



**NATIONAL
CONSERVATION
LANDS**

Utah

Beaver Dam Wash

National Conservation Area

Annual Manager's Report—Fiscal Year 2014



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1 Beaver Dam Wash Profile

Designating Authority

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

Date of Designation: March 30, 2009

If other legislation exists that has affected the management of the unit, list it here as well. This text is only a placeholder. Select this text and start typing the information for the NLCS unit. This text is only a placeholder. Select this text and start typing the information for the NLCS unit.

Acreage

Total Acres in Unit	63,478
BLM Acres	63,478
Other Federal Acres	0
State and Private Acres*	8,619

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

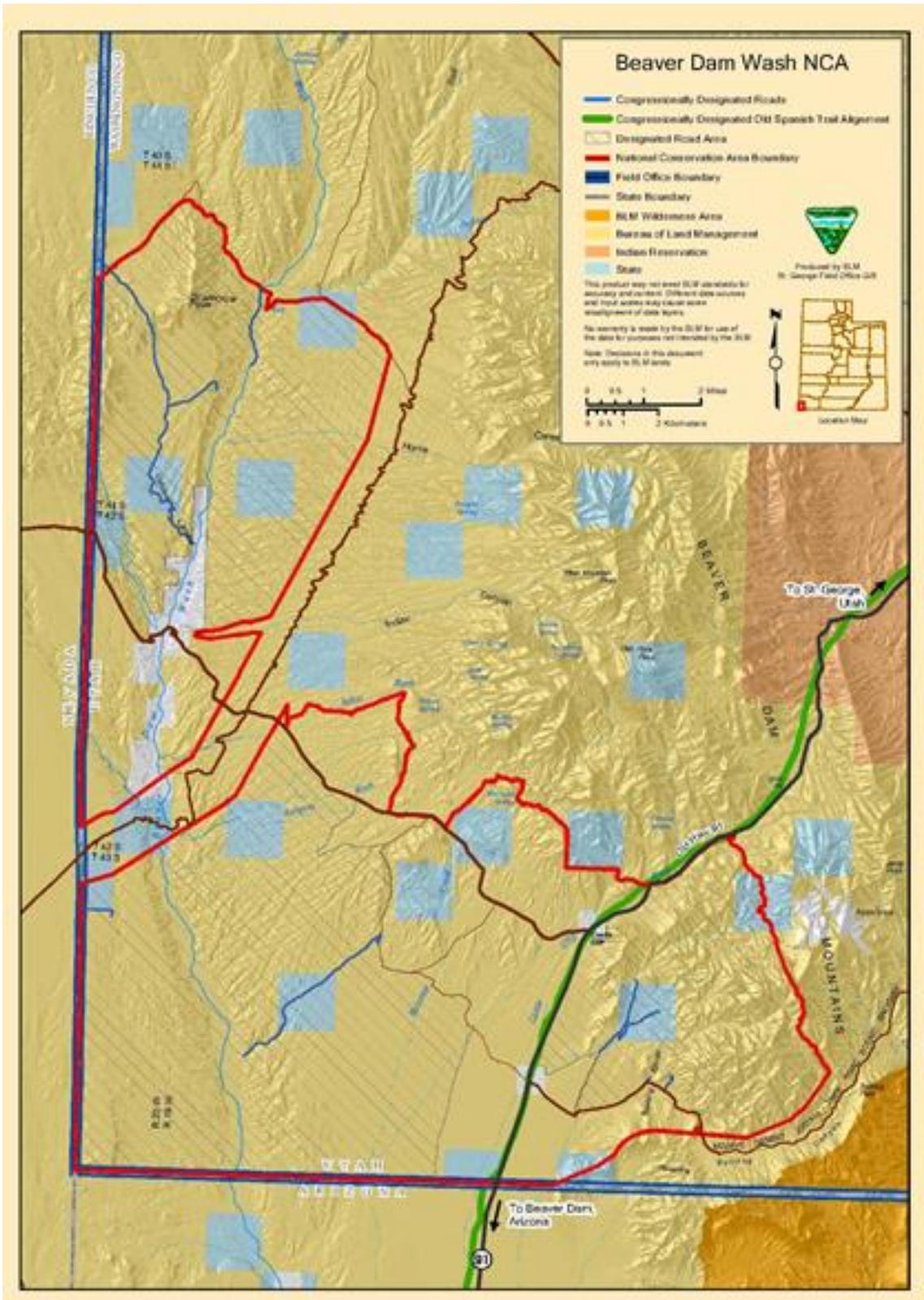
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Field Office Name	St. George
District Office Name	Color Country
State Office Name	Utah

Budget

Total Fiscal Year 2014 Budget	\$393,000
Subactivity 1711	\$250,000
Other Subactivities' Contributions	\$143,000
Other Funding	\$0

Map of Beaver Dam Wash National Conservation Area



Managing Partners

The Beaver Dam Wash National Conservation Area does not currently have established partnerships to assist with the management of the unit.

