

**U.S. Department of the Interior
Bureau of Land Management**

ENVIRONMENTAL ASSESSMENT

DOI-BLM-AZ-C030-2013-0044-EA

Wildlife Water Improvement – Red Cliff

Applicant: Arizona Game and Fish Department

La Paz County, AZ

Lake Havasu Field Office
2610 Sweetwater Avenue
Lake Havasu City, AZ 86406

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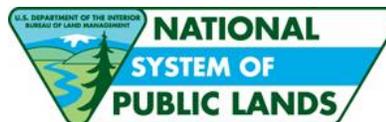


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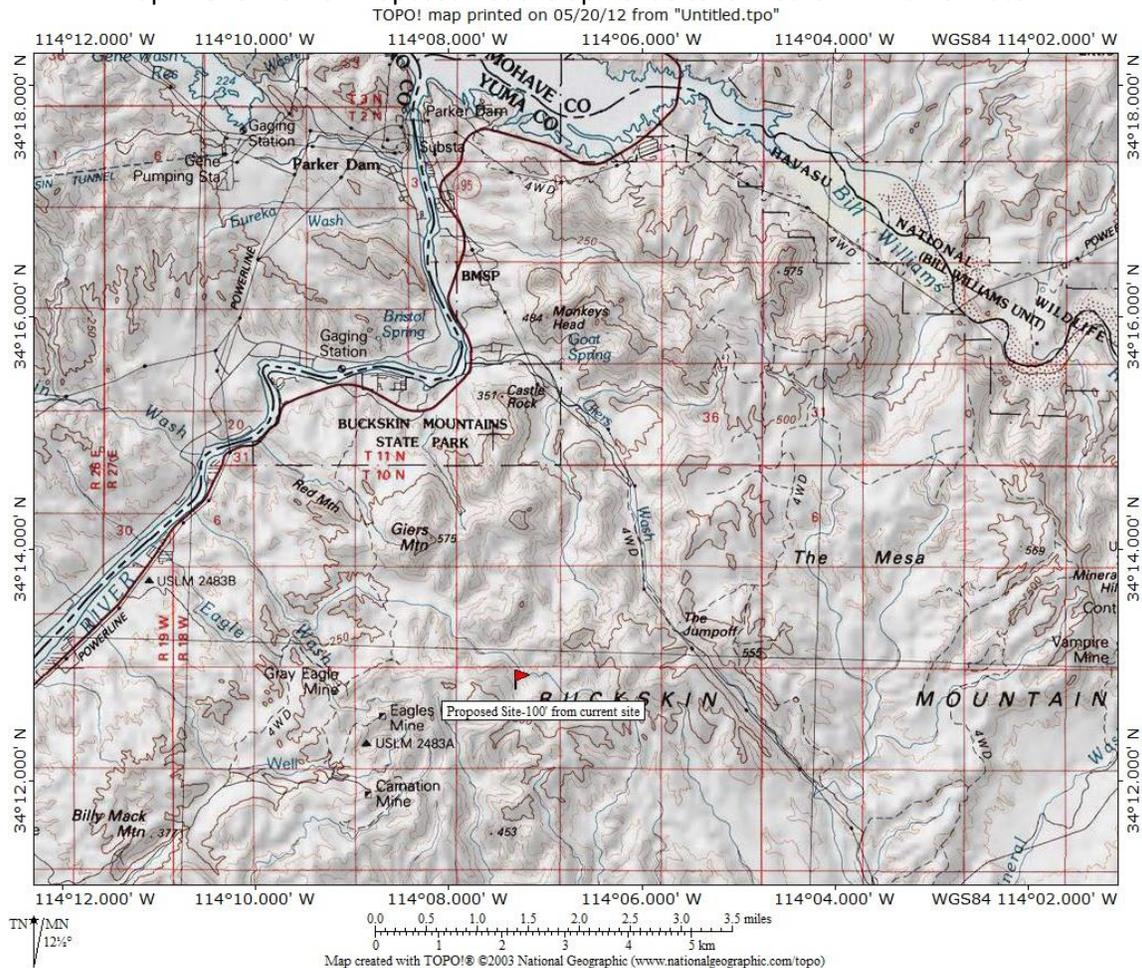
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1.0 INTRODUCTION

1.1 Project Location

The proposed project is located in the Buckskin Mountains (Maps 1-2) within the Gibraltar Wilderness Area in La Paz County northeast of the city of Parker, AZ (Osbourne Well: T 10N R18W S15 NE ¼). The Buckskin Mountains are east of U.S. Highway 95 and south of the Bill Williams River, see Map 1. The Buckskin Mountains have elevations ranging from near the Colorado River at approximately 400' to about 1888' at Giers Mountain. The topography ranges from gentle bajadas and rolling hills to high benches, rugged cliffs, ridges, and mesas. Both Arizona Upland and Lower Colorado River subdivisions of Sonoran desertscrub occur in the proposal area.

