



**NATIONAL
CONSERVATION
LANDS**

Utah

Red Cliffs

National Conservation Area

Annual Manager's Report—Fiscal Year 2014

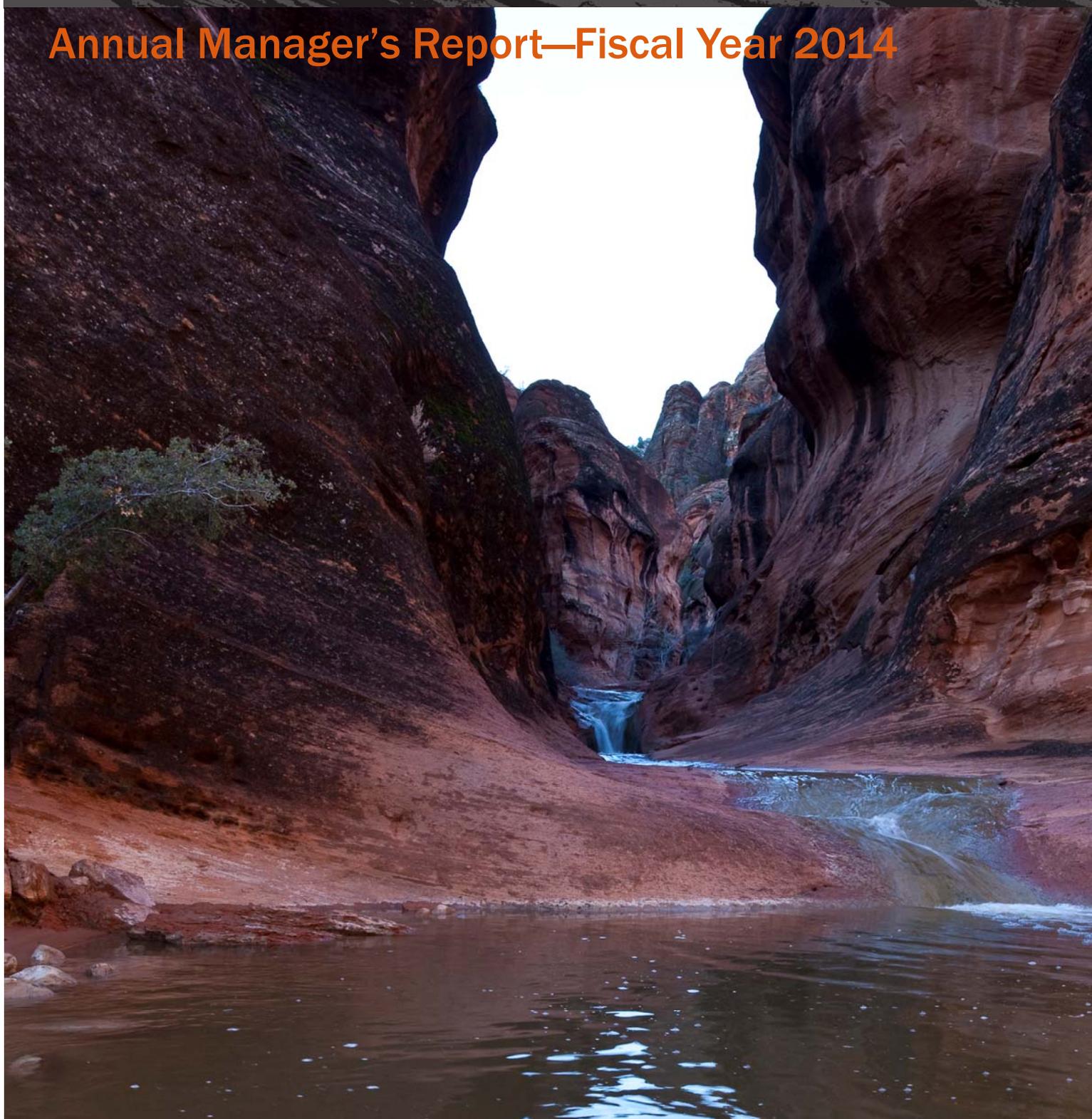


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1 Red Cliffs Profile

Designating Authority

Designating Authority: Omnibus Public Land Management Act of 2009 (Public Law 111-11, hereinafter OPLMA)

