Red Cliffs NCA.

Staffing

The Red Cliffs NCA shares management and staff with the Beaver Dam Wash National Conservation Area, also located in Washington County, Utah and administered by BLM's St. George Field Office (SGFO). The NCA Manager supervises the positions listed below that comprise the staff for the two NCAs. These same staff provide support to the SGFO, performing work in their areas of expertise on public lands outside of the two NCAs.

Archeologist

Archeological Technician

Biologist

GIS Specialist

Landscape Architect

Outdoor Recreation Planner-2

Park Ranger-2

Administrative, Lands and Realty, Rangeland Management, and Law Enforcement staff from the SGFO complete work in these functional areas for the NCAs. Fire Management, Engineering, and Force Account support for the NCAs is provided by the Color Country District Office, located in Cedar City, Utah.



Photo 2. NCA Park Ranger provides interpretive program to 6th grade students visiting the 1860's Orson B. Adams house in Red Cliffs Recreation Area, located within the NCA.

Planning and NEPA

Status of RMP

The Red Cliffs NCA is currently managed under the goals and management decisions identified in the *St. George Field Office Record of Decision and Resource Management Plan (SGFO RMP, 1999)*, as modified by the designation language of OPLMA, at Subtitle O, Title 1, sec. 1974. Through OPLMA, Congress segregated the public lands of the NCA from entry under the General Mining Law, the Mineral Leasing Act, the Fluid Minerals Leasing Act, and from disposal under the public land laws. It also directed BLM to complete a new comprehensive management plan (RMP) for the long term management of the NCA.

At sec. 1972 of Subtitle O, Congress added the Cottonwood Canyon and Red Mountain Wilderness Study Areas to the National Wilderness Preservation System. Through OPLMA (Subtitle O at sec. 1977), Congress directed BLM to develop a Comprehensive Travel and Transportation Management Plan (TMP) for public lands in Washington County, including the NCA.

In 2010, the SGFO initiated a planning process to prepare RMPs for the Red Cliffs and Beaver Dam Wash NCAs, as well as a focused amendment for the SGFO RMP, also in response to a Congressional mandate from OPLMA. A single Environmental Impact Statement (EIS) is being prepared to support two NCA RMPs and SGFO RMP Amendment. A Notice of Intent (NOI) was published in the *Federal Register* on May 10, 2010 (Vol.75, No. 89: 25876-25877), initiating a 90 day public scoping process that included four public workshops. A Scoping Report was completed in October, 2010 and issues identified through scoping used to develop the range of management alternatives for the draft NCA RMP. The release of Draft NCA RMPs and the Draft Amendment to the St. George Field Office RMP/DEIS is expected in the fall of 2014.

Status of Activity Plans

Comprehensive Travel and Transportation Management Plan

Initial public scoping for the TMP was conducted during the four scoping workshops that were held in June of 2010 for the RMP-level planning efforts. A Scoping Report for the TMP was released in October of 2010; informal scoping with various Federal and State agencies, Tribes, local governments, and public land user groups has been on-going since 2010. Route evaluations have been completed and a range of alternatives drafted for the TMP. A draft TMP/ Environmental Assessment is expected to be released for public comment in early 2015.

Status of RMP Implementation Strategy

As the RMP for this NCA has not been completed, an Implementation Strategy has yet to be developed.

Key NEPA Actions and/or Authorizations

Brome Management

In FY13, a Finding of No Significant Impact (FONSI) and Decision Record were signed authorizing management actions to control exotic invasive brome grasses along four major roadways and at 21 trailheads in the NCA, to reduce the threat of human-caused fires. Native vegetation would be replanted in the treated areas, using drill seeding or tilling to cover native seeds in previously disturbed areas and spray mulches to cover seeds where soil crusts were undisturbed.