Staffing

The Beaver Dam Wash NCA shares permanent management and staff with the Red Cliffs 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, however, work in their areas of expertise for both NCAs and on public lands outside of the NCAs. The amount of staff time that is devoted to work in the Beaver Dam Wash NCA varies by job duties and annual workload targets. 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 managed by the SGFO and functions as the Contracting Officer's Technical Representative for multiple construction and service contracts for the NCAs and SGFO. This position also oversees the development of multi-media interpretive products (e.g., website content, brochures, panels, etc.) 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 all public lands in Washington County. The NCA Manager, GIS Specialist, Biologist, Landscape Architect, and Outdoor Recreation Planner comprise the core RMP Planning Team that is currently developing the OPLMA-mandated Resource Management Plans (RMP) for both NCAs.

Administrative Support, Lands and Realty, Rangeland Management, and Law Enforcement staff that are organizationally aligned to the SGFO 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, Utah 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 Information Center Manager is employed by the USFS Pine Valley Ranger District of the Dixie National Forest. Through Cooperative Agreements with BLM and the USFS, 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 and visitor services.

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. 1975. 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. The legislation also directed BLM to develop a comprehensive management plan (RMP) for the long-term management of the NCA.

On the legislative map that depicted the NCA, Congress identified three areas within Beaver Dam Wash NCA where all public motorized vehicle travel is limited to designated roads and which specific roads within these areas are available for motorized vehicle travel. Outside of the three “Designated Road Areas”, Congress directed that motorized vehicle travel be limited to roads that would be designated by BLM, through a Comprehensive Travel and Transportation Management Plan (TMP) that OPLMA directed BLM to complete for public lands in Washington County (OPLMA, Subtitle O, sec. 1979).

In 2010, the SGFO initiated a planning process to prepare RMPs for the Beaver Dam Wash and Red Cliffs 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 (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 RMPs and Draft RMP Amendment.

The release of Draft RMPs for the Red Cliffs and Beaver Dam Wash NCAs and a Draft RMP Amendment for the St. George Field Office /Draft EIS for a 90 day public review and comment period is expected 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

Comprehensive Travel and Transportation Management Plan (TMP)

Initial public scoping for the TMP was conducted through four scoping workshops, held concurrently with the RMP scoping in June of 2010. A Scoping Report was completed in October 2010 and issues identified through scoping used to develop the range of management alternatives for the draft TMP. Informal scoping with various Federal, State, Tribal, local governments, and diverse public land user groups has been ongoing since 2010. Evaluations have been completed for all routes on public lands in Washington County (2800 miles), including those within the NCA that are available for public travel.

Four management alternatives have been developed for the TMP and an Environmental Assessment (EA) is currently being prepared to satisfy the NEPA requirements of this activity level plan. Washington County, a Cooperating Agency for the TMP, 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 the NCA RMP has not yet been approved, an RMP Implementation Strategy has not been developed.

Key National Environmental Policy Act Actions and/or Project Authorizations

Welcome Springs Riparian Protection Project

An EA was completed in FY 2014 to evaluate the environmental consequences of constructing approximately ½ mile of fencing around the riparian area of the Welcome Springs. The proposed fencing was designed to exclude livestock from the riparian area, but continue to allow big game and other wildlife to access surface water that seeps from base of limestone outcrops along the Welcome Creek drainage. Gates in the fencing allow motorized vehicle access for maintenance of the existing spring developments by the livestock operators who hold water rights on the Welcome Springs. The exclusion of livestock from the riparian areas will eliminate grazing impacts on native willows and other riparian vegetation and improve water quality in the Welcome Creek drainage. A Finding of No Significant Impact was made based on the EA and the Decision Record signed for this project in FY 2014; construction of the fence was completed in August of 2014.