Map 1. Overview of Proposed Redevelopment Site for Red Cliff Wildlife Water



1.2 Project Background

The Arizona Game and Fish Department (AGFD) has identified the need to augment Red Cliff (#996) wildlife water catchment with another collection point. This structure was originally constructed in 1990 in a wash. The old structure was 3 fiberglass sausage tanks with float valves that were later replaced. The existing structure is a 4500 gallon fiberglass ring tank with paired pipelines reaching upstream to a small concrete dam to form the collection point. The fiberglass water trough is gravity fed and replaced the old float valve system. Wildlife that have been observed to use this water include desert bighorn sheep (*Ovis canadensis mexicana*), bobcat (*Lynx rufus*), turkey vulture (*Cathartes aura*), red tailed-hawk (*Buteo jamaicensis*), coyote (*Canis latrans*), Gambel's quail (*Callipepla gambelii*), dove (*Zenaida* spp.), various bat species, and other wildlife species. Red Cliff is the only AGFD artificial wildlife water within the Gibraltar Wilderness. The BLM constructed a tunnel wildlife water near Gibraltar Mountain in the Gibraltar Wilderness, approximately 3.5 miles from Red Cliff. The Gibraltar Wilderness was established in November 1990.

1.3 Purpose and Need for the Proposed Action

The LHFO is responding to AGFD's proposal to improve the Red Cliff wildlife water within the Gibraltar Mountain Wilderness Area. AGFD has identified inefficiencies of water collection with the out-dated system currently in place. In order to meet the objective of supplying a perennial water source for wildlife, AGFD proposes to improve water collection for year-round use. The improved system will preserve wilderness characteristics while enhancing wildlife habitat through a perennial water source.

1.4 Decision to be Made

The BLM will decide whether to grant permission for AGFD to improve the efficiency of an existing wildlife water tank with an additional collection point or take no action.

1.5 Scoping and Issues

1.5.1 Internal Scoping

The Proposed Action was presented to the BLM interdisciplinary NEPA team by AGFD on October 16, 2012. The following table outlines resource presence/absence and potential for impact from the proposed action and alternatives.

<u>Resource</u>	<u>Resource Status</u>	<u>Rationale</u>
<u>Air Quality and Climate*</u> <i>Jennifer House</i>	NP	Project area is within an attainment area.
<u>Areas of Critical Environmental Concern</u> <i>George W. Shannon, Jr., Ph.D</i>	NP	Project not within an ACEC.
<u>Cultural, Historic & Paleontological Resources*</u> <i>George W. Shannon, Jr., Ph.D</i>	PNI	See Cultural Clearance in Appendix C
<u>Environmental Justice</u>	NP	Proposed Action not expected to impact

<i>Project Lead</i>		Environmental Justice.
<u>Farmlands (Prime or Unique)</u> <i>Project Lead</i>	NP	No farmlands exist within the project area.
<u>Fish Habitat*</u> <i>Doug Adams</i>	NP	No fish habitat present within project area.
<u>Floodplains*</u> <i>Vacant</i>	NP	Although the Proposed Action is within the vicinity of a wash, no impact to the floodplains is expected.
<u>Forest Management*</u> <i>Vacant</i>	NP	No forest exists within project area.
<u>Fuels/ Fire Management</u> <i>Mike Trent</i>	NP	The project site has sparse vegetation.
<u>Geology/ Minerals</u> <i>Amy Titterington</i>	PNI	No mineral operations currently exist in the project area. No future operations are permitted within Wilderness Areas.
<u>Grazing/ Rangeland</u> <i>Project Lead</i>	NP	Although the project area is within the Genado allotment, no grazing occurs within the project area.
<u>Invasive & Non-Native Species</u> <i>Jennifer House</i>	PI	See Section 3.1
<u>Lands & Realty</u> <i>Lisa Stapp</i>	PNI	Proponent already holds authorization for this wildlife water.
<u>Law Enforcement</u> <i>Jonathon Azar</i>	NP	No change to Law Enforcement activities is expected due to the Proposed Action.
<u>Migratory Birds*</u> <i>Jennifer House</i>	PNI	Proposed Action will not remove vegetation or inhibit migratory birds.
<u>Native American Religious Concerns*</u> <i>George W. Shannon, Jr., Ph.D</i>	PNI	Consultation with the Fort Mojave Indian Tribe
<u>Noise</u> <i>Project Lead</i>	NP	The Proposed Action will not increase noise beyond the initial construction period.
<u>Public Health & Safety</u> <i>Bill Parry</i>	NP	The Proposed Action is not expected to impact public health and safety.
<u>Recreation</u> <i>Amanda Deeds</i>	PNI	The Proposed Action will not inhibit primitive recreational opportunities within the area.
<u>Socioeconomics</u> <i>Project Lead</i>	NP	Proposed Action not expected to impact Socioeconomics.
<u>Soils</u> <i>Vacant</i>	PNI	No digging or soil loss is expected for the Proposed Action.
<u>T & E Species*</u> <i>Jennifer House</i>	PI	See Section 3.2
<u>Travel Management</u> <i>Amanda Deeds</i>	NP	No OHV routes exist at project site. Access to site is provided via existing routes.
<u>Vegetation</u> <i>Jennifer House</i>	PNI	No disturbance or removal of vegetation is expected.
<u>Visual Resources</u> <i>Amanda Deeds</i>	PNI	The Proposed Action is not expected to change the visual resources within the project area.
<u>Wastes Hazardous or Solid*</u> <i>Cathy Wolff-White</i>	NP	No hazardous waste is present or expected within the project area.