An Environmental Assessment (EA-DOI-BLM-UT-CO31-2012-0003) was prepared to evaluate and disclose the environmental consequences of using the pre-emergent herbicide *imazapic* or low impact mechanical methods, such as string trimmers, to control exotic invasive brome grasses within the four road corridors and at selected trailheads. The EA concluded that the proposed action could result in minor, short-term, localized, and direct effects on wildlife and habitats, including the threatened Mojave desert tortoise (*Gopherus agassizii*) and its designated critical habitat. Wildlife would, however, benefit in the long term from re-vegetation of the treatment areas and from the reduced threat of human-caused wildfires. There would be no negative cumulative impacts, as a result of the small scale and localized nature of the proposed actions and potential environmental effects. The EA formed the basis for the FONSI and supported BLM's Decision Record.

Title V Highway Right-of-Way Application Denial

On March 22, 2013, Washington County submitted an application for a 100 foot permanent road right-of-way (ROW) across 1.6 miles of public land in the NCA, under the authority of Title V of the *Federal Land Policy and Management Act of 1976*. The ROW would be used as the location for a new, multi-lane roadway (that would also cross state and private lands) to reduce traffic congestion in the cities of St. George and Washington.

On May 3, 2013, BLM issued a Decision of Denial of Application UTU-89592, based on the agency's analysis that the proposed use of the ROW would be inconsistent with the purposes for which BLM manages the public lands. Management objectives and decisions from the current land use plan for the NCA, the SGFO RMP, provided the basis for determining the purposes for which BLM manages the public lands of the NCA, until a new RMP has been approved.

Under the SGFO RMP, the public lands were identified as a ROW avoidance area, through which new ROWs could be granted only “when feasible alternative routes or designated corridors are not available” (RMP Decision LD-19, page 2.25). The public lands are also within designated critical habitat for the threatened Mojave desert tortoise and critical habitats for all federally-listed species were also identified as a ROW avoidance areas in the SGFO RMP. For these reasons, BLM denied Washington County’s ROW application, as approving this application would not be in conformance with the approved RMP.

On June 5, 2013, Washington County filed a Notice of Appeal with the USDO, Office of Hearings and Appeals, Board of Land Appeals of BLM’s Decision of Denial of Application UTU-89592. A decision by the Interior Board of Land Appeals on the appeal has yet to be rendered.

Business Plan for Red Cliffs Recreation Area

A new Business Plan for the Red Cliffs Recreation Area (Recreation Area), located within the NCA, was completed in FY13, to address needed management changes, including fee increases. The Recreation Area provides a developed campground, day use area, non-motorized trails, and other visitor amenities that satisfy the *Federal Lands Recreation Enhancement Act of 2004* (REA) requirements for the collection of Expanded Amenity Fees and Standard Amenity Fees, through Recreation Use Permits; fees have been collected for use of the Recreation Area amenities since the early 1970s.

The Business Plan described current management and expenditures of collected fee revenues for direct operating and capital costs associated with site management. It proposed increases in the fee rates and identified priorities for expenditures of collected fee revenues to maintain or improve site facilities and services. The Business Plan also identified the incorporation of the adjacent 715 acres of the White Reef Park within the Recreation Area, to facilitate management and increase the number and variety of recreation trails and other amenities available to visitors. It proposed the establishment of White Reef Park as a new fee site, where Standard Amenity Fees would be charged for day use, following completion of the requirements identified in REA to establish new fee sites. The draft Business Plan was made available for a 30 day public review and comment period and provided to the BLM Utah Recreation Resource Advisory Council (RAC) for a similar review in January of 2013. The Utah Recreation RAC voted unanimously in favor of the proposals in the Business Plan, on February 22, 2013, at a RAC meeting in Salt Lake City, UT; the Business Plan was approved by BLM on May 14, 2013.

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Year's Projects and Accomplishments

General Accomplishments

During FY13, the NCA Manager and staff were primarily focused on drafting the NCA RMP and on completing route evaluations for the TMP, to satisfy the legislative planning mandates from OPLMA. A range of management alternatives were drafted for the RMP, in part using data collected from field inventories completed by staff during this fiscal year. These included field inventories to identify and evaluate lands with wilderness characteristics and to map all unauthorized linear disturbances (“social trails”) within the NCA. All roads, routes, and trails within the NCA were evaluated for designation as “open”, “limited”, or “closed”, through the TMP/EA being developed by BLM for all public lands in Washington County.