Date of Designation: March 30, 2009

Acreage

Total Acres in Unit 44,825

BLM Acres 44,825

Other Federal Acres 0

State and Private Acres* 16,385

*State and Private acres are not part of the total of the unit acres

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Budget

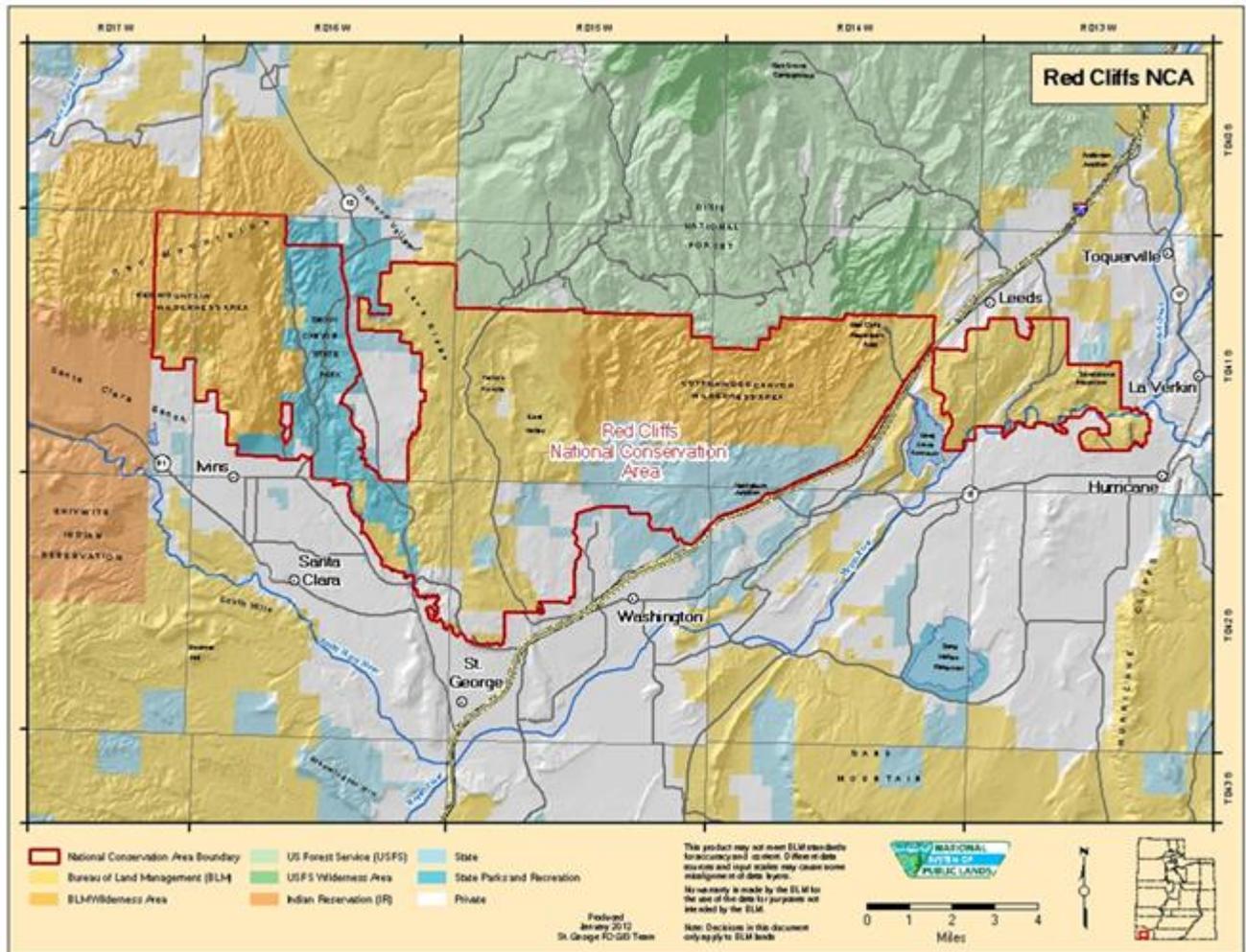
Total Fiscal Year 2014 Budget \$5,832,000

Subactivity 1711 \$270,000

Other Subactivities' Contributions \$287,000

Other Funding \$5,275,000

Map of Red Cliffs National Conservation Area



Map depicting land status in Red Cliffs NCA, Red Mountain Wilderness and Cottonwood Canyon Wilderness.

Managing Partners

The Red Cliffs National Conservation Area (NCA) does not currently have established partnerships to assist with the management of the unit.

Staffing

The Red Cliffs NCA shares permanent management and staff with the Beaver Dam Wash NCA and the St. George Field Office (SGFO). The NCA Manager supervises the following positions that are organizationally aligned only to the Red Cliffs NCA: Archeologist; Archeological Technician; Biologist; GIS Specialist; Landscape Architect; two Outdoor Recreation Planners, and two Park Rangers. These positions work in their areas of

expertise within both NCAs and on public lands outside of the NCAs. The amount of staff time that is devoted to work in the NCAs varies by annual workload targets and job duties. The NCA Biologist is assigned collateral duties as the NEPA Coordinator for the NCAs and the SGFO. The NCA Landscape Architect provides design support to all programs and functions as the Contracting Officers Technical Representative for multiple construction and service contracts for the NCAs and SGFO. This position also oversees the development of all multi-media interpretive products (e.g., website content, brochures, and panels) for the NCAs and SGFO. One of the NCA Outdoor Recreation Planners is currently the project lead for completion of the OPLMA-mandated Comprehensive Travel and Transportation Management Plan for public lands in Washington County. The NCA Manager, GIS Specialist, Biologist, Landscape Architect, and Outdoor Recreation Planner comprise the core Planning Team for the development of the OPLMA-mandated Resource Management Plan (RMP) and Environmental Impact Statement (EIS) for the NCA.

Administrative Support, Lands and Realty, Rangeland Management, and Law Enforcement staff that are organizationally aligned to the SGFO also work in these functional areas for the NCA. Fire Management, Engineering, Budget, and Force Account support for the NCA is provided by the Color Country District Office, located in Cedar City, Utah.

The NCA and SGFO management and staff are co-located in an interagency Public Land Information Center Office in St. George, UT with the BLM-Arizona Strip District Office, the Arizona Strip Field Office, the Vermillion Cliffs National Monument, and the Grand Canyon-Parashant National Monument, jointly managed by BLM and the National Park Service (NPS). Visitor services and public contacts are provided through interagency Public Contact specialists. The Dixie-Arizona Strip Interpretive Association (DASIA) supports the management of the interagency Information Center, providing volunteers and DASIA staff to assist with public contacts.

2 Planning and NEPA

Status of the Resource Management Plan

The NCA is currently managed under decisions from the St. George Field Office Record of Decision and Resource Management Plan (RMP, approved in 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, subject to any valid existing rights, and from disposal under the public land laws. It also directed BLM to develop a comprehensive management plan (RMP) for the long term management of the NCA.

In 2010, the SGFO initiated a planning process to prepare RMPs for Red Cliffs and Beaver Dam Wash NCAs, as well as a focused amendment for the SGFO RMP, to be supported by a single Environmental Impact Statement (EIS). A Notice of Intent 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; the issues identified through scoping helped to guide the development of management alternatives for the draft RMPs. The Draft NCA RMPs and Draft SGFO RMP Amendment/Draft EIS are scheduled to be released for a 90 day public review and comment period in the spring of 2015. Public information meetings will be held during the 90 day public review period in St. George, Hurricane, and Salt Lake City, Utah.

Status of Activity Plans

In 2009, OPLMA designated two wilderness areas that are located partially and entirely within the NCA boundaries. Approximately 8,321 acres of the Red Mountain Wilderness are within the NCA, while the Cottonwood Canyon Wilderness (11,668 acres in size) is entirely within the NCA. The NCA staff began an activity-level planning process in FY 2011, to develop a single Wilderness Management Plan for the two Wilderness areas, because of their geographic proximity and location within the NCA. A 60 day public scoping period was initiated through a newsletter, media releases, and website postings. Other federal agencies, Tribes, state and local governmental entities and the public were invited to identify issues and provide comments to be considered during the development of the plan. A public workshop was held in St. George, Utah on April 19, 2011, at which the public was given information about the wilderness values of the two areas and the legal requirements for management of designated wilderness under the Wilderness Act and OPLMA. A draft Wilderness Management Plan for the Cottonwood Canyon and Red Mountain Wilderness areas, supported by an Environmental Assessment (EA), is expected to be released for public review in FY 2015.