3 Year's Projects and Accomplishments

General Accomplishments

Beaver Dam Wash NCA Oral History Project

During this fiscal year, BLM, the Southern Utah National Conservation Lands Friends (SUNCLF), and the Special Collections Library at Dixie State University collaborated on a project to collect oral histories from long-time livestock operators who graze on public lands within and adjacent to the NCA. Ten digital video and audio interviews were recorded with five informants, including an 82-year-old federal grazing permit holder who began working cattle on the Beaver Dam Slope of Utah, Arizona, and Nevada as a young boy during the Great Depression. He described the communal spring roundups and stock drives, through which herd owners moved their cattle from winter range on the Beaver Dam Slope to high elevation summer ranges on the Pine Valley Mountains. Another informant, from the Moapa River Band of Paiute, shared recollections of his experiences as an "Indian cowboy" working on roundups on the Beaver Dam Slope during the 1950s. This project was undertaken by BLM to better understand the historical uses of the public lands of the NCA, one of the congressionally defined values or "purposes" for which the NCA was designated. The digital videos, audio interviews, and interview transcripts are on file with BLM and curated with the Special Collections Library at Dixie State University.

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, in support of the new RMP being prepared for the Beaver Dam Wash NCA. 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 Manager participated on the Recovery Implementation Team (RIT) for the Utah-Arizona Subunit of the Northeast Mojave Recovery Unit, established by the USFWS through the revised Recovery Plan for the Mojave Desert tortoise (2011). The desert tortoise is a Federally listed threatened species for which critical habitat was designated in 1994 and Recovery Units identified across the Mojave Desert, from California to southern Utah. The

Beaver Dam Wash NCA supports populations of the Mojave Desert tortoise and includes approximately 50,900 acres of designated critical habitat within its boundaries. The RITs for each Recovery Unit were constituted by the USFWS and comprised of land managers, scientists, and representatives of local governments, conservation, and land use groups. Each RIT was tasked to assist the USFWS in the planning, implementation, tracking, and evaluation of actions needed to assist the recovery and delisting of the Mojave Desert tortoise. During this fiscal year, the Utah-Arizona Subunit RIT worked on the prioritization of current threats to desert tortoise and critical habitat in this area of the Recovery Unit and actions needed to reduce those 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.

USFWS Annual Monitoring Studies for Mojave Desert Tortoise

Biological field teams from the USFWS Tortoise Recovery Program conducted annual desert tortoise monitoring, using line distance transects to detect tortoises and sign within approximately 15,000 acres of the NCA. A report detailing the results of this year's monitoring studies will be made available to the public by the USFWS in FY 2015.

Land Health Monitoring

In FY 2014, critical monitoring data was collected in the NCA by BLM staff and Resource Associates, provided through a Cooperative Agreement with the American Conservation Experience (ACE). Trained and mentored by SGFO Rangeland Management Specialists, teams of Resource Associates collected and evaluated various types of land health monitoring data. Precipitation amounts were obtained from rain gauges at two locations within the NCA; data from these locations have been collected for over 30 years, allowing comparisons to be made between past and current precipitation regimes. Vegetation cover data, using the point intercept method, and frequency data, using the nested plot frequency method, were collected on five key areas in the NCA to determine vegetation trend. Utilization data were collected on key forage species used by livestock at multiple monitoring sites across the NCA, selected based on topography, observed changes in vegetation communities, and distance from water sources.

Riparian conditions were evaluated along Beaver Dam Wash and in the Welcome Creek drainage using the Multiple Indicator Monitoring (MIM) methodology which measures multiple indicators, such as stubble height, greenline composition, and woody species age and height class. Data on noxious weed infestations in the NCA were encoded in NISMS and small-scale infestations were eradicated using hand tools wherever they were encountered.

Cave Inventory and Monitoring

The southeastern Beaver Dam Mountains of the NCA are composed of Redwall limestone and other rock units that are conducive to the formation of caves and karst features. In FY 2014, ongoing inventory by NCA Recreation staff identified four previously unknown caves. These newly-discovered caves, and others previously documented in the NCA, are highly



View of NCA Outdoor Recreation Planner mapping “Sunbeam Cave”.

variable in size, ranging from large caves with several hundred feet of passage to small caves with beautiful and exotic cave formations such as stalactites, stalagmites, and general flowstone. Others are shelter type caves that include archeological materials and serve as excellent time capsules for the preservation and study of past human cultures. All caves discovered in the NCA are inventoried and all features and associated resources (e.g., cultural, biological,

geological) systematically photographed and described. The cave interior is surveyed using Total Station and GPS technologies and a detailed topographic map created. Each cave is evaluated for significance under criteria identified in the Federal Caves Protection Act.