Current Areas of Focus

Current and future management of the NCA must focus on the need to protect those native vegetation communities that provide forage and shade for the threatened Mojave desert tortoise and other wildlife from further damage or destruction by wild fires. As Mojave Desert vegetation communities, particularly blackbrush (*Coleogyne ramossisima*) shrublands, are not fire-adapted species, recovery after fire may take decades or centuries; recurrent fires can prevent the re-establishment of these native species. Large-scale or frequent wild fires were never part of the natural fire regime of the Mojave Desert. Some desert shrubs, like creosote bush (*Larrea tridentata*), are naturally fire-resistant, while others do not grow in close proximity to one another, maintaining areas of bare ground between plants that impede the spread of fires. Exotic invasive annual brome grasses (*Bromus* spp.) today fill in the gaps between desert shrubs, creating a continuous and highly flammable fuel source that has altered the size, intensity, and return interval of wild fires in the Mojave Desert. When above-average fall and winter precipitation stimulates high brome production, the potential for large-scale summer fires is ever-present. In 2005-2006 alone, approximately 12,300 acres within the NCA were consumed by wildfires; an additional 4,200 acres were damaged by two large fires in 2012. The Reserve Fire in 2012 re-burned areas of the NCA that had previously been burned in fires in 1993, 1998, and 2005, further reducing the likelihood that blackbrush will ever re-establish in these areas. Instead, invasive brome grasses will dominate the re-burned areas, converting them to exotic grasslands that are susceptible to an annual burn-re-burn fire cycle.

Management related to wildfire prevention in the near-term will focus on the development of large-scale firebreaks to protect habitats in the NCA. In March of 2013, BLM partnered with the Washington County Habitat Conservation Plan Administrator's Office to contract a goat herd to graze an 8 mile long firebreak along Cottonwood Road, a heavily traveled roadway through the mid-section of the NCA. Annual brome grasses comprised at least 30% of the roadside vegetation, and, when cured in late spring, could easily “carry” fires ignited by sparks from vehicles or carelessly tossed cigarettes into adjacent areas of unburned habitats, including areas that support some of the highest tortoise densities in the NCA.

As both sides of this road are fenced with a wire mesh that prevents tortoises from accessing the roadsides, there was no risk of tortoises being trampled or their burrows collapsed by the goat herd, as it grazed along Cottonwood Road. A temporary plastic mesh fence was set up by the contractor to keep the animals off the roadway and 100 Boer goats were then turned loose to graze between the road right-of-way fence and the temporary fencing. Herders continually moved the temporary fencing, as the goats ate their way progressively north along both sides of the roadway. At the end of the three week contract period, the goats had effectively created a nearly vegetation-free 100 foot wide, 8 mile long firebreak along Cottonwood Road (see photos below) .

Monitoring plots were then established along the roadsides, to collect data to assist in an evaluation of targeted grazing as fuel reduction method, when compared to other options, such as pre-emergent herbicide applications or low impact mechanical removal.



Photo 4. View of temporary fencing and herders moving goats along Cottonwood Road.



Photo 5. View of vegetation-free fuel break grazed by goats along Cottonwood Road.

Education, Outreach, and Interpretation

Highlights of Education and Outreach

“Day in the Desert” Learning Experiences

NCA staff provided curriculum-based learning experiences for 130 Washington County middle school students during two annual “Day in the Desert” field days, held in the spring and fall, in cooperation with the Washington County School District. Under the direction of resource professionals, students gained “hands-on” experiences, collecting water quality samples, making stone tools, identifying native plants and wildlife, and learning to navigate using GPS units, in the outdoor classroom” of the NCA’s Red Cliffs Recreation Area.



Photos 6 and 7. Students collect water quality samples from Quail Creek, November 2012.

Interpretation

Full color Orientation panels, 2 feet by 3 feet in size, were designed by the NCA Landscape Architect and fabricated for installation in the four-sided roofed metal kiosks that are in place at the five major trailheads of the NCA. Each Orientation panel included a map of the non-motorized trail loops that are accessible from that trailhead, with detailed information about trail distances, difficulty, recommended users, and points of interest. Basic safety and regulatory information are also provided on each panel.