Comprehensive Travel and Transportation Management Plan

At sec. 1979, OPLMA directed BLM to complete a Comprehensive Travel and Transportation Management (TMP) for public lands in Washington County. The TMP will make route designations for motorized vehicle travel in the NCA. Initial public scoping for the TMP was conducted during the four scoping workshops that were held in June of 2010, in conjunction with scoping for the RMP-level planning efforts. A TMP Scoping Report was completed in October, 2010; issues identified through scoping helped to guide the development of management alternatives for the draft TMP. Informal scoping with various Federal, State, Tribal, local government entities and diverse public land user groups has been on-going since 2010.

Evaluations have been completed for all routes in Washington County (2800 miles), including those within the NCA, and a range of four management alternatives developed for the TMP. Washington County, a Cooperating Agency to this planning process, is currently reviewing and providing comments on the alternatives. The draft TMP and EA are scheduled to be released for public review in 2015.

Status of the RMP Implementation Strategy

As an RMP for the NCA has not yet been approved, an RMP Implementation Strategy has not been developed.

Key National Environmental Policy Act Actions and/or Project Authorizations

Deferred Maintenance and Capital Improvements Projects, Red Cliffs Recreation Area

An EA was completed by NCA staff to disclose the potential environmental impacts that might result from deferred maintenance activities and the construction of capital improvement projects in the campground and day use areas of the Red Cliffs Recreation Area (Recreation Area). The Recreation Area is located within the NCA and includes a 12 site developed campground, day use area, non-motorized trails, interpreted archeological, historic, and paleontological sites, and other visitor amenities. It satisfies the Federal Lands Recreation Enhancement Act of 2004 (REA, as amended) requirements for the collection of Expanded Amenity Fees and Standard Amenity Fees, through Recreation Use Permits.

The purposes for the projects were to enhance visitor safety, improve the quality of visitor experiences, and protect public land resource values. Capital improvements included two vehicle bridges over Quail Creek, one 75 feet in length and one 25 feet in length; a new paved parking area with two accessible spaces, to accommodate approximately 20 vehicles; expanded parking at two existing parking areas, to accommodate approximately 11 vehicles; an accessible picnic site and associated accessible route; and a 107 square foot visitor contact station, located on the Red Cliffs Road (the Recreation Area's main access road). A Finding of No Significant Impact was made based on the analysis of the EA

and a Decision Record signed by the NCA Manager on April 4, 2014, authorizing the deferred maintenance actions and capital improvement projects.

Programmatic Environmental Assessment for Integrated Weed Management Program

During FY 2014, SGFO staff began work on a Programmatic Environmental Assessment to address control noxious weeds and non-native invasive species for the NCA and other public lands managed by BLM in Washington County. When completed, this programmatic assessment will allow the implementation of an integrated weed management program, including the use of herbicides that are approved for public lands, to control and ultimately eradicate noxious weed infestations and non-native invasive species. Reductions in the biomass of invasive annual species, like cheatgrass (*Bromus tectorum*) and red brome (*Bromus rubens*) are considered critical to the prevention of catastrophic wildfires in Mojave Desert native vegetation communities, as these are not fire-adapted communities. Invasive annual grasses fuel and carry wildfires, regenerating more successfully after fires than do the native shrubs, forbs, and grasses.

3 Year's Projects and Accomplishments

General Accomplishments

Non-Market Values Analysis

During this fiscal year, economists at BLM's National Operations Center, in partnership with economists from the U.S. Geological Survey and Colorado State University, prepared a Non-Market Values Analysis for the Red Cliffs NCA, using the NCA as a Pilot Study Site. Historically, the role of economics in BLM's planning efforts has generally focused on the market impacts of resource uses, such as mineral extraction, livestock grazing, and recreation. These market impacts do not reflect all of the values that members of the public hold for all resource uses and environmental services. Nonmarket environmental values (or "nonmarket values") reveal the benefits individuals attribute to experiences of the environment, uses of natural resources, or the existence of particular ecological conditions that do not involve traditionally understood market transactions and, therefore, lack prices. The consideration of nonmarket values leads to more informed decision-making by creating a more holistic picture of the economic implications of resource tradeoffs. This analysis has been incorporated into the Socio-Economic Analysis for the Draft NCA RMP/Draft EIS.

Participation on Recovery Implementation Teams for Mojave Desert Tortoise

The NCA Biologist participated on the Recovery Implementation Team (RIT) for the Upper Virgin River Recovery Unit, established by the USFWS through the revised Recovery Plan for the Mojave desert tortoise (*Gopherus agassizii*), released by the USFWS in 2011). The desert tortoise has been a federally-listed threatened species since 1990, with critical habitat designated in 1994 and Recovery Units identified across the Mojave Desert, from California to southern Utah, north and west of the Colorado River.

The Red Cliffs NCA is located within the Upper Virgin River Recovery Unit, the smallest of all the Recovery Units, and supports some of the highest tortoise population densities found anywhere in the range of this species. Approximately 30, 256 acres of the NCA are designated critical habitat for the desert tortoise.

The RITs for each Recovery Unit were constituted by the USFWS and included land managers, representatives of local governments and Tribes, and members the scientific and conservation communities. Each RIT was tasked to work with the USFWS on the planning, implementation, tracking, and evaluation recovery actions needed to assist the recovery and delisting of the Mojave desert tortoise. During this fiscal year, the Upper Virgin River Recovery Unit RIT worked on the prioritization of threats to desert tortoise and critical habitat in this unit and the identification of actions needed to reduce the threats. The RIT developed a Recovery Action Plan that identified the prevention of wildfires, reduction of exotic brome grasses, and the restoration of damaged habitat as the highest priorities for funding and implementation across all jurisdictional boundaries in this Recovery Unit.