Lands with Wilderness Characteristics Inventories and Evaluations

The NCA Outdoor Recreation staff, assisted by ACE Resource Associates, completed full inventories of all public lands in the NCA, to identify lands with wilderness characteristics. They prepared technical reports to document their evaluations of each inventory unit; data from these reports were used in the development of management alternatives related to lands with wilderness characteristics for the draft NCA RMP.

Programmatic Environmental Assessment for Integrated Weed Management Program

During FY 2014, BLM 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.

Estimated Number of Visits in FY 2014: 10,145
Estimated Number of Visitor Days in FY 2014: 24,593

Current Areas of Focus

During FY 2014, the NCA Manager and staff continued to prioritize the development of the draft RMPs for the Beaver Dam Wash and Red Cliffs NCAs and a Draft EIS. Administrative review drafts of the RMPs and RMP Amendment /Draft EIS were provided to the Cooperating Agencies (Washington County, Utah; Mojave County, AZ, and the State of Utah), the BLM Utah State Office, and Washington Offices for review and comment. 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 staff and management 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 for NCA and SGFO management and staff, as route designation has the potential to impact all resource management programs and land uses. The release of the draft TMP/EA is expected to generate considerable public interest and controversy. Approval of the TMP and implementation of route designations will require substantial commitments of management and staff time over the next two years.

Education, Outreach, and Interpretation

Public Information Center Brown Bag Programs

Weekly “Brown Bag” programs are offered 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 public. In FY 2014, one of the weekly Brown Bag programs highlighted the NCA Oral History Project and showed video footage of an interview with one of the informants. This program was attended by many of the informants in the Oral History Project and others who graze livestock in the NCA.

Partnerships

The Beaver Dam Wash NCA continues to be supported by partnerships with the Dixie-Arizona Strip Interpretive Association (DASIA), the American Conservation Experience (ACE), and the Southern Utah National Conservation Lands Friends (SUNCLF), through long-term Cooperative Agreements.

DASIA provides volunteers that assist with public contacts and visitor services in the interagency Public Lands Information Center in St. George, UT and with special projects, such as cleanups of target shooting trash in the NCA. The American Conservation Experience recruited two Resource Associates to assist BLM with inventory and evaluation

of lands with wilderness characteristics during this fiscal year. SUNCLF supports BLM's management of the NCA, through volunteer programs, environmental education outreach, and special projects. In 2014, SUNCLF recruited and helped to train 25 new volunteer site stewards to monitor archeological sites in the NCA and assist NCA staff and permitted researchers with field inventories. SUNCLF staff guided field trips to the NCA for 45 members of the Washington County Historical Society, showing the participants those areas that were historically important in the management of livestock grazing on public lands, based on information collected through the Oral History Project.

Volunteers

In FY 2014, volunteers donated more than 250 hours of time in resource monitoring and assisted BLM with special projects in the NCA. As examples:

- Site stewards who monitor archeological sites in the NCA donated 50 hours of volunteer time. Five volunteer site stewards donated 40 hours of time, assisting researchers from the Western Rock Art Research to conduct Class III archeological inventories and document rock art sites in the NCA.
- Volunteers assisted biologists from BLM and Utah Division of Wildlife Resources with the identification and counting of birds along Beaver Dam Wash during the annual Audubon Society-sponsored Christmas Bird Count and the Migratory Bird Identification Hikes, during the annual St. George Winter Bird Festival.
- Six Trail Stewards from the Tres Rios Chapter of the Old Spanish Trail Association monitored the potential Armijo Route of the Old Spanish Trail through Bulldog Canyon in the NCA.

Land (or Interests in Land) Acquisitions

There were no land acquisitions or interests in lands activities for NCA completed in fiscal year 2014.

4 Science

Science

A Science Plan has not yet been formalized for the Beaver Dam Wash 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 at this time includes the following:

Fire Ecology Studies

Faculty and students from the Plant and Wildlife Sciences Department at Brigham Young University continued long-term monitoring of three fire-damaged study areas within the NCA, in an effort to better understand how biological soil crusts re-establish and the effects of invasive species, livestock grazing, and recreational uses on natural re-vegetation in the Mojave Desert. As no re-seeding or other vegetation rehabilitation efforts were conducted in the three study areas, they can provide control data on the factors that influence natural re-vegetation in arid environments.



