

Red Rock Fire Station and Campground Wells

Identifying Information:

Title, EA number, and type of project:

Red Rock Fire Station and Campground Wells

DOI-BLM-NV-S020-2012-0009-EA

Location of Proposed Action:

Mt. Diablo PM

Red Rock Fire Station

T21S, R59E Section 8

Red Rock Campground

T21S, R58E NE ¼NE¼ Sec. 1

Name and Location of Preparing Office:

Bureau of Land Management

Office of Fire and Aviation

Southern Nevada District Office

4701 North Torrey Pines Drive

Las Vegas NV 89130

Background Information

The Bureau of Land Management's (BLM) Red Rock Canyon National Conservation Area (RRCNCA) is one of the most popular outdoor recreation areas in Southern Nevada experiencing approximately one million visitors per year. As such, Red Rock Fire Station Complex was constructed to provide vegetation, resource, and property protection for the Red Rock area, opening for service in 2003. The construction of the Fire Station Complex was intended to provide to utilities or the Fire Station and the adjacent Red Rock Canyon Campground. Due to the complexity of connecting to utilities in nearby communities, the construction was not completed, leaving the Fire Station Complex without water, phone, or power access. Since the completion of the Fire Station in 2003, water has been brought in by truck by the BLM.

Red Rock Canyon Campground was developed to replace the campground at Oak Creek, which was closed due to environmental impacts on sensitive riparian habitats and constraints that prohibited expansion to accommodate increased use. Red Rock Canyon Campground averages 50,000 visitors per year with the campground at capacity during peak months of March and April. Campground visitors are also supplied water by truck by the BLM.

Purpose and Need for Action:

Red Rock Fire Station Complex and Red Rock Canyon Campground were constructed without connection to a self contained water system. The Fire Station Complex supports as many as four engines, one twenty person hand crew, multiple Law Enforcement Rangers, 13 room living quarters, off site meeting rooms and training facilities. The campground is the only sanctioned campground in RRCNCA and provides visitors a place to stay while visiting the NCA.. Currently water, supplied to both locations using a tanker truck, is transported from the Southern Nevada District Office (SNDO), thirty miles with multiple trips per week. A more stable supply of water is need to better serve support staff and visitors in Red Rock Canyon.

The purpose of the Proposed Action is to provide a reliable source of water to the Fire Station Complex and Campground. The BLM has acquired water rights in the area amounting to 4 acre feet per year (AFY). The water will be divided equally between the Fire Station Complex and Campground, BLM's decision to be made is to approve or not approve the installation of two wells, one at the Fire Station Complex and one at the Campground.

Scoping, Public Involvement and Issues:

Internal scoping was performed to identify potential issues present with the Proposed Action. The issues identified as present are:

- Recreation;
- Migratory Birds;
- Threatened and Endangered Wildlife Species.

Proposed Action and Alternatives

Description of the Proposed Action:

Since the 2003 construction the Red Rock Fire Station Complex and Campground, these facilities have been without a permanent water source, and have to rely on water to be trucked in from Las Vegas. To remedy this problem, the BLM SNDO has acquired the water rights to 4 afy and allocated 2 afy to each location. Two wells will be installed to access the water, one at the Fire Station Complex, and one at the campground.

Test wells, one at each location, would be drilled to determine the depth and placement of the wells. The contractor would provide the testing and design to determine the final design of the wells before construction begins.

The new well systems would be designed and built with the following criteria:

- Located within the proposed and analyzed site;
- Constructed of corrosion-proof, water tight materials;
- Powered by solar and backup generators; and
- Maintain a consistent filtration system.

In addition, the completed wells would be:

- Low maintenance;
- Low energy consumption; and
- Quiet operation.

Fire Station Complex Well System

Construction of the well system at the Fire Station Complex would be located on the western boundary of the paved area, south of the office and living quarters (see maps in appendix). A filtration system would be installed in an adjacent building and connected to the living quarters and Law Enforcement buildings with pipes. Once completed, the well would provide efficient potable water to this complex. Construction of the well systems would consist of but not limited to:

- Drilling and excavation of cemented soils, caliche and/or solid rock.
- Drilling a bore hole, casing and submersible pump.
- Placement of a 10,000 - 15,000 gallon underground tank.
- Placement of a 12 ft. by 12 ft. prefabricated control room.
- Control room will house: booster tanks, pressure tanks, and disinfectant system.
- System will tie into existing water lines to living quarters, engine bay, and offices.
- System will tie into fire sprinkler system in office(s) and living quarters.
- Removal of existing fire hydrant.