<u>Water Quality Surface and Ground*</u> <i>Vacant</i>	NP	No impact to water quality is expected. Water permits have been acquired.
<u>Wetlands and Riparian*</u> <i>Doug Adams</i>	NP	No wetlands present within the project area.
<u>Wilderness, WSAs, Wild & Scenic Rivers</u> <i>Amanda Deeds</i>	PI	See Section 3.3
<u>Wilderness Characteristics</u> <i>Amanda Deeds</i>	NP	No Wilderness Characteristics are present within the project area. (See Section 3.3 for Wilderness)
<u>Wild Horses & Burros</u> <i>Chad Benson</i>	NP	No wild horses or burros are found within the project area.
<u>Wildlife Aquatic</u> <i>Doug Adams</i>	NP	No aquatic wildlife are present within the project area.
<u>Wildlife Terrestrial</u> <i>Jennifer House</i>	PI	See Section 3.4

*Consideration Required by Law or Executive Order

NP = Not Present

PNI = Present, Not Impacted

PI = Present and/ or Potentially Impacted

1.5.2 External Scoping

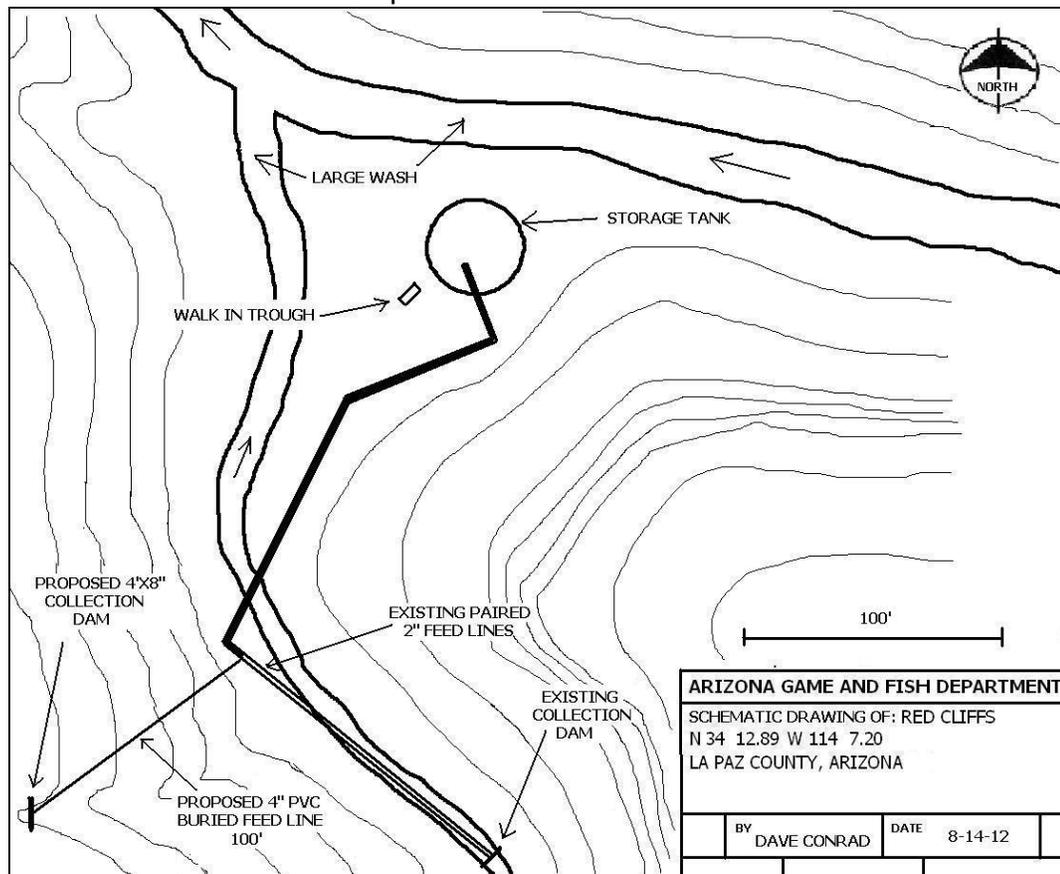
It was determined that no external scoping needed to be conducted because the project is small and more of a maintenance issue.

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

It has been determined that using small drainages with relatively large diameter feed lines allows for the collection of water from short duration intense rain events that are relatively common rather than relying on the large and sustained rain events required by the existing structure. The proposed action is to augment the existing structure with a more efficient, reliable and cost efficient water collection point in an arroyo approximately 150' feet from the existing tank while minimizing negative impacts to wilderness, see Schematic 1 below.