Deferred Maintenance and Capital Improvements, Red Cliffs Recreation Area



ACE crews build gabion baskets to support fence posts.

During this fiscal year, deferred maintenance and capital improvement funds totaling \$1,275,000 were obligated through two competitive bid construction contracts and work begun on multiple projects under these contracts in the Recreation Area. Deferred maintenance work was focused on the replacement of shade shelters, stairways, walkways, fire pits, and other facilities that had outlived their useful lives in the campground and day use area. To bring the ADA accessible facilities into compliance with current standards, a new

accessible day use area constructed.

Other deferred maintenance work involved the removal of dry-rotted wood ramada roofs and a boardwalk from the excavated, stabilized, and interpreted 10th century Ancestral Puebloan site in the Recreation Area. Youth crews provided through a Cooperative Agreement with the American Conservation Experience (ACE) hauled rocks, installed new protective fencing around the exposed storage rooms and cists, and created new natural surface walk paths.

Capital improvements included the construction of a small Visitor Contact station on the Red Cliffs Road (main access road) and two vehicle and pedestrian span bridges over Quail Creek, to replace low water crossings that posed public safety hazards during flash flood events on the Red Cliffs Road, the only paved road in and out of the Recreation Area. Other improvements included the construction of additional day use parking and a new accessible picnic area. A new non-motorized trail was constructed, using trail crews provided by ACE, to create a connector trail between the White Reef trail system and the popular Red Reef trail.

Invasive Species Management along Cottonwood Road and the Virgin River

During November of 2014, BLM used targeted herbicide applications to control exotic invasive annual grasses (*Bromus* spp) along approximately 11 miles of Cottonwood Road, one of the most heavily traveled routes through the heart of the NCA. Imazapyr (aka "Plateau"), a pre-emergent herbicide approved for use on public lands, was applied at the appropriate dilution rate along the fenced road shoulders of Cottonwood Road by the NCA

Biologist, using UTV-mounted sprayer. This project was designed to reduce brome infestations and enhance the effectiveness of the fuel break created by Cottonwood Road, to provide greater protection from wildfires for tortoise populations and critical habitat in the NCA.

Through a partnership with the Virgin River Recovery Program, infestations of Giant Reed (*Arundo donax*) were treated at multiple locations along approximately 6 miles of the Virgin River through the NCA, by an initial hand cutting of the plants and subsequent foliar spraying of new growth with a mixture of Imazapyr, Glyphosate and a surfactant, using a backpack sprayer. Control of these infestations will improve the quality of aquatic habitat for native fish of the Virgin River system, many of which are currently listed as threatened or endangered species, due to habitat loss or degradation.

Lands with Wilderness Characteristics Inventory and Evaluation

The NCA Outdoor Recreation staff, assisted by ACE Resource Associates, completed nearly 25,000 acres of field inventories to identify lands with wilderness characteristics in the NCA and prepared the technical reports to document the evaluations. Data from these reports were used in the development of management alternatives for the draft RMP and supported the Environmental Consequences analysis.

Estimated Number of Visits in FY 2014: 122, 489

Estimated Number of Visitor Days in FY 2014: 46,477



Panoramic view of the Red Cliffs NCA.

Current Areas of Focus

During FY 2014, the NCA Manager and staff continued to prioritize the development of the Draft RMPs for the Red Cliffs and Beaver Dam Wash NCAs/Draft EIS. Administrative review drafts were provided to the three Cooperating Agencies (Washington County, Utah; Mojave County, AZ, and the State of Utah); the BLM Utah State Office and Washington Office for review. Revisions were made to the drafts based on comments received from the reviews. The development of approved RMPs for each NCA will continue to require substantial commitments of management and staff time over the next two years.

Completion of the OPLMA-mandated Comprehensive Travel and Transportation Management Plan for public lands in Washington County also has been and will continue to be a high priority of the NCA management and staff, as route designation has the

potential to impact all resource management programs and land uses. The release of the draft TMP is expected to generate considerable public interest and potential controversy. Approval of the TMP and implementation of route designations will require substantial commitments of management and staff time over the next two years.

IBLA Remand of BLM Decision to Deny Title V Highway Right-of-Way Application

Washington County's appeal of BLM's decision to deny the county's application for a FLPMA Title V right-of-way (ROW) to construct a multi-lane highway (that would also cross state and private lands) across approximately 1.6 miles of public land was upheld by an Administrative Law Judge at the Interior Board of Land Appeals.

On March 22, 2013, Washington County submitted an application under the authority of Title V of the Federal Land Policy and Management Act of 1976 for a right-of-way (ROW) to construct this new roadway. 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.

The decision by the BLM Manager was set aside by Administrative Law Judge Roberts and the case remanded back to BLM for further adjudication on August 18, 2014 (IBLA 2013-173). Washington County withdrew its application for the Title V ROW on October 14, 2014 and no further action has been taken on this matter.

Education, Outreach, and Interpretation

"Day in the Desert" Learning Experiences

NCA staff provided curriculum-based learning experiences for 100 Washington County middle school students during two "Day in the Desert" field days, held annually in the spring and fall, in cooperation with the Washington County School District. Under the direction of BLM and other agency resource professionals, students gained "hands-on" field experiences, collecting water quality samples, making stone tools, identifying native plants and wildlife, and learning to navigate using GPS units.

Public Information Center Brown Bag Programs

Weekly "Brown Bag" programs are available to the public on Fridays at noon in the interagency Public Information Center and feature BLM staff and guest speakers who provide information on local history, natural and cultural resources, and other topics of interest to the general public. In FY 2014, one of the weekly Brown Bag programs highlighted the non-motorized trail system and climbing areas of the NCA and the recreation amenities of the Red Cliffs Recreation Area. Researchers from Western Rock Art Research presented two Brown Bag programs, describing the archeological inventories

that they were conducting in the NCA and the Red Mountain Wilderness and the results of these field surveys.

BLM-UTAH Wilderness Videos Series

The Red Mountain and Cottonwood Canyon Wilderness areas were featured in a series of videos produced by BLM-Utah State Office, as part of public education and outreach in celebration of the 50th anniversary of the Wilderness Act. Interviews were filmed with equestrians, hikers, and commercial SRP permit holders in the two wilderness areas, as they described their uses of wilderness and the benefits that they derive from these protected landscapes.