View of fire-damaged soil crusts and native vegetation in the NCA.

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 sec. 1975, are:

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 Beaver Dam Wash National Conservation Area.

The following assessment focuses on those resources identified as purposes for NCA designation for which monitoring data is currently being collected.

Ecological Resources - Upland and Riparian Vegetation

Upland Vegetation

The NCA is within a transition zone between the Mojave Desert and the Great Basin eco-regions and includes vegetation communities from the two eco-regions. Mojave Desert shrubs communities, such as creosote bush and blackbrush cover a majority of the NCA land base. The iconic Joshua tree, a type of yucca, co-occurs with blackbrush and scattered Utah juniper trees at mid-elevations in the NCA. Basin big sagebrush, pinyon pine, and mountain mahogany, species that are typically associated with the Great Basin eco-region, 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. All communities were evaluated as being highly departed from NRV, based on the prevalence of exotic invasive species. Multiple wildfires in some areas have converted former desert shrub communities into invasive grasslands dominated by brome species (*Bromus tectorum* and *Bromus rubens*). Monitoring is being conducted in each community, with the acreages completed in FY14 shown in the table below.

Riparian Vegetation

Warm desert riparian and riparian wash communities were mapped, and the ecological health of these communities evaluated along the Beaver Dam Wash, Welcome Creek, and many ephemeral drainages in 2011, during the Landscape Conservation Forecasting Process conducted in partnership with The Nature Conservancy. Woody species that typify both riparian communities include mesquite, native willows, and Fremont's cottonwood. Monitoring is conducted annually in the NCA riparian areas, with the acreages completed in FY 2014 shown in the table below.

Ecological Resources - Upland Vegetation Status and Trend Table

Status of Resource, Object, or Value	Trend
Fair	Stable

Ecological Resources - Upland Vegetation Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
63,478	Creosote:22,041 Blackbrush:37, 281 Pinyon-juniper:270 Mountain shrub:143 Big Sagebrush:14	Creosote:22,041 Blackbrush:37,281 Pinyon-juniper:270 Mountain shrub:143 Big Sagebrush:14	Creosote:5,000 Blackbrush:10,500 Pinyon-juniper:50 Mountain shrub:15 Big Sagebrush:14

Ecological Resources - Riparian Vegetation Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Ecological Resources - Riparian Vegetation Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
63,478	Warm Desert Riparian:114 Warm Desert Riparian Wash: 3,345	Warm Desert Riparian:114 Warm Desert Riparian Wash: 3,345	Warm Desert Riparian:114 Warm Desert Riparian Wash: 2,000

Stressors Affecting Ecological Resources – Upland and Riparian Vegetation

Upland Vegetation

Wild fires, exotic invasive annuals, and predicted climate changes that benefit invasive species are the primary stressors affecting all upland vegetation communities. Mature blackbrush and Joshua tree shrub lands have been most severely impacted. Over the past 20 years, wild fires, fueled by exotic annual brome grasses, have burned or re-burned 80% of this community; many re-burn areas have been converted to exotic brome grasslands that prevent the re-establishment of native species. As Mojave Desert vegetation is slow to recover, even under optimum conditions, it will be centuries before mature blackbrush and Joshua tree communities are again present in the fire-damaged areas of the NCA.

Riparian Vegetation

Riparian Vegetation

Riparian vegetation along Beaver Dam Wash, Welcome Creek, and in ephemeral drainages is primarily being impacted by episodic flooding, such as occurred in September of 2014, livestock grazing, unauthorized motorized vehicle travel, and exotic species infestations. Cattle in the Beaver Dam Slope and Jackson Wash Allotments have access to the riparian zones of Beaver Dam Wash and Welcome Creek. Grazing impacts include the trampling and removal of sapling trees and soil disturbances that accelerate stream bank erosion and impair surface water quality. Exotic salt cedar (Tamarack spp.) has invaded a majority of the riparian areas. In FY 2014, BLM installed fencing around Welcome Springs and along Welcome Creek, to protect the riparian vegetation from further livestock grazing and motorized vehicle-related damage.