Schematic 1 of Proposed Action at Red Cliff Wildlife Water



2.1.1 Design Features of the Proposed Action

The proposed collection point will have a small diversion made out of ready-mix cement and native rock to reduce visual impact. Water from the existing tank will be used to mix the cement. The cement diversion will be approximately 4' long and 8" high with a width of approximately 2-6". There will be 100' of 4" diameter pipe that will be buried and run from the proposed collection point to the existing feed line. The existing feed line is a pair of 2" diameter steel pipes. The proposed line would lie on top of the existing pipes and painted to camouflage the structure and match surrounding substrate. All surface rocks with patina will be saved and replaced with proper orientation to minimize visual obtrusion.

All materials would be transported to the wilderness boundary by vehicle via existing roads and trails then hiked in by approximately 10 people from AGFD and volunteers, see Map 2 below. Since the project is small and requires minimal equipment and materials to construct, this method would likely minimize disturbance to wildlife and wilderness.

The anticipated list of materials and equipment:

- 3-5 bags of cement to construct diversion
- 300 feet of 4" diameter PVC pipe
- C-clamps to clamp proposed piping onto existing pipes
- Cement mixing box, shovels, hand tools
- Hardware cloth to cover intake and prevent debris entry
- 5-gallon buckets

Disturbance to vegetation will be kept to a minimum. All native plants reasonably capable of being transplanted will be salvaged from the disturbed area and replanted at or near their original site. No saguaro cactus will be disturbed by this project as they do not occur within the project footprint. BLM Lake Havasu Field Office employees and AGFD employees would closely monitor the site for invasion by non-native flora. The agencies would make every effort to ensure non-native species do not become established at the project sites by inspecting and cleaning equipment of residual soil or vegetation (or life stages thereof), before transportation into the area.

Workers would camp outside wilderness in the predetermined location agreed to by BLM and AGFD representatives. The entire project is estimated to take approximately 3 days to complete, sometime between January 1 and April 1, 2014. All work would occur during daylight. Participants would be permitted to have a small cook fire each night using dead, down, and detached native wood collected locally, or using wood brought to the campsite from off-site.

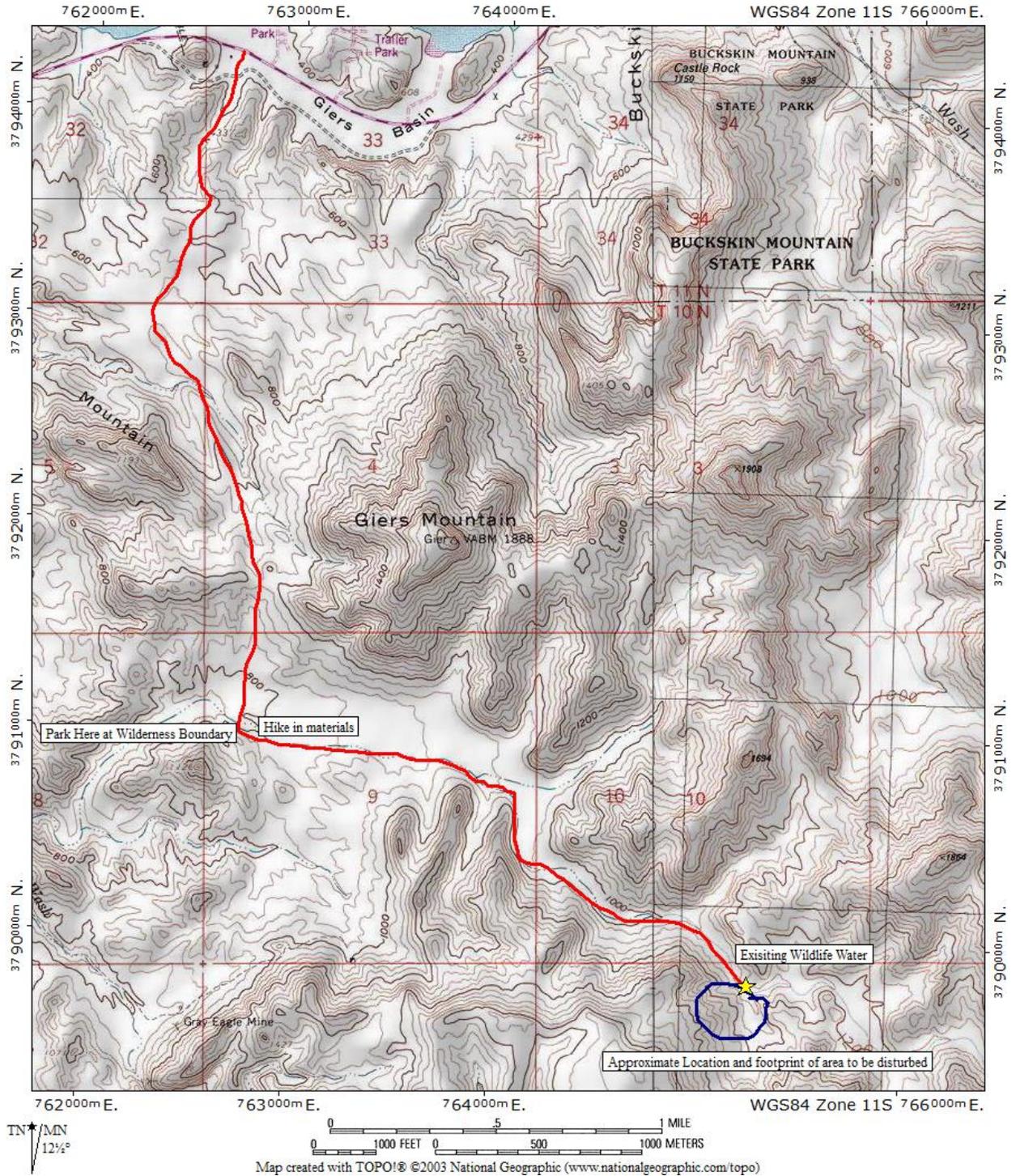
The development would continue to be inspected periodically to determine water level and condition of materials by AGFD personnel. It would be monitored relative to effectiveness of the water collection and storage systems and wildlife use. Components of the new catchment system would be maintained and/or replaced as needed by AGFD.