Historic Orson B. Adams House and Farmstead Interpretive Programs

The NCA Park Rangers and volunteer Docents continued to provide interpretive programs for visitors at the historic Orson B. Adams house and farmstead in the Red Cliffs Recreation Area. The Adams house, constructed in the early 1860s, and surrounding mid-19th century agrarian landscape offer opportunities to interpret the history of the Adams house and the role that its owners played in local history. Approximately 300 visitors attended these programs in FY 2014.

Partnerships

Partnerships with the Dixie-Arizona Strip Interpretive Association (DASIA), the Southern Utah National Conservation Lands Friends (SUNCLF), and the American Conservation Experience (ACE), through Cooperative Agreements, enhanced BLM's capacity to effectively conserve and protect the resource values of the NCA. DASIA provided staff to collect RUP envelopes and tally fees for the Red Cliffs Recreation Area and volunteers for at the interagency Public Lands Information Center in St. George.

The American Conservation Experience provided youth work crews that assisted with deferred maintenance projects, trail realignments and repairs, and the construction of a new non-motorized connector trail in the Red Cliffs Recreation Area. Resource Associates were also recruited by ACE to assist with inventories of lands with wilderness characteristics in the NCA during FY 2014.

SUNCLF assisted BLM with many types of environmental education programs and community outreach focused on the NCAs and other National Conservation Lands. During FY 2014, SUNCLF staff instructed students on native plant and aquatic invertebrate identification, during the annual "Day in the Desert" field days. Staff and volunteers worked with BLM staff to host special events in the Red Cliffs Recreation Area, including evening programs featuring Native American Campfire Stories and Winter Stargazing. This organization helped to organize and promote an interagency Wilderness Festival, held in Hurricane, Utah in April, as part of local activities to celebrate the 50th Anniversary of the Wilderness Act.

SUNCLF also provided invaluable support in the fostering of volunteerism and citizen stewardship of NCA resource values. It recruited and assisted BLM to train volunteer site stewards who monitored archeological and paleontological sites and worked with professional researchers to complete field inventories and site documentation in the NCA. SUNCLF tracked and reported volunteer hours to BLM and hosted special recognition events for volunteers.

In FY 2014, SUNCLF worked with the NCA Park Rangers to establish of a new Wilderness stewardship program to involve volunteers in monitoring and resource data collection for the Red Mountain and Cottonwood Canyon Wilderness areas, as well as for the 13 designated wilderness areas that are managed by the SGFO outside of the NCA. SUNCLF staff recruited 25 volunteers, assisted BLM with their training, tracked volunteer hours, and submitted volunteer monitoring reports to BLM.

Volunteers

Volunteers donated more than 1,500 hours of time in resource and trail monitoring and assisted BLM with special projects in the NCA during this fiscal year. 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 800 hours of volunteer time;
- Wilderness stewards monitored visitor use and cleaned up litter in the Cottonwood Canyon and Red Mountain Wilderness areas, donating more than 50 hours of volunteer time;
- Five volunteer site stewards donated more than 280 hours, assisting researchers from the Western Rock Art Research to conduct Class III archeological inventories and document rock art sites in the Red Mountain and Cottonwood Canyon Wilderness areas.
- Volunteer docents at the historic Orson Adams house donated more than 100 hours of time, providing tours of the Adams farmstead and assisting with the planting and weeding of the vegetable garden.
- Members of the Southwest Chapter of the Backcountry Horsemen of Utah (BCHU) donated over 300 hours of volunteer time, assisting BLM with a number of special projects in the NCA. In March of 2014, volunteers from BCHU provided saddle stock to pack extra water, tents, and field gear in and out of the Red Mountain Wilderness, to assist the archeologists from Western Rock Art Research who were conducting Class III inventories in the wilderness. Being able to establish a base camp allowed the researchers to efficiently and safely complete inventories in Red Mountain Wilderness.
- On May 27-29, six volunteers from the Southwest Chapter of BCHU provided saddle stock and mules to assist BLM-Utah State Office media specialists with a special

video project in the Red Mountain Wilderness, to commemorate the 50th Anniversary of the Wilderness Act. Three BLM staff rode into the Red Mountain Wilderness on horses provided by BCHU members. The mules donated by volunteers packed in water, camping gear, and camera equipment for the BLM staff. The three BLM staff camped overnight, filmed their experiences and interviews with BCHU members and others about their use of wilderness; the video series was posted on BLM social media sites.

- The Southwest Chapter of BCHU also assisted BLM at an interagency Wilderness Festival, held on April 25th, at Confluence Park in Hurricane, UT. Members provided demonstrations of stock packing and “Leave No Trace” principles to the more than 200 participants at the event.

Land (or Interests in Land) Acquisitions

Funds totaling \$4,000, 000 were received from the Trust for Land and Water Conservation and used to acquire two parcels, totaling 28.65 acres of private inholdings and associated easements, at fair market value in the NCA.

4 Science

Science Plan

A Science Plan has not yet been developed for the NCA, but one will be completed following approval of the RMP. Opportunities for research studies that would increase the understanding of ecological processes and the natural and cultural resource values of the NCA are identified under the management alternatives that have been developed for the draft RMP. These opportunities and others will form the basis for the Science Plan.

Western Rock Art Research Inventory and Documentation of Rock Art Sites

In FY 2014, volunteer support and non-federal funding obtained by SUNCLF allowed the expansion of archeological research studies by Western Rock Art Research that were initially funded through an NLSC Research Support grant. Class III field inventories were again conducted in the Red Mountain and Cottonwood Canyon Wilderness areas and elsewhere in the NCA with a high potential for the occurrence of rock art sites. In 2014, 775 acres of were inventoried by researchers and volunteers at Class III level. During this two year project, 1,326 acres in the NCA was inventoried and 79 archeological sites were recorded by Western Rock Art Research. Of that total, 21 sites contain rock art panels with petroglyphs and/or pictographs that are representative of the Late Archaic, transitional Basketmaker, Formative Period Ancestral Puebloan, and Late Prehistoric/Ancestral Numic cultural groups. The artifact assemblages associated with the rock art appear to indicate that the sites were occupied by aboriginal people primarily during the gathering and processing of native plants; further studies are needed to confirm site function and chronology.