Scenic Resources

Diverse native vegetation communities and the rugged topography of the NCA landscape contribute to its scenic values. Low elevation Mojave Desert species, such as white bursage, creosote, several species of cholla, yucca, and barrel cactus cover the gently sloping bajada between the Beaver Dam Wash and the Beaver Dam Mountains. The vegetation communities gradually transition to Joshua tree and blackbrush stands on mid-elevations slopes of the Beaver Dam Mountain to pinyon-juniper woodlands on the mountain peaks. For a brief period every spring, the desert comes alive with vibrant colors, while desert marigold, Fremont's dalea, and beavertail cactus are in bloom. Large washes cut through the landscape, all flowing towards the Beaver Dam Wash, a dominant topographic feature of the landscape. Wide panoramic views can be seen from most hilltops.

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
63,478	63,478	Visual Resource Inventory Class I-0 Class II-7,586 Class III-43,753 Class IV-12,138 Scenic Quality A-0 B-8,900 C-54,488 Sensitivity High-45,471 Medium-1,111 Low-16,941	63,478

Stressors Affecting Scenic Resources

Wild fires, exotic invasive annuals, and predicted climate changes that benefit invasive species are the primary stressors that directly affect the scenic qualities of the NCA. In 2005-2006, catastrophic fires burned or re-burned nearly 50% of the eastern and northern portions of the NCA. As Mojave Desert shrubs are not fire-adapted species, the fire scars will remain visible for decades. In the southern and western portions of the NCA, the native vegetation communities and the scenic values remain undamaged by fire.

Wildlife: Threatened and Endangered Species

Because the NCA lies within a transition zone between the Mojave Desert and the Great Basin, 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.

Three avian species, the Southwestern willow flycatcher, Western yellow-billed cuckoo, and Californian condor, are currently listed under the protection of the Endangered Species Act and have the potential to occur in the NCA. The Southwestern willow flycatcher and Western yellow-billed cuckoo are both riparian obligate species; Southwestern willow flycatchers have been observed along Beaver Dam Wash. There have been no confirmed sightings of Western yellow-billed cuckoo. California condor are not known to nest or have special use sites in the NCA.

The Federally listed threatened Mojave Desert tortoise does occur in the NCA and research data have been collected on desert tortoise populations since the 1930s. The USFWS conducts annual monitoring of population trends, using Line Distance Sampling, while BLM monitors habitat conditions.

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



View of desert tortoise in fire-damaged area now dominated by red brome.

highly variable and harsh environment of the Mojave Desert. Since 1971, the population of desert tortoise on the Beaver Dam Slope (Slope) of southwestern Washington County, Utah has been considered to be declining and in need of protection. On August 20, 1980, USFWS listed this population as a threatened species and designated approximately 25,000 acres of critical habitat on the Slope (USFWS 1980). In 1990, USFWS listed all desert tortoise populations north and west of the Colorado River as “threatened”. In 1994, critical habitat was designated and a recovery plan developed for this species that established recovery units throughout its range. The NCA includes approximately 50,900 acres of designated critical habitat, the Utah portion of the Northeastern Mojave Recovery Unit.

Mojave Desert Tortoise Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Mojave Desert Tortoise Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
50, 900	50, 900	50,900	15,500

Stressors Affecting Mojave Desert Tortoise

Wild fires, exotic invasive annuals, and predicted climate changes that benefit invasive species are the primary stressors affecting critical the Mojave Desert tortoise. The creosote-bursage community, which comprises a majority of the critical habitat, has not been extensively damaged by recent wild fires, but remains at high risk because invasive brome grasses are present throughout this community. Approximately 80% of the blackbrush-Joshua tree shrublands have been damaged by fires and will not recover for many years. Some areas impacted by multiple fires have been converted to invasive brome grasslands, which provide limited forage value or shade cover for tortoises.

Recreation Resources

The mild climate of southwestern Utah allows for enjoyable outdoor recreation opportunities in the NCA during all but the hottest months of summer. The NCA currently has no developed recreation trails or other facilities and current uses are primarily casual and dispersed in nature: rock climbing, upland game bird hunting, nature photography, and ATV/UTV riding on the network of unpaved roads that cross some areas of the NCA. In 2014, the estimated number of visits was 10, 145, the estimated number of visitor days 24, 593. Both reflect steady increases in recreational use of the NCA, as it is within easy driving distance of the major metropolitan area of Las Vegas, Nevada and the rapidly growing cities of Mesquite, Nevada, and St. George, Utah. The NCA has the potential to be a recreation destination, as visitor services are developed and information about the recreation opportunities of the area more widely disseminated.