Water should not need to be hauled to the new system after the initial filling, except during times of extreme drought. Supplemental water hauling may need to occur by helicopter that year if there are insufficient rains to maintain perennial water.

However, water would be hauled to the catchment, when needed, to maintain a consistent source of water for wildlife.

Map 2. Proposed Redevelopment Site for Red Cliff Wildlife Water

TOPO! map printed on 09/07/12 from "Untitled.tpo"



2.2 No Action Alternative

No redevelopment of Red Cliff wildlife water development would take place. The AGFD would monitor the existing site carefully. Water hauling would be expected to continue via helicopter at least every other year.

2.3 Alternatives Considered but Eliminated From Detailed Analysis

The alternative action considered was to construct a new wildlife water approximately ¼ mile downstream still within the Gibraltar Wilderness. This storage system for the wildlife water would be completely buried except for the wildlife friendly drinking trough. Once the system was complete and filled the old system would be removed and the area restored to previous conditions.

This proposed action was eliminated because it would not meet the Purpose and Need, identified above, by minimizing impact to Wilderness characteristics. Also the alternative would require the transport and use of mechanized equipment to construct.

2.4 Conformance with Land Use Plan

The proposed action is in conformance with the *Lake Havasu Field Office Resource Management Plan* (RMP) Environmental Impact Statement, and its Record of Decision (BLM 2007) and Bureau policy regarding wildlife management.

The proposed action is provided for in the following RMP decision(s):

“Distribution/density of wildlife waters throughout the planning area will be maintained, improved, and/or increased to sustain and enhance wildlife populations across their range. All existing wildlife waters will be maintained or improved as necessary to maintain the presence of perennial water for wildlife. New wildlife waters, including in new locations, may be constructed if necessary to replace old wildlife waters, restore, or enhance native wildlife populations and for improving wildlife distributions. All wildlife water projects will be evaluated through the NEPA analysis to determine necessity and effects.” Decision WF-23 on pg. 20.

“The BLM will manage all wildlife habitats with the objective to conserve native species for sustainable public benefits.” WF-2 pg. 17

“Wildlife habitat improvement projects will be implemented where necessary to stabilize or improve degraded or declining wildlife habitat conditions.” WF-17 pg. 19

“The administrative use of motorized/mechanized equipment for natural and cultural resource management will be allowed. Administrative activities include, but are not limited to, water supplementation, collar retrieval, and capture/release of wildlife, maintenance/repair and reconstruction or construction of wildlife waters. Cross-country travel for administrative purposes will be permitted only with prior approval by the authorized officer. Any administrative actions will be conducted in a manner that creates the least disturbance and reclaimed as soon as possible after the administrative need has ended.” Decision WC-5 pg 123.

2.5 Relationship to Statutes, Regulations, or Other Plans

The following section outlines statutes, regulations, and other requirements that apply to the Proposed Action.

National Environmental Policy Act (NEPA)

Any action conducted on federally-administered lands or an action that utilizes federal dollars must be evaluated to determine if significant economic, social, or environmental effects may occur as a result of the Proposed Action. The assessment of the Proposed Action must also identify a reasonable range of Action Alternatives and the associated environmental effects of the Actions.

Federal Land Policy and Management Act (FLPMA)

The BLM is mandated by the Federal Land Policy Management Act of 1976 to manage for multiple uses on BLM-administered lands. Land use planning is based on multiple use and sustained yield principles. This includes grazing, mining, land sales, acquisitions, and exchanges.

The Federal Land Policy and Management Act (FLPMA) of 1976 (Public Law 94-579) require that the Secretary of the Interior regulate mining operation to prevent undue or unnecessary degradation of the public lands.

Clean Water Act

Section 313 of the Clean Water Act of 1972 requires federal agencies be in compliance with all federal, state, interstate, and local requirements. In Arizona, the Arizona Department of Environmental Quality (ADEQ) implements the Clean Water Act.