View of rock art panel recorded by Western Rock Art Research

5 Resources, Objects, Values, and Stressors

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

Ecological Resources (Upland and Riparian Vegetation, and Threatened and Endangered Plants)

Upland Vegetation Communities

The NCA is within a transition zone between the Mojave Desert, the Great Basin, and the Colorado Plateau eco-regions and includes vegetation communities from each eco-region. These communities include desert shrubs, warm season grasslands, and riparian species at lower elevations. Big sagebrush, pinyon pine, Utah juniper, and mountain mahogany, species typically associated with the Great Basin, are found at higher elevations in the NCA.

The ecological health of the upland vegetation communities was initially evaluated in 2011, through a Landscape Conservation Forecasting Process conducted in partnership with The Nature Conservancy. The assessments of status and trend provided below are based on the Natural Range of Variability (NRV) used in that process. Monitoring is being conducted in each community, with the acreages completed in FY 2014 shown in the table below.

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 by The Nature Conservancy at a detailed scale in 2011 during the Landscape Conservation Forecasting Process. 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.

Threatened and Endangered Plants: Shivwits Milkvetch (*Astragalus ampullariodes*)

This small native plant is found only in Washington County and has been listed as an endangered species since 2006. Six plant populations are known, two of which are located within the NCA. Shivwits milkvetch has very specific habitat requirements, growing only in the purple-hued, gypsum rich soils, within the boundaries of the Red Cliffs Recreation Area. All areas that support Shivwits milkvetch populations in the NCA are fenced to protect the plants and their habitat.

Upland Vegetation Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair	Stable

Upland Vegetation Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	Creosote:3,040 Blackbrush:22,265 Pinyon-Juniper:3,710 Big Sagebrush:3,060 Warm Season Grassland: 118 Desert Sand Sage: 1,580	Creosote:3,040 Blackbrush:22,265 Pinyon-Juniper:3,710 Big Sagebrush-3,060 Warm Season Grassland:118 Desert Sand Sage: 1,586	Creosote: 3,000 Blackbrush:22,00 Pinyon-Juniper:500 Big Sagebrush:500

Riparian Resources Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair	Stable

Riparian Resources Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	Montane Riparian:40 Warm Desert Riparian:160 Riparian Wash:402	Montane Riparian:40 Warm Desert Riparian:160 Riparian Wash:402	Warm Desert Riparian:50 Riparian Wash:50

Shiwits Milkvetch Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Shiwits Milkvetch Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	3,000	422	422

Stressors Affecting Ecological Resources (Upland and Riparian Vegetation, and Threatened and Endangered Plants)

Upland Vegetation Communities

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.

Riparian Resources

Riparian vegetation in the NCA along Quail and Leeds Creeks, the Virgin River, and ephemeral drainages is primarily being impacted by episodic flooding and exotic species infestations. Exotic salt cedar and Russian olive have invaded the riparian areas and compete with native species; integrated weed management was used in FY 2014 to control Giant Reed along 6 miles of the Virgin River through the NCA.

Threatened and Endangered Plants: Shiwits Milkvetch (*Astragalus ampullarioides*)

Exotic invasive annuals and predicted climate changes are the primary stressors on Shiwits milkvetch and its designated critical habitat in the NCA. This habitat is primarily located in the creosote-bursage community and is at risk of impacts from wildfires because invasive annual brome grasses are present throughout this community. Recent climate change modeling scenarios conducted for nearby Zion National Park (c.f., Slovic and Thoma 2011) indicated that predicted increases in ambient air temperature could impact the survival of the Shiwits milkvetch and other endemic native plant species whose habitats are localized to specific soil types with limited geographical distributions.

Scenic Resources

The Red Cliffs NCA sits astride a transition zone between two major physiographic provinces, the Great Basin section of the Basin and Range Province and the Colorado Plateau, where geological processes have created a highly scenic area that, for most visitors, typifies the rugged and beautiful American Southwest. The landscapes of the east and south sides of the NCA are visible from Interstate I-15, beginning near Leeds and extending through downtown St. George, a scenic 14 mile stretch. These are landscapes of dramatic contrasts, with jet-black basalt flows ending abruptly against deep red Navajo sandstone cliffs. The western boundary of the NCA is formed by the 1,800 foot high red sandstone cliffs of the Red Mountain Wilderness, creating a spectacular backdrop for the cities of Ivins and Santa Clara. The natural character of the NCA landscapes contrast sharply with the highly modified human environment just outside its boundaries.

The pristine quality of the visual resources in many portions of the NCA is reflective of its rugged and relatively undeveloped nature. There are however, some areas of disturbance and development that can be found inside its boundaries. Cottonwood Road is one of the primary roadways through the heart of the NCA and is paralleled and crossed by power transmission lines; a substation and other utility infrastructure are also visible from the roadway. These intrusions into the landscape give this area an industrial feel that seems strangely out of place in a generally natural and undeveloped landscape.

Scenic Resources Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Scenic Resources Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	44,825	Visual Inventory: Class I-20,766 Class II-8,971 Class III-14, 977 Class IV- 145 Visual Sensitivity High- 44,859 Medium-0 Low-0	44,825

Stressors Affecting Scenic Resources

Wild fires, exotic invasive annuals, and predicted climate changes that will benefit invasive species are the primary stressors that directly affect the scenic qualities of the NCA. In

total, 13,506 acres of BLM-managed public lands have burned within the NCA since 2000 (acres that burned multiple times are not double-counted in this total). As desert shrubs and higher elevation woodlands are not fire-adapted species, the fire scars will remain visible for decades.

Wildlife: Threatened and Endangered Species

Because the NCA lies within a transition zone between the Mojave Desert, the Great Basin, and the Colorado Plateau eco-regions, it provides a mosaic of habitats for diverse wildlife species, some at the extremes of their historic ranges. Such species tend to have less stable populations than those closer to the center of their range.