Full-color Wilderness interpretive panels were also designed and fabricated for the kiosks at the White Reef, Cottonwood, and Red Mountain Trailheads. These trailheads serve as the primary access points to the Cottonwood Canyon Wilderness and the Red Mountain Wilderness, respectively.

New interpretive panels were developed for two public use sites in the Red Cliffs Recreation Area. Two full-color panels, 2 feet by 3 feet in size, were created to provide on-site interpretation for 190 million year old dinosaur trackways, located within the campground and easily accessible by a short hiking trail. Three full color interpretive panels of the same size were designed and installed on cantilevered pedestals at an excavated and stabilized 10th century Ancestral Puebloan habitation site, also accessible by a natural surface hiking trail from the campground.

A new brochure was designed and printed for the Red Cliffs Recreation Area, describing the campground, day use areas, and other amenities of this fee site.

Partnerships

The Red Cliffs NCA continues to be supported by the Dixie-Arizona Strip Interpretive Association (D'Asia) and the Southern Utah National Conservation Lands Friends (SUNCLF), through Cooperative Agreements. D'Asia provides volunteers that assist with public contacts and visitor services at the Interagency Public Lands Information Center in St. George, UT. It also hosts weekly public "Brown Bag" programs, featuring guest speakers who provide information on local history, natural and cultural resources, and other topics of interest to the general public.

SUNCLF assists BLM with diverse community outreach, environmental education programs, and volunteer stewardship programs focused on the NCA. As examples, in FY13, SUNCLF supported two "Day in the Desert" field experiences; a winter bird identification hike, and a star-gazing evening, all held in the Red Cliffs Recreation Area of the NCA. It recruits and helps to train volunteer archeological and paleontological site stewards who monitor sites in the NCA and assist the BLM Archeologist and other professional researchers with field inventories and site documentation. SUNCLF provided bottled water and snacks for National Public Lands Day volunteers who assisted BLM to remove graffiti and litter along the popular Red Reef trail in the Cottonwood Canyon Wilderness

Volunteers

Volunteers donated more than 2000 hours of time in resource and trail monitoring and assisted BLM with special projects in the NCA. As examples:

- Trail stewards monitored over 100 miles of non-motorized trails within the NCA, providing information to BLM about trail conditions, visitor numbers, and use-created social trails, donating more than 1000 hours of volunteer during FY13;
- An Eagle Scout candidate organized 30 volunteers to reconstruct the garden fencing and plant vegetables at the Orson B. Adams House, a restored 1860's era pioneer Mormon residence that is interpreted and managed for public visitation.



Photos 8, 9, and 10. Scouts and other volunteers fence and prepare the garden for planting.

Budget

Washington Office Base Funding L1711	
Red Cliffs NCA	\$270,000

Functional Area	Labor	Operations	One-time	TOTAL FUNDING
L1010 - Soil, Water Air	\$4,364	\$375		\$4,739
L1040 - Riparian	\$5,236	\$450		\$5,686
L1050 - Cultural	\$42,802	\$3,375		\$46,177
L1110 - Wildlife	\$5,236	\$450		\$5,686
L1150 - T&E Species	\$19,222	\$1,500		\$20,722
LL1210-Wilderness	\$106,053	\$10,050		\$116,103
L1220 - Recreation	\$54,290	\$4,612		\$58,902
L1430 - Lands & Realty	\$9,743	\$787		\$10,530
L1711 - NM & NCAs	\$194,434	\$16,912	\$14,000	\$225,346
	\$441,380	\$38,512	\$14,000	\$493,892

Land or Easement Acquisitions

No land or easement acquisitions were completed in FY13.