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
63,478	63,478	63,478	63,478

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. Unmanaged recreational uses can not only impact natural and cultural resources but can also result in damage to developed recreation facilities and impair the quality of visitor experiences.

Naturalness: Lands with wilderness characteristics

The naturalness of the NCA can be inferred based on the results of inventories completed by BLM for the presence or absence of wilderness characteristics in the NCA. These characteristics include size, naturalness, outstanding opportunities of solitude, and outstanding opportunities to primitive and unconfined recreation. The results of the inventories and evaluations indicate that wilderness characteristics are present in 69% of the public lands of the NCA.

Naturalness: Lands with wilderness characteristics Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Naturalness: Lands with wilderness characteristics Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
63,478	63,478	43,873	43,873

Stressors Affecting Naturalness: Lands with wilderness characteristics

Wild fires, exotic invasive annuals, and predicted climate changes that benefit invasive species are the primary stressors that have the potential to impact the naturalness of the NCA. Increasing recreational uses, particularly if not properly managed, would also have the potential to impact its natural qualities, if these uses damage resource values and degrade the quality of visitor experiences.

Cultural/Historical Resources

The NCA land base has 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 growing corn, sunflowers, and beans in small gardens in the Beaver Dam Wash. As only a very 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.

The NCA was also crossed by the first Anglo-Europeans in this region. In 1826, American fur trapper and explorer Jedediah Smith traveled through Washington County to the Beaver

Dam Wash, following it south to the Virgin River in Arizona. By 1829, a long distance pack trail system had been pioneered by New Mexicans to the Spanish missions in California that crossed the NCA, following the current alignment of U.S. Highway 91. From 1829 until about 1850, mule pack train used this pack trail that was labeled by John C. Fremont, who also traveled through the area, as the “Old Spanish Trail”. Today, the Old Spanish Trail is a Congressionally- designated National Historic Trail, with the legislatively depicted Northern Route and the potential Armijo Route both crossing the NCA. In the late 19th century, Mormon settlers constructed wagon roads, homesteads, and cowboy line camps in the NCA.

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
63, 478	4,500	30 sites	15 sites

Stressors Affecting Cultural/Historical Resources

Stressors on cultural and historical resources include human-caused impacts and surface disturbances related to recreational uses, including recreational target shooting and motorized vehicle off-road travel; vandalism and theft of artifacts; and surface disturbances created by livestock grazing. Wildfires can impact the scientific dating potential of sites and accelerate soil erosion that damages site integrity.

Scientific Resources: Paleontological Resources

In the Beaver Dam Mountains of the NCA are exposed rock units that are of scientific interest in the study of Earth’s geologic and biological history. Some formations contain fossils, tracks, burrows, and casts that provide evidence of the evolution of life forms and changing environmental conditions over time. Prior paleontological inventories in NCA have been very limited in scope and have not yet identified localities containing vertebrate or plant fossils. Invertebrate marine fossils are found in the Devonian through Permian age limestone formations. The Miocene age Muddy Creek Formation, Permian Kaibab, and the Cambrian Bright Angel Shale have moderate potential (PFYC Class 3) for significant paleontological resources.

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
63, 478	100	5 localities	2 localities

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 common invertebrate fossils and silicified wood specimens can deplete these resources, if the level of this activity is intensive and over a long period of time.

Scientific Resources: Caves and Karsts

The Beaver Dam Mountains of the NCA are comprised of some rock units that are conducive to the formation of caves and karst features. Systematic inventories to identify, map, and evaluate cave and karsts in the NCA have yet to be completed. Where inventories have been conducted, large and small caves with beautiful cave formations, unique biota, and archeological materials have been documented

Scientific Resources: Caves and Karsts Status and Trend Table

Status of Resource, Object, or Value	Trend
Good	Stable

Scientific Resources: Caves and Karsts Inventory, Assessment, Monitoring Table

Acres in Unit	Acres Inventoried	Acres Possessing Object	Acres Monitored in FY14
63,478	500	18 caves	10 caves

Stressors Affecting Scientific Resources: Caves and Karsts

Stressors on cave and karst resources are primarily human-caused impacts that include damage to or theft of cave formations, spray painting, and other types of graffiti, and the construction of campfires within cave interiors that impact cave biota and cave formations.

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 sec. 1975, are:

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 Beaver Dam Wash National Conservation Area.