Six species that are currently listed under the protection of the Endangered Species Act as threatened or endangered have the potential to occur or do occur in the NCA. Two riparian obligate avian species, the Southwestern willow flycatcher and Western yellow-billed cuckoo, may utilize the riparian vegetation along the Virgin River, Leeds and Quail Creeks, but there have not been confirmed sightings. California condors are not known to nest or have special use sites in the NCA but may occasionally overfly the area. Two native fish of the Virgin River system, the Virgin River chub and woundfin, are found in the 6 mile reach of the Virgin River that flows through the NCA. The federally-listed threatened Mojave desert tortoise is known to occur in the NCA and data are collected on population trends and habitat conditions by BLM and the UDWR.

Mojave Desert Tortoise

The desert tortoise is a long-lived “indicator species” that is useful for evaluating the health of the Mojave Desert ecosystem. Over millions of years of evolution, the species has successfully adapted to changing environmental conditions and has been able to flourish, even in the highly variable and harsh environment of the Mojave Desert.

Mojave Desert Tortoise Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair	Stable

Mojave Desert Tortoise Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	30,256	25,308	500

Stressors Affecting Mojave Desert Tortoise

The loss or degradation of terrestrial and aquatic habitats, drought, wild fires fueled by exotic invasive species, and predicted climate changes are the primary stressors affecting the threatened and endangered species of the NCA. Mojave desert tortoise population declines have also been linked to predation by ravens, foxes, coyotes, and other predators and to an infectious upper respiratory disease that can be spread by contacts between individual tortoises.

Recreation Resources

With 81 trails and routes of varying length and difficulty, hiking, mountain biking, and horseback riding are popular activities in the NCA. Because federal, state, municipal, county, and private lands are all encompassed within the boundaries of the NCA, trails cross jurisdictional boundaries. Almost all the trails, with the exception of those in designated wilderness, have been signed, and all major roads leading into the NCA have portal signs. There are 35 trailheads where visitors can enter the NCA and park a vehicle. Trailheads typically include vault toilets, kiosks, interpretive panels, directional signs, and fences.

Within the boundaries of the NCA is the Red Cliffs Recreation Area, a fee site that includes a developed campground, day use area, a non-motorized trail system, and interpreted public use sites, including an Ancestral Puebloan habitation site, dinosaur trackways, the 1863 Orson B. Adams House, a historic structure that has been rehabilitated to Secretary of the Interior Standards for adaptive re-use as an interpretive site, and the partial standing walls of a 1950's era Hollywood movie set.

Recreational opportunities are locally well known and the NCA does attract visitors from outside the region; however, a majority of the recreational use is by local residents. Visitor use has increased in concert with regional population growth: in FY 2014, visits totaled 122, 489 and the estimated number of visitor days was approximately 46, 500.

Recreation Resources Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Recreation Resources Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	44,825	44,825	44,825

Stressors Affecting Recreation Resources

Recreational opportunities may be affected by any of the stressors that impact other values, as visitors to the NCA typically expect to see healthy native vegetation, diverse wildlife, and unspoiled scenic vistas. Visitation that exceeds the capacity of the developed facilities can not only impact natural and cultural resources but can also result in damage to those facilities and impair the quality of visitor experiences.

Naturalness: Designated Wilderness and Lands with Wilderness Characteristics

In 2009, through OPLMA, Title 1, Subtitle O, at sec.1972, the Cottonwood Canyon and Red Mountain Wilderness areas were added to the National Wilderness Preservation System and the Secretary of the Interior, through BLM, directed to administer each area in accordance with the Wilderness Act (16 U.S.C. 1131 et seq.). Approximately 19, 989 acres of the two designated wilderness areas are within the boundaries of the NCA. The characteristics of wilderness, including size, naturalness, outstanding opportunities of solitude and outstanding opportunities to primitive and unconfined recreation, are present in each of these areas.

The naturalness of the NCA outside of designated wilderness can be inferred from the results of inventories completed by BLM for the presence or absence of wilderness characteristics. These characteristics include size, naturalness, outstanding opportunities of solitude and outstanding opportunities to primitive and unconfined recreation. Between 2012 and 2014, NCA staff completed inventories for lands with wilderness characteristics in the NCA and found that three areas, totaling 1,586 acres, possessed those characteristics.

Naturalness: Designated Wilderness and Lands with Wilderness Characteristics Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Naturalness: Designated Wilderness and Lands with Wilderness Characteristics Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
25,000	25,000-NCA Inventories 2012-2014	1,586	1,586 acres monitored by NCA staff and volunteer Wilderness Stewards.

Stressors Affecting Naturalness: Designated Wilderness and Lands with Wilderness Characteristics

Wild fires, fueled by invasive annual grasses, climate change, and increased recreational use are the primary risk factors for the values of the Cottonwood Canyon and Red Mountain Wilderness areas. Increased recreation use could opportunities for solitude and other resource values. A Wilderness Management Plan is being prepared to address the long-term protection of wilderness characteristics and resource values and is expected to be released for public review in FY 2015.

Cultural/Historical Resources

The NCA lands have been occupied and used by many cultural groups over the broad expanse of human history. Evidence of this is preserved in prehistoric and historic period archeological sites and as Traditional Cultural Properties, Native American Sacred Sites, and cultural landscapes. The material culture of ancient Native American cultures, including the Archaic peoples, Formative Period Ancestral Puebloans and later Ancestral Numic-speaking groups, is found in campsites, rock shelters, and occupation sites. Modern Southern Paiute people also lived here and used this area, hunting and collecting native plants and cultivating crops along Quail and Leeds Creeks. As only a small percentage of the NCA has been inventoried to identify these cultural resources, many more undocumented sites exist and will be of significant scientific value.

Cultural/Historical Resources Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Cultural/Historical Resources Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	8,000	500 sites	25 sites monitored annually by NCA staff and volunteer Site Stewards

Stressors Affecting Cultural/Historical Resources

Stressors on cultural and historical resources include human-caused impacts and surface disturbances related to recreational uses, vandalism, and theft of artifacts. Wildfires can destroy historic wooden structures or features, and damage rock art bearing geological surfaces. Loss of vegetative cover can accelerate soil erosion that also damages site integrity.