Science

Science

A Science Plan has not yet been formalized for the Red Cliffs NCA. However, opportunities for research that would inform the long-term management of the NCA are identified in the management alternatives that have been drafted for the NCA RMP and are anticipated to be included in a comprehensive Science Plan, after the RMP has been approved. Scientific research that is ongoing or completed in FY13 in the NCA includes the following:

Western Rock Art Research Inventory and Documentation of Rock Art Sites

Western Rock Art Research (WRAR), a 501 (3C) nonprofit organization, in partnership with SUNCLF, was awarded a \$14,000 NLCS Research Support Grant for field inventory and detailed rock art site documentation in the Red Cliffs NCA. The research trained volunteers in the detailed recording methods required for rock art sites and used these volunteers in Class III level field inventories in areas of the NCA identified by BLM as having a high potential for sites to occur. In April and October of 2013, WRAR researchers and volunteers conducted 550 acres of Class III inventories, in the Cottonwood Canyon and Red Mountain Wilderness units and the Yellow Knolls area of the NCA and recorded 36 previously undocumented sites.

Colorado Plateau Archeological Alliance Field Studies

Professional archeologists affiliated with the Colorado Plateau Archeological Alliance, a 501 (3C) nonprofit organization, completed Class III level field inventories covering 1,300 acres in two areas of the NCA and recorded 52 sites, with funding and support provided by The Wilderness Society's BLM Action Center. The field investigations were assisted by trained volunteer crews, including students and faculty from Southern Utah University and BLM's Site Steward Program.

Desert Tortoise Population Monitoring

In May and June of 2013, biologists from the Utah Division of Wildlife Resources (UDWR) conducted desert tortoise population monitoring transects covering approximately 24,000 acres in the NCA. Funding for tortoise monitoring was provided to UDWR by Washington County, as a requirement of the county's Habitat Conservation Plan (1995). Monitoring data indicate that tortoise populations in the NCA appear to be stable, after years of apparent declines due to drought, infectious disease, mortalities, and habitat loss to fires.



Photo 10. Adult Mojave desert tortoise

Resources, Objects, Values, and Stressors

Resource, Object, or Value

The Congressionally-defined purposes for designation of the NCA, as stated in P.L.111-11 at Title I, Subtitle O at section 1974 are:

(1) To conserve, protect and enhance for the benefit and enjoyment of present and future generations the ecological, scenic, wildlife, recreational, cultural, historical, natural, educational, and scientific resources of the National Conservation Area.

(2) to protect each species that is-

(A) located in the National Conservation Area; and (B) listed as a threatened or endangered species....

As Congress did not specifically define a majority of the resource values that give significance to this NCA, and benchmarks have not yet been established through a Science Plan, the following assessment focuses only on those ecological values currently being monitored in the NCA.

Ecological Values: Upland Native Vegetation Communities

The NCA is within a transition zone between the Mojave Desert, Great Basin, and Colorado Plateau ecoregions. The ecological health, or Ecological Departure from the Natural Range of Variability (NRV) , for the eight distinctive upland vegetation communities of the NCA was evaluated in 2011, through a Landscape Conservation Forecasting Process, completed in partnership with The Nature Conservancy. The tables below display FY13 monitoring data.

Upland Native Vegetation Status and Trend Table

Status of Resource, Object, or Value	Trend
FAIR– all communities are 100% departed from the NRV, due to exotic annual brome grasses, forbs, and woody species.	Stable in unburned areas (21,000 acres) Declining in fire-damaged areas (13,000 acres)

Upland Vegetation Inventory, Assessment, and Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object(Acres Monitored
44, 874	Creosote—3,043	Creosote—3,043	Creosote— 2,000
	Blackbrush-22,265	Blackbrush—22,265	Blackbrush—22,000
	Pinyon-Juniper—3,719	Pinyon-Juniper—3,719	
	Mountain Shrub- 4	Mountain Shrub-4	
	Big Sagebrush-3,061	Big Sagebrush-3,061	
	Warm Season Grassland— 118	Warm Season Grassland-118	
	Desert Sand Sage—1,586	Desert Sand Sage—1,586	

Stressors Affecting this Resource, Object, or Value

Wild fires, exotic invasive annuals, and predicted climate changes that benefit invasive species are the primary stressors affecting upland vegetation communities in the NCA. Late successional blackbrush formerly covered nearly 65% of the NCA land base. Over the past 20 years, wild fires fueled by exotic brome grasses have burned or re-burned a majority of this community; many re-burn areas have been converted to annual grasslands. This community will not re-establish as a mature shrubland for centuries, if ever.