Migratory Birds

Executive Order 13186 expressly requires that Federal agencies evaluate the effects of proposed actions on migratory birds (including eagles) pursuant to the NEPA “or other established environmental review process;” restore and enhance the habitat of migratory birds, as practicable; identify where unintentional take reasonably attributable to agency actions is having, or is likely to have, a measurable negative effect on migratory bird populations; and, with respect to those actions so identified, the agency shall develop and use principles, standards, and practices that would lessen the amount of unintentional take, developing any such conservation efforts in cooperation with the United States Fish and Wildlife Service (USFWS).

Cultural Resource Laws and Executive Orders

BLM is required to consult with Native American tribes to “help assure (1) that federally recognized tribal governments and Native American individuals, whose traditional uses of public land might be affected by a proposed action, will have sufficient opportunity to contribute to the decision, and (2) that the decision maker will give tribal concerns proper consideration” (U.S. Department of the Interior, BLM Manual Handbook H-8120-1). Tribal coordination and consultation responsibilities are implemented under laws and executive orders that are specific to cultural resources which are referred to as “cultural resource authorities,” and under regulations that are not specific which are termed “general authorities.” Cultural resource authorities include: the National Historic Preservation Act of 1966, as amended (NHPA); the Archaeological Resources Protection Act of 1979 (ARPA); and the Native American Graves Protection and Repatriation Act of 1990, as amended (NAGPRA). General authorities include: the American Indian Religious Freedom Act of 1979 (AIRFA); the National Environmental Policy Act of 1969

(NEPA); the Federal Land Policy and Management Act of 1976 (FLPMA); and Executive Order 13007-Indian Sacred Sites. The proposed action is in compliance with the aforementioned authorities.

This action is also consistent with AGFD's Wildlife 20/20 Strategic Plan. Wildlife 20/20 calls for AGFD to mitigate habitat fragmentation to improve wildlife populations.

3.0 AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES

This section describes the existing conditions of the affected environment. Those resources that have been identified by an interdisciplinary team as present and potentially impacted are discussed below.

3.1 Invasive or Non-Native Species

Affected Environment

The project area, within Lower Sonoran Desertscrub, is dominated by white bursage (*Ambrosia dumosa*) and creosotebush (*Larrea tridentate*). Within drainage areas, ironwood (*Olneya tesota*), blue palo verde (*Cercidium floridum*), honey mesquite (*Prosopis glandulosa*), as well as other shrubs and grasses, are more prevalent. Currently, no non-native plant species have been observed at the project site.

Environmental Consequences

Proposed Action

Non-native invasive plants could possibly be transported to the project sites by construction equipment. The area to be dug with hand tools will be disturbed temporarily allowing invasive species that prefer disturbed habitat to potentially occur.

No Action Alternative

Under the No Action Alternative, vegetation would not be disturbed because the catchment would not be improved.

3.2 Threatened and Endangered Species

Affected Environment

No Federally designated threatened or endangered species are known to occur within the proposed project area. Special status species, those either listed by the U.S. Fish and Wildlife Service (USFWS), on the BLM sensitive species list or on the AGFD list of Wildlife of Special Concern in Arizona (AGFD 1996 in prep.) may occur in the project area. However, no evidence of these species has been observed at the project site.

The Sonoran population of desert tortoise (*Gopherus morafkai*), may occur within 3 miles of the project area and impacts to this species is evaluated because it is currently listed as a candidate species by the USFWS. The proposed project is located in category III desert tortoise habitat.

California leaf-nosed bat (*Macrotis californicus*), is the only other species of concern known to occur within three miles of the project area.

Other sensitive species in the area that may occur in the vicinity:
Gila monster (*Heloderma suspectum*)

Chuckwalla (*Sauromalus obesus*)
Arizona Toad (*Bufo microscaphus microscaphus*)
Western burrowing owl (*Athene cunicularia hypugena*)
Ferruginous hawk (*Buteo regalis*)
Pale Townsend's big-eared bat (*Corynorhinus townsendii*)
Yuma myotis (*Myotis yumanensis*)
Cave myotis (*Myotis velifer*)
Spotted Bat (*Euderma maculatum*)

There are no known populations of sensitive plant species found within the project area.

Environmental Consequences

Proposed Action

There would be no expected impacts to threatened and endangered wildlife and plants, because they are not present in the project area. Desert tortoise may be temporarily displaced for the 3 days during construction of the additional collection point. No active tortoise dens are located in the project area. Future disturbance from water hauling activities would be reduced.

No Action Alternative

No habitats of threatened, endangered, or special status species would be affected under the No Action Alternative because the catchment would not be improved. Helicopter intrusions to fill the tank would continue to occur, possibly causing temporary disturbances to special status species. Disturbance would be short-term lasting approximately 4-5 hours per filling.

3.3 Wilderness

Affected Environment

This development site is located within the Gibraltar Mountain Wilderness Area. The proposed site is within 1.5 miles of the wilderness boundary and within 200' of the existing development. The entire project is estimated to take approximately 3 days to complete, sometime between January 1 and April 1, 2014. Volunteer camping and staging of materials would take place at a campsite outside wilderness. All volunteers and materials will be hiked in from the wilderness boundary. Construction of this development would greatly diminish or eliminate any future water hauling via helicopter to the existing Red Cliff tank and therefore diminish or eliminate wilderness intrusions.