Scientific Resources: Paleontological Resources

To date, inventories conducted in NCA have identified 46 scientifically significant paleontological localities. A majority of the localities are dinosaur tracks and trackways, including swim tracks with claw marks, fossilized skeletal remains, and coprolites. These localities are in the Triassic Chinle Formation, Triassic-Jurassic Moenave Formation, and the Jurassic Kayenta Formation, all of which are considered to be high potential for scientifically significant paleontological resources. Localities with fossilized plant remains have also been identified that are of scientific interest. There is a potential for the Quaternary and Tertiary Formations to include vertebrate fossils in cave/alcoves and unconsolidated fill.

Vertebrate trace fossils have been found in the Jurassic-age Navajo, Kayenta, and Moenave Formations in the NCA. Particularly well-preserved and numerous dinosaur tracks have been identified in the Babylon/East Reef area.

Fossilized bones have been reported from the Chinle Formation, Moenave Formation, and Springdale Member of the Kayenta Formation in the NCA. Bones from phytosaurs (long-snouted crocodile-like reptiles) and metoposaurs (large crocodile-like amphibians) have been found in the Chinle Formation. Bones and scales from fossil freshwater fish fauna, including shark, lungfish, and coelacanth, have been identified from the Whitmore Point Member of the Moenave Formation.

Silicified or “petrified” wood is found in many areas of the NCA. Although some petrified wood has been found in the Triassic Moenkopi Formation, the Springdale Member of the Kayenta Formation, and the Cretaceous Iron Springs Formation, the greatest concentration of the petrified wood is present in the Triassic Chinle Formation.

Scientific Resources: Paleontological Resources Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Scientific Resources: Paleontological Resources Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
44,825	200	46 localities	15 localities monitored annually by NCA staff and volunteer Site Stewards.

Stressors Affecting Scientific Resources: Paleontological Resources

Stressors on paleontological resources include natural and human-caused impacts. Wildfires and surface disturbances that remove vegetative cover can increase soil erosion and expose shallowly buried fossil materials, leaving them vulnerable to vandalism or theft. Damage to in situ fossil localities often results from recreational uses, such as rock climbing, target shooting, and paintball games. The collection of these specimens can deplete these resources, if the level of this activity is intensive and over a long period of time.

6 Summary of Performance Measure

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

Resources, Objects, and Values Status Summary Table		
Resource, Object, or Value	Status	Trend
Ecological (Upland Vegetation, Riparian Vegetation, Threatened & Endangered Plants)	Fair	Stable
Scenic Values	Good	Stable
Wildlife: Threatened & Endangered	Fair	Stable
Species	Good	Stable
Recreation	Good	Stable
Cultural/Historical Resources	Good	Stable
Natural (Wilderness and Lands with Wilderness Characteristics)	Good	Stable
Scientific: Paleontological Resources	Fair to Good	Stable

7 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 FY 2014. 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.

The upcoming year will be a particularly challenging year for the NCA Manager and staff, as we will be releasing several major planning documents for public review and comments. The Draft Red Cliffs NCA RMP/DEIS will be published, with the public review period expected during the late spring and summer of 2015. We also expect that the draft Comprehensive Transportation and Travel Management Plan/EA for public lands in Washington County, including the NCA, will be released for public review in FY 2015. And, we hope to be able to release a draft Wilderness Management Plan/EA for the Cottonwood Canyon and Red Mountain Wilderness areas of the NCA. While these planning efforts will continue to require considerable management and staff effort, they will direct the long-range conservation, protection, and restoration of the NCA resources and values.

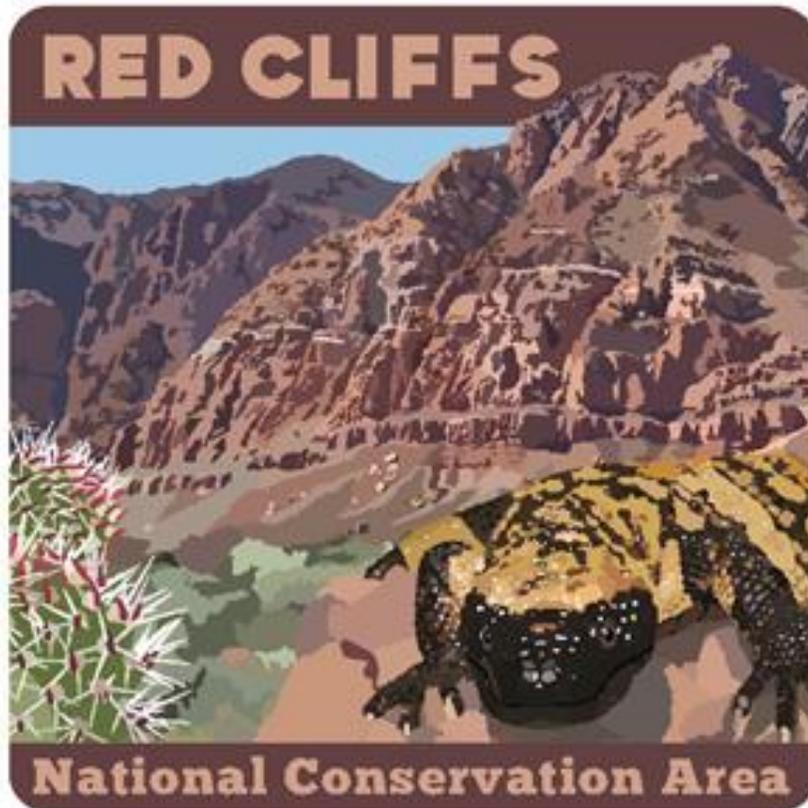
We will also strive to:

- 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 partners to restore fire damaged lands in the NCA. Funding proposals have been submitted to the Utah Partners in Conservation consortium and matching funds already committed by The Nature Conservancy and the Washington County Habitat Advisory Committee for this effort; and
- Develop new partnerships with academic institutions, including University of Nevada-Las Vegas and Dixie State University, to engage faculty and students in NCA research studies.

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



Dawna Ferris-Rowley



**NATIONAL
CONSERVATION
LANDS**

Red Cliffs

National Conservation Area

Bureau of Land Management
St. George Field Office
345 E. Riverside Drive
St. George, UT 84790
Phone: 435-688-3200

March 31, 2015

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