Resources, Objects, and Values Status Summary Table		
Resource, Object, or Value	Status	Trend
Ecological (Upland and Riparian Vegetation)	Fair	Stable
Scenic	Good	Stable
Wildlife-Threatened & Endangered	Good	Stable
Recreational	Good	Stable
Naturalness	Good	Stable
Cultural/Historical	Good	Stable
Scientific (Paleontological, Caves and Karsts)	Good	Stable

7 Manager's Letter

Dear Friends of the Beaver Dam Wash NCA,

The Manager's Annual Report highlights just a few of the activities and projects that BLM completed in FY 2014 to conserve and protect resource values in the NCA. Our efforts were furthered by contributions from many dedicated volunteers, community partners, researchers, and members of the public who support the purposes for which Congress designated this NCA in 2009.

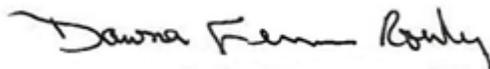
In the upcoming year, we will be focused on the release of the Draft RMP/Draft EIS for the NCA. We will be hosting public workshops during the 90 public review and comment period. Using comments provided by the Cooperating Agencies, other federal, state, and local governmental entities, and the public, we will begin the preparation of a Proposed RMP/Final EIS for the NCA.

Our focus will also be on the following

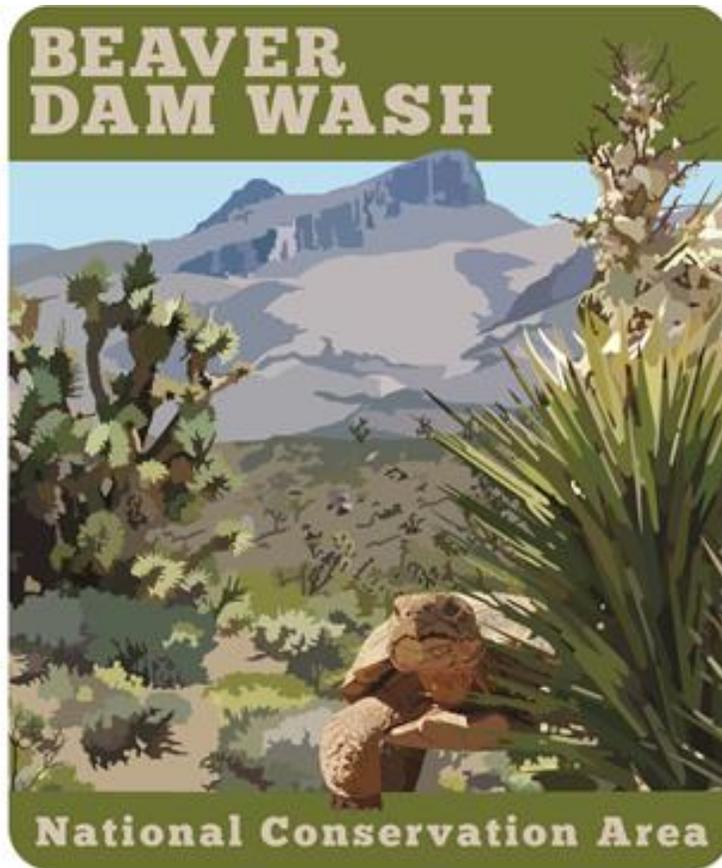
- Supporting research that furthers the understanding of post-fire recovery of native Mojave Desert vegetation communities and the development of effective biological and herbicidal controls for exotic invasive species;
- Working with current partners, like the Utah Division of Wildlife Resources and The Nature Conservancy, to begin the restoration of as much as 100 acres fire-damaged land in the NCA, through the planting of containerized native shrubs, perennial grasses, and forbs. Funding proposals have been submitted to the Utah Partners in Conservation and matching funding for this project has been committed by The Nature Conservancy;
- Develop new partnerships with the academic institutions, including University of Nevada-Las Vegas and Dixie State University, to engage faculty and students in NCA restoration projects and other research studies;
- Working closely with the National Park Service's National Natural Landmark Program and Dixie State University in the evaluation process for possible boundary changes for the Joshua Tree National Natural Landmark.

We thank you for your interest in and support of the Beaver Dam Wash NCA.

Sincerely,



Dawna Ferris-Rowley



**NATIONAL
CONSERVATION
LANDS**

Beaver Dam Wash

National Conservation Area

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

March 31, 2015

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