Environmental Consequences

Proposed Action

The proposed action will enhance wildlife populations to preserve the naturalness by increasing efficiency of the Red Cliff wildlife water and reduce impacts from supplemental water hauling. The additional diversion will be blended to the landscape to minimize visual impacts. Hand tools will be used to minimize disturbance.

No Action Alternative

The wilderness characteristics will be maintained at current level however impacts to naturalness will be temporarily impeded by supplemental water hauls via helicopter every other year.

3.4 Wildlife

Affected Environment

Four big game species occur within the Buckskin Mountains: desert bighorn sheep, mule deer, mountain lion and javelina. Four common species of small game are found throughout the area in desert washes and palo verde-mixed cacti habitats: Gambel's quail (*Callipepla gambelii*), white-winged dove (*Zenaida asiatica*), mourning dove (*Z. macroura*) and desert cottontail rabbit (*Sylvilagus auduboni*). Furbearers found in the plan area include bobcat (*Lynx rufus*), ringtail (*Bassariscus astutus*), gray fox (*Urocyon cinereoargenteus*), kit fox (*Vulpes macrotis*), and coyote (*Canis latrans*). Other common mammal species include kangaroo rat (*Dipodomys* spp.), pocket mouse (*Perognathus* spp.), white-throated woodrat (*Neotoma albigula*), black-tailed jackrabbit (*Lepus californicus*), and Harris's antelope ground squirrel (*Ammospermophilus harrisi*). Common bird species are red-tailed hawk (*Buteo jamaicensis*), black-throated sparrow (*Amphispiza bilineata*), cactus wren (*Campylorhynchus brunneicapillus*), greater roadrunner (*Geococcyx californianus*), Gila woodpecker (*Melanerpes uropygialis*), verdin (*Auriparus flaviceps*), and black-tailed gnatcatcher (*Polioptila melanura*). Reptiles and amphibians include: sidewinder rattlesnake (*Crotalus cerastes*), speckled rattlesnake (*Crotalus mitchelli*) western diamondback rattlesnake (*C. atrox*), kingsnake (*Lampropeltis getula*), Sonoran gophersnake (*Pituophis melanoleucus affinis*), rosy boa (*Charina trivirgata*), western whiptail lizard (*Cnemidophorus tigris*), desert iguana (*Dipsosaurus dorsalis*), zebra-tailed lizard (*Callisaurus draconoides*), side-blotched lizard (*Uta stansburiana*), Gila monster (*Heloderma suspectum*), red-spotted toad (*Bufo punctatus*), spadefoot toads (*Scaphiopus* spp.), Arizona toad (*Bufo alvarius*), and Great Plains toad (*B. cognatus*).

Environmental Consequences

Proposed Action

The redevelopment of the existing water source would continue to provide a reliable source of water for wildlife in the vicinity of this water. This may lead to improved habitat characteristics for wildlife populations within the Buckskin Mountains.

The proposed action meets some of the goals identified by the Gibraltar Mountain Interdisciplinary Management Plan and Environmental Assessment (March 2001) which includes 'maintaining fully functional wildlife water developments, maintain bighorn sheep habitat continuity, and sustaining and enhancing viable populations.' There may be a temporary displacement of wildlife due to human activity at the site during the construction period.

All species currently using the existing water catchment may be impacted by the inability to access the water source during the three day construction period. Upon project completion, the perennial water source will be available to all species. This project will improve reliability of water collection and long-term availability of water. Prey species are not expected to be impacted by increased predator attacks. Lack of thick vegetation and nearby rock ledges limits the likelihood of increased predator attacks at this location.

No Action Alternative

Under the No Action Alternative, wildlife would not be disturbed by human presence or noise associated with the redevelopment activities. Red Cliff would continue to be monitored and water hauled on an as-needed basis, possibly disturbing wildlife more frequently and during the period of greatest stress to the animals. Disturbance would be short-term lasting approximately 4-5 hours per filling.

4.0 MITIGATING MEASURES FOR THE PROPOSED ACTION

1. "Pack it in Pack it Out!" All trash and debris caused by the activity shall be removed. All litter, trash, and garbage shall be controlled by placing refuse in predator-proof, sealable receptacles and removing the debris regularly from the worksite.
2. Care shall be taken not to disturb or destroy desert tortoises or their burrows. Handling, collecting, damaging, or destroying desert tortoises are prohibited by Arizona State Statute. Any sightings of desert tortoise shall be immediately reported to the LHFO, Wildlife Biologist at (928) 505-1200. If a desert tortoise is endangered by any activity that activity shall cease until the desert tortoise moves out of harm's way on its own accord or is moved following the attached guidelines "Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects."
3. If a vehicle is left for any occasion the driver shall inspect underneath any parked vehicles immediately prior to moving the vehicles. If a desert tortoise is beneath the vehicle, the authorized biologist shall move the tortoise from harm's way. Alternatively, the vehicle shall not be moved until the tortoise has left of its own accord.
4. All wildlife and migratory birds shall be observed from a distance. Any injured wildlife shall be reported to Arizona Game & Fish Department at (928) 342-0091.
5. Harassment of wildlife or destruction of private and public improvements, such as fences and gates, is prohibited. The taking of any threatened or endangered plant or animal is prohibited.
6. Participants will be prohibited from approaching Bighorn Sheep on foot or by vehicle.
7. State protected plant species (all cactus, ocotillo, and native trees) shall be avoided. If they cannot be avoided they will be salvaged and replanted during reclamation. The operator shall report all State protected species destroyed or damaged to the Lake Havasu Field Office Biologist at (928) 505-1200.
8. All personnel should report any sightings of desert tortoise, bighorn sheep, and other wildlife species to the LHFO Biologist.
9. In the event of an inadvertent discovery of archaeological or historical cultural resources, the BLM Lake Havasu Field Office would be notified immediately. All activity in the discovery area would cease until an evaluation of the discovery is made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.