Campground Well

A well, pump station and a pipeline would be constructed in the campground area (see map in the appendix). The new well system would incorporate potable water well with water production to meet the demand of the campground's existing and future domestic use and the 2 afy. Design and installation will include but is not limited to:

- Bore hole, casing and submersible pump.
- Booster tanks, pressure tanks, and disinfectant system.
- Electrical connections and mechanical controls.
- Connection to existing distribution system.
- New distribution to group sites.
- Demolition of existing water tank.
- New water tank installed in the previously disturbed area of the old tank.
- Pipeline installation in a previously disturbed road and trails. To install the pipeline, there will be 10 ft of new disturbance on either side of the road. The area would be trenched for the placement of the pipe (0.58 miles).
- Staging and lay down area would be in the camp host site, gravel turnout.
- Five new spigots will be installed along the new pipeline. 22 spigots would be replaced. The Spigots would be 5 ft X 5 ft. There will be 3-4 ft deep of gravel french drains to minimize pooling.
- Water truck would be used for dust abatement, no pooling of water would be allowed.

Disturbance

Total Disturbance as a result of constructing the 2 well systems would be approximately 13 acres, calculated with 4 acres of new disturbance and 9 acres of previous disturbance.

Maintenance

Upon completion of the Proposed Action maintenance of the new and existing water system may be need on an ongoing basis. The pump houses and wells would be monitored monthly and repairs to the system would be conducted on an as-needed basis.

Vegetation

All vegetation would be cleared on the construction site within the approved construction disturbance limits. ucca and cactus would be salvaged prior to construction and replanted in temporary disturbed areas or in the RRCNCA landscaping.

Scheduling

The Proposed Project would take place once all applicable contracting steps are completed. The test well drilling at the Campground would not begin until the Append of the Biological

Opinion is completed by the U.S. Fish and Wildlife Service. Tortoise clearance surveys would be conducted before construction could begin . If construction begins while campground is open for visitors then mitigation measure described in the document would be adhered to. .

Description of Alternatives Analyzed in Detail:

No Action

Under the No Action alternative, the Proposed Action would not take place. If no action is taken, Red Rock Fire Station Complex and Campground would continue to receive water transported in by tanker truck.

Alternatives Considered but not Analyzed in Detail

Original plans for Red Rock Fire Station called for the connection to existing municipal water lines in the Summerlin community adjacent to RRCNCA but were determined unfeasible due to cost and coordination.

Conformance

The Proposed Action is in conformance with the designated Management Emphasis Areas (MEAs) within the 2005 Red Rock Canyon NCA RMP and ROD, which provide a framework for indicating the management intent for a particular geographic area and for evaluating the appropriateness of future actions and proposals. Located in the designated Road Developed MEA Zone, the proposed action is in conformance Road Developed MEA Zone guidelines as it will support the moderate to high uses of human interaction and on site controls/facilities. The proposed action will also support BLM support staff associated with providing resource protection and public safety. .

Affected Environment:

The table below summarizes the environmental attributes that have been reviewed, whether the attributes would be affected by the Proposed Action, and rationale for that determination. Elements that would not be affected would not be discussed further, with the exception of T&E Species. This element, though not affected, are discussed to reiterate the need to follow mitigation measures. Any present and affected elements would also be carried forward for analysis.

- NP = not present in the area impacted by the proposed or alternative actions
 NI = present, but not affected to a degree that detailed analysis is required
 PI = present with potential for relevant impact that need to be analyzed in detail in the EA