Resource, Object, or Value

Ecological Value: Montane Riparian, Warm Desert Riparian and Riparian Wash Vegetation

Riparian vegetation occurs in three environmental contexts (montane, warm desert, and riparian washes) in the NCA and was mapped at a detailed scale in 2011 during the Landscape Conservation Forecasting Process, with The Nature Conservancy. Species that typify the riparian communities include mesquite, native willows, and Fremont’s cottonwood; montane Riparian areas include velvet ash, native willows, and cottonwood, but lack mesquite.

Riparian Vegetation Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair– Ecological Departure from NRV from 90-100%, due to recent flooding events and infestations of exotic species.	Stable

Riparian Vegetation Inventory, Assessment, and Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
44,874	Montane Riparian-40	Montane Riparian-40	Montane Riparian-40
	Warm Desert Riparian-160	Warm Desert Riparian-160	Warm Desert Riparian-160
	Riparian Wash-402	Riparian Wash-402	Riparian Wash-402

Stressors Affecting this Resource, Object, or Value

Climate changes that include higher summer temperatures, more frequent and prolonged drought periods, and intensive precipitation events that cause flash flooding are the primary stressors that are currently affecting riparian vegetation communities. Infestations by exotic invasive species, in particularly salt cedar, currently affect the ecological health of many riparian areas. Big reed (*Arundo donax*) is an exotic species that has been mapped along the Virgin River in the NCA; infestations are currently being eradicated through an ongoing partnership with other federal and state agencies that participate in the Virgin River Recovery Program.

Resource, Object, or Value

Ecological Value-Mojave desert tortoise critical habitat

The Mojave desert tortoise (*Gopherus agassizii*) is a threatened species that was listed in 1990 under the protection of the Endangered Species Act and critical habitat designated in 1994. Tortoises are found in the NCA, primarily in the creosotebush-white bursage and blackbrush communities, although the boundaries of its designated critical habitat extend into upland areas that include big sagebrush steppes and pinyon-juniper woodlands.

Designated Critical Tortoise Habitat Status and Trend Table

Status	Trend
FAIR– vegetation communities are 100% departed from the NRV, due to exotic annual brome grasses.	Stable in unburned areas (12,300 acres) Declining in fire-damaged areas (13,000 acres)

Designated Critical Tortoise Habitat Inventory, Assessment, and Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
44,874	30,256	25,308	24,000

Stressors Affecting this Resource, Object, or Value

Wildfires, exotic invasive annuals, and predicted climate changes that benefit invasive species are the primary stressors affecting tortoise habitat. Blackbrush communities are the most flammable of all native Mojave Desert communities and approximately 50% of this community in the NCA has been damaged by recent wild fires. As this shrub is very slow growing, and requires other plants as “nurse” or shade plants during initial growth stages, it will be centuries before blackbrush communities are re-established in the NCA, if ever. Other native vegetation communities that comprise habitat for desert tortoises, such as the creosote-white bursage or desert sand sage communities, have not been extensively damaged by recent wild fires, but remain at risk. Invasive annual grasses are present throughout these communities and will fuel and carry destructive wildfires, even in these more naturally fire-resistant vegetation types.

Resource, Object, or Value

Ecological Value: Critical Habitat for Shivwits Milkvetch (*Astragalus ampullariodes*)

This small native plant is found only in Washington County, with six populations known, two of which are located within the NCA. It has very specific habitat requirements, growing only in the purple-hued, gypsum rich soils and primarily in the creosote bush-white bursage community. The Shivwits milkvetch is listed as an endangered species and critical habitat designated in 2006.