Table 1. Affected Resources Form

Determination	Resource	Rationale for Determination
NI	Air Resources	The Proposed Project would not likely affect air quality since the project would require a dust control permit obtained through DAQEM. See Mitigation Measures/Stipulations section of the EA.
NP	Areas of Critical Environmental Concern	The Proposed Project area is not within an ACEC or any critical desert tortoise habitat.
NP	BLM Natural Areas	The Proposed Action is not located within North Pine Creek Natural Area.
NI	Cultural Resources	Proposed Action is in a surface area that has been previously surveyed for significant cultural resources, none of which have been found. No further review required.
NI	Greenhouse Gas Emissions	Currently there are no emission limits for suspected Greenhouse Gas (GHG) emissions, and technically defensible methodology for predicting potential climate changes from GHG emissions. However, there are, and will continue to be, several efforts to address GHG emissions from federal activities, including BLM authorized uses.
NP	Environmental Justice	No minority or low-income communities are present in the Proposed Project area.
NP	Farmlands (Prime or Unique)	No unique or prime farmlands are designated on the district.
NI	Fish and Wildlife Excluding Federally Listed Species	Wildlife species, including BLM sensitive species, in the general area include small mammals, rodents, birds and reptiles. These species would be displaced as lands are disturbed within the project area. The primary direct impact of the Proposed Action on wildlife would be killing or maiming of ground dwelling animals during construction and the loss of habitat. Additional impacts associated with the mortality from vehicular traffic may also be realized upon the completion of construction and subsequent use of the project area.
NP	Floodplains	The Proposed Action does not occur in a floodplain and will not impact downstream flooding.
NI	Fuels/Fire Management	It is unlikely the Proposed Action would affect Fuels/Fire Management since fire restrictions must be adhered to where applicable.
NI	Geology / Mineral Resources/Energy Production	No mining claims or mining operations are present.
NI	Hydrologic Conditions	Project location and size (4 AFA total) will not impact hydrologic conditions of the area.

NI	Invasive Species/Noxious Weeds	Travel and construction disturbance impose increased risks of introducing and transporting weeds. Contractors and those associated with the Proposed Project will comply with BLM weed minimization stipulations, thus reducing the possibility for introduction of weeds into the Proposed Project Area.
NI	Lands/Access	The Proposed Project is unlikely to affect lands/access since the contractors and project manager follow BLM Standard Stipulations to inform adjacent landowners/leaseholders of activity and maintain road access.
NP	Livestock Grazing	No grazing is permitted in Red Rock Canyon NCA.
PI	Migratory Birds	Carried forward for analysis.
NI	Native American Religious Concerns	No issues identified during the development of the RMP.
NI	Paleontology	Proposed Action is in a surface area that has been previously surveyed for significant paleontological resources, none of which have been found. No further review required.
NI	Rangeland Health Standards	No issues.
PI	Recreation	Carried forward for analysis.
NI	Socio-Economics	The Proposed Action may provide social and economic benefit of providing water resource for campground users and RRCNCA BLM support staff, but not to a degree that analysis would be required.
NI	Soils	Even though the Proposed Action will cause some disturbance in the campground, these disturbances should not cause significant negative impacts to soils. The fire-station site is already disturbed.
NI	Threatened, Endangered or Candidate Plant Species	There are no TE plants within the project area.
NI	Threatened, Endangered or Candidate Animal Species	The Proposed Action requires formal consultation with the Fish and Wildlife Service (USFWS) and must be appended to the Red Rock Canyon NCA Programmatic biological opinion (File No. 1-5-04-F-526). This notice will serve as the Section 7 Determination and no additional paperwork will be provided (Sec 7 Log # NV-052-12-103).
NP	Wastes (hazardous or solid)	Not present.
NI	Water Resources/Quality (drinking/surface/ground)	All holes should be drilled according to the Nevada Regulations for Water Well and Related Drilling NRS Statues 534.
NP	Wetlands/Riparian Zones	There are no wetlands/riparian zones present in the project area.
NP	Wild and Scenic Rivers	No wild or scenic rivers are present in Red Rock Canyon NCA.
NP	Wilderness/WSA	The Proposed Action is not located within WSAs, ISAs, or designated Wilderness.
NI	Woodland / Forestry	It is unlikely that woodland/forestry would be affected since the Proposed Project would salvage cacti and yucca and restore the temporary disturbed areas using native plant materials.
NI	Vegetation Excluding Federally Listed Species	BLM sensitive plant species, Yellow two-tone penstemon, occurs nearby, but not in the project area.
NI	Visual Resources	The Proposed Action will not impact the Visual Resource characteristics of the existing landscape.

NI	Wild Horses and Burros	The Proposed Action will not allow pooling of water from water trucks during dust abatement and 3-4 ft. deep gravel French drains will be constructed at the Campground spigot areas, thus reducing the attraction of burros to the site.
NP	Areas with Wilderness Characteristics	The Proposed Action is located in areas which were inventoried and determined to not meet the elements of wilderness characteristics.