Shivwits Milkvetch Designated Critical Habitat Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair– habitat 100% departed from NRV due to invasive brome grasses.	Stable , at risk of loss to wildfires

Shivwits Milkvetch Critical Habitat Inventory, Assessment, and Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored
44,874	3,000	422	422

Stressors Affecting this Resource, Object, or Value

Exotic invasive annuals and predicted climate changes are the primary stressors on designated critical habitat for Shivwits milkvetch in the NCA. This habitat is primarily located in the creosote-bursage community, which has not been damaged by recent wild fires, but remains at risk because invasive annual grasses are present throughout this community and will fuel fires that start even in naturally-fire resistant vegetation types. Recent climate change modeling scenarios conducted for nearby Zion National Park (Slovic and Thoma 2011) indicate that predicted increases in ambient air temperature could impact the survival of the Shivwits milkvetch and other endemic native plant species whose habitats are localized to specific soil types with limited geographical distributions.

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Summary of Performance Measures

The 2013 Manager’s Report provides reporting tables that are focused primarily on ecological values and the health of land. Data and evaluations of status and trend for key ecological values are provided below, but clearly do not reflect all the resources, objects, and values that are identified, evaluated, and monitored by BLM in the NCA. Inventories, data collection, and monitoring are conducted each year for archeological and paleontological resources, for caves and karsts, for Wilderness areas, and for recreational uses. Data on these resources and values are also reported annually as Performance Measures, but not in the same units of measure as requested by the tables in this report.

Summary Table

Resource, Object, or Value	Status	Trend
Native upland vegetation	Fair– departure from NRV due to exotic invasive species	Stable in unburned areas Declining in burned areas
Riparian vegetation	Fair-departure from NRV related to recent flooding and exotic species infestations	Stable or improving
Mojave desert tortoise critical habitat	Fair-departure from NRV due to exotic invasive species and effects of wildfires	Stable in unburned areas Declining in burned areas
Shivwits milkvetch critical habitat	Fair-departure from NRV due to exotic invasive species	Stable, but at risk of loss to wildfires

Manager's Letter

Dear Friends of the Red Cliffs NCA;

The Manager's Annual Report highlights just a few of the projects and activities conducted to conserve and protect the resource values in the Red Cliffs NCA in FY13. Our efforts were furthered by contributions from many dedicated volunteers, community partners, researchers, and members of the public who support the purposes for which this NCA was designated by Congress in 2009.

Over the next three years, we will be focused on completing the legislatively-mandated Resource Management Plan and Comprehensive Transportation and Travel Management Plan for the NCA. We will also be completing a Wilderness Management Plan for the Cottonwood Canyon and Red Mountain Wilderness areas. While these planning efforts will continue to require considerable management and staff time and effort, they are key to the long-range conservation, protection, and enhancement of the NCA resources and values. As Major League Baseball great Yogi Berra once said: "If you don't know where you are going, you'll end up someplace else" ...

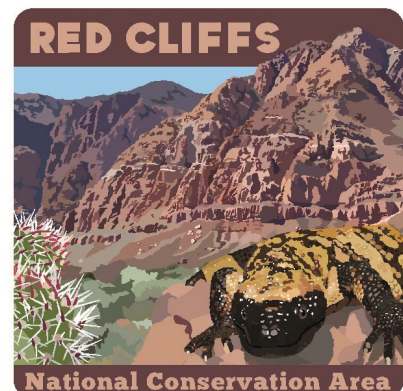
We will also strive to:

- Support SUNCLF in its efforts to increase public awareness and provide opportunities for volunteers to assist with projects and programs that further the purposes of the NCA;
- Work with current partners, like The Nature Conservancy and Washington County HCP Administrators Office, to create fuel breaks and control exotic invasive brome grasses, to protect unburned areas of native vegetation and critical habitats for native species in the NCA;
- Develop new partnerships with local universities and high schools to involve students in the cultivation of native forbs, perennial grasses, and shrubs for use in NCA restoration projects;
- Support research studies that will improve our management strategies for the public lands, through increased scientific understanding of the NCA resources and values.

We invite all of you to become citizen stewards of the public lands of the Red Cliffs NCA.

Sincerely,

Dawn Fern Bonky





NATIONAL CONSERVATION LANDS

Red Cliffs

National Conservation Area

Bureau of Land Management

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