Migratory Birds

Under the Migratory Bird Treaty Act of 1918 (MBTA) and subsequent amendments (16 U.S.C. 703-711), it is unlawful to take, kill, or possess migratory birds. A list of the protected bird species can be found in 50 C.F.R. §10.13. The list of birds protected under this regulation is extensive and the project site has potential to support many of these species, including the BLM sensitive species the western burrowing owl (*Athene cunicularia*). Typically, the breeding season is when these species are most sensitive to disturbance, which generally occurs from March 15 through July 30.

Recreation

RRCNCA is the focal point of many outdoor recreation activities and events including: sightseeing, picnicking, camping, hiking, bicycling, bird watching, horseback riding, backpacking, rock scrambling, and technical rock climbing. The Red Rock Canyon Campground is located three miles east of the visitor center on State Route 159. The campground has 52 individual campsites (including 14 walk-in sites) and 7 group campsites. Campground amenities include vault toilets, picnic tables, BBQ grills, fire pits, tent pads, shade structures, and potable water.

Threatened and Endangered Species

Threatened and endangered species are placed on a federal list by the U. S. Fish and Wildlife Service (USFWS) and receive protection under the Endangered Species Act of 1973, as amended. The only T&E species known to occur in the vicinity of the project area is the threatened desert tortoise (*Gopherus agassizii*).

The habitat requirements needed for a desert tortoise to survive include sufficient suitable plants for forage and cover, suitable substrates for burrow and nest sites, and freedom from disturbance. In the Mojave region, the desert tortoise occurs primarily on flats and bajadas with soils ranging from sand to sandy-gravel characterized by scattered shrubs and abundant inter-shrub space for herbaceous plant growth. They are also found on rocky terrain and slopes. The desert tortoise comes out of hibernation sometime during the month of March and returns to hibernation in November depending on temperature. Past monitoring data in southern Nevada shows that tortoise activity peaks in April, May, September and October.

Historical survey data indicates that the area surrounding the project site is low to very low density tortoise habitat.

Environmental Effects:

Migratory Birds

Proposed Action

To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.

If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

No Action

If no action is undertaken, migratory birds will not be impacted by construction activities.

Recreation

Proposed Action

The Proposed Action will enhance the recreational experience of the campground. Currently, water is only supplied to the individual campsite area, which can be an inconvenience for the group site campers who have to either bring in their own water or hike a distance to get the water from the individual campsite area. The Proposed Action will provide water to the group sites, which will reduce the burden of the group campsite users to have to bring in their own water or haul it from the individual campsite area. The Proposed Action would also allow for future planning of the campground, such as showers.

No Action

If no action is undertaken, recreation experience is the campground will remain in its current condition with no water supply to group sites and reliance on transportation of water from the District Office.

Threatened and Endangered Species

Proposed Action

This project will disturb a total of 3.00 acres of tortoise habitat and it is adjacent to undisturbed, contiguous habitat wherein potential corridors for tortoise entry exist. Since tortoise sign has been found in the vicinity and undisturbed habitat exists in the area, there is potential for tortoises to wander into the project area. If not noticed and avoided during construction, desert tortoises could be either injured or killed (by crushing) or harassed (by being moved out of harm's way).

The Proposed Action requires formal consultation with the Fish and Wildlife Service (USFWS) and must be appended to the Red Rock Canyon NCA Programmatic biological opinion (File No. 1-5-04-F-526). Additional impacts to desert tortoise and desert tortoise critical habitat will be discussed in the above mentioned appended Biological Opinion. All minimization measures in the above mentioned appended biological opinion must be followed.

No Action

If no action is undertaken, T&E species will not be impacted by construction and disturbance.

Cumulative Effects

Cumulative impacts are defined in the BLM (1988) NEPA Handbook as impacts on the environment that result from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time.

The Fire Station Complex was recently expanded to accommodate a new septic system. Additionally, a current communications system installation project at the complex is being analyzed in a separate NEPA document. If approved, it will provide communication capabilities to the Fire Station Complex and be a valuable tool for BLM support staff to provide protection for natural resources, property and human health and safety.

With a stable supply of water at the Red Rock Canyon Campground, possible future projects may include adding new facilities, such as showers, to provide additional amenities to visitors. Any future Campground expansion would contribute to further environmental impacts by reducing habitat and introducing a higher level of human and ground disturbance.

These types of actions occurring in the vicinity of the Proposed Project area that may contribute to cumulative effects would be similar to the Proposed Project construction. Overall, cumulative effects would likely be negligible..

Mitigation Measures/Stipulations

To ensure potential impacts to the area are minimized, the mitigation measures/stipulations listed below will be added as Standard Stipulations:

Air Quality

- Ensure a dust control permit is obtained through DAQEM for all soil disturbing activity of .25 acres or greater, in the aggregate, and permit stipulations are in compliance for the duration of the activity.

Cultural

- If significant resources are encountered BLM RRCNCA Archeologist will be contacted before work will be continued in the immediate vicinity.

Fuels/Fire Management

- Fire Restrictions must be adhered to where applicable.

Geology / Mineral Resources / Energy Production

- Any excavation that produces mineral materials must be used within the project area or stockpiled on site for sale by the BLM. If mineral materials are to be stockpiled for sale a contract will be necessary before the stockpiled mineral materials can leave the area.

Invasive Species / Noxious Weeds

- All vehicles, equipment, and personal gear will be clean and free of vegetation and soil before arrival and departure on site.

Land/Access

Notify, if applicable, any adjacent landowners and leaseholders to ensure that this project will not interfere with already established sites and leases areas. If road access to site is across other leased areas, concurrence should be obtained from ROW holder.

Migratory Birds

- To prevent undue harm, habitat-altering projects or portions of projects should be scheduled outside bird breeding season. In upland desert habitats and ephemeral washes containing upland species, the season generally occurs between March 15th - July 30th.
- If a project that may alter any breeding habitat has to occur during the breeding season, then a qualified biologist must survey the area for nests prior to commencement of construction activities. This shall include burrowing and ground nesting species in addition to those nesting in vegetation. If any active nests (containing eggs or young) are found, an appropriately-sized buffer area must be avoided until the young birds fledge.

Paleontology

- If significant resources are encountered BLM RRCNCA Archeologist will be contacted before work will be continued in the immediate vicinity.

Recreation

- Construction activities should be conducted in a way to minimize the disturbance to the campers and campground hosts as much as possible.
- When the campground is open, construction activities should not start earlier than 8:00 am.

Soils

- All soil excavated for the test and production wells must be disposed off-site in approved areas only.

Threatened and Endangered Wildlife Species

- All minimization measure identified in the Biological Opinion must be adhered to.

Water Resources / Quality (drinking/surface/ground)

- All holes will need to be reclaimed according to NRS and NAC regulations after abandonment.

Woodland and Forestry

- Areas that are temporarily disturbed from the installation of new pipe will be restored using native plant materials common to the site. Cacti and yucca will be avoided to the extent possible. If cacti and yucca cannot be avoided, they will be properly removed per BLM salvage standards and replanted adjacent to the disturbance or used in BLM landscaping.

Wild Horse and Burros

- Prevent pooling of water to avoid attracting burros.

Tribes, Individuals, Organizations, or Agencies Consulted:

Consultation was completed to append the Biological Opinion concerning Desert Tortoise.

Table 2. List of Persons, Agencies and Organizations Consulted

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
U.S. Fish and Wildlife Service	Consultation was completed to Append the Biological Opinion concerning Desert Tortoise.	Pending

List of Preparers

Table 3. List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Lucas J. Rhea	Prescribed Fire and Fuels Tech.	Fire/Fuels Mgt. and Invasive Weeds
Amelia Savage	Wildlife Biologist	ACEC, T&E Species, Fish and Wildlife, Migratory Birds
Lisa Christianson	Air Resource Specialist	Air Quality, Greenhouse Gas Emissions
Mark Boatwright	Archeologist	Cultural Resources, Paleontology, Native American Religious Concerns
Catrina Williams	Realty Specialist	Lands/Access
Sendi Kalcic	Wilderness Planner	Wilderness and WSA, Areas with Wilderness Characteristics.
Lee Kirk	Recreation Planner	Recreation
Gayle Mars-Smith	Assistant Field Manager, Resources	T&E Plants, Woodland and Forestry, Vegetation
Susan Farkas	Planning and Environmental Coordinator	Environmental Justice, Social Economics
Boris Poff	Hydrologist	Floodplains, Hydrologic Conditions, Soils, Water Resources/Quality
Lorrie Dee Dukes	Geologist	Geology / Mineral Resources/Energy Production
Chris Linehan	Recreation Planner	Visual Resources
Krystal Johnson	Wild Horse and Burro Specialist	Wild Horse and Burros