5.0 CUMULATIVE EFFECTS

5.1 Introduction

Cumulative effects are the impacts on the environment that may result from the incremental effect of the Proposed Action or No Action alternative in combination with other past, present, and reasonably foreseeable future actions (RFFA) on BLM-administered lands, as well on those lands under other jurisdictions that are adjacent to or within BLM boundaries. Cumulative effects must consider the likely impact of the Proposed Action or No Action alternative when combined with these additional actions. This section describes the cumulative effects of those resources/concerns identified in Section 3 as present and/or potentially affected. The project area is completely within the Gibraltar Mountain Wilderness Area, therefore will act as the Cumulative Impact Analysis Area (CIAA).

5.2 Past, Present, and Reasonably Foreseeable Future Actions

Historically, the Red Cliff wildlife water was constructed in 1990 and the Gibraltar Mountain Wilderness was established in 1990. The three sausage tanks at Red Cliff were replaced with a ring tank. Lamb Springs, which is located approximately two miles to the north, was developed in 1960 and Giers wildlife water, which was constructed in 1962, is approximately two and a half miles to the northeast. Both are in the Buckskin Mountains. The Gibraltar Tunnel catchment, located approximately four miles southeast of the project area, was established in 1980 and is also located within the Gibraltar Mountain Wilderness. These past projects along with other existing wildlife waters in the area have maintained bighorn sheep at their current population levels and provide water to other wildlife in the vicinity. Invasive species have been removed or reduced when found at project locations.

Currently, this wildlife water is the only one maintained by AGFD in the Gibraltar Mountain Wilderness. Temporary disturbance of wildlife occurs when hauling water approximately every other year from the CAP canal via helicopter. This cumulative effect would continue if the proposed project is not implemented. If the proposed project is implemented the need for future water hauling via helicopter would be reduced if not eliminated. No other proposed actions in this area are anticipated to occur within the next five years. At this time, no future developments are expected within the CIAA.

5.3 Cumulative Effects

Since the Wilderness Area designation in 1990, actions and potential impacts have been minimized or eliminated within the CIAA for the benefit of the natural environment, as well as primitive and unconfined recreation. Past, present, and RFFA are minimal compared to the development of surrounding urban areas such as Parker and Lake Havasu City.

5.3.1 Invasive & Non-Native Species

Actions potentially inviting invasive and non-native species into the CIAA have been limited or eliminated due to the Wilderness Area designation. Cumulatively, the Proposed Action would provide an avenue for invasive species establishment during construction, but design features and mitigation measures limit this potential. No cumulative impact for invasive and non-native species is expected.

5.3.2 Threatened & Endangered Species

The CIAA is entirely classified as Category III tortoise habitat. Although there have been documented sightings of desert tortoise within and around the CIAA, the majority of these sightings are located at the southern end or on the outskirts of the CIAA. The designation of the Gibraltar Mountain Wilderness area has limited development projects in the Buckskin Mountains. The Proposed Action, along with past and RFFAs, is not expected to impact the Sonoran desert tortoise, a candidate species.

5.3.3 Wilderness

Past developments within the Gibraltar Mountain Wilderness Area have included two wildlife water sites. Over time, continued use and maintenance of these sites has led to periodic water deliveries via helicopter. The Proposed Action would reduce the need to this type of intrusion into the Wilderness, therefore improving primitive recreation opportunities. The Proposed Action, along with past and RFFAs, is not expected to impact the Gibraltar Mountain Wilderness Area.

5.3.4 Wildlife

Past development outside the CIAA, including the construction of State Highway 95, has led to the development of wildlife water catchments throughout the Buckskin Mountains. These catchments,

including the Red Cliff site, have provided access to a perennial water source for a variety of species. These actions have improved habitat suitability for game species, including the Bighorn Sheep, throughout the Buckskin Mountain range. The Proposed Action would allow for improved efficiency of water collection and continued use of the Red Cliff catchment, therefore sustaining important habitat characteristics into the future.

6.0 TRIBES, INDIVIDUALS, ORGANIZATIONS OR AGENCIES CONSULTED

Fort Mojave Indian Tribe
Arizona Game and Fish Department
Bureau of Land Management- Lake Havasu Field Office
Desert Bighorn Sheep Society

7.0 REFERENCES

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APPENDICES

Appendix A – Stipulations

1. “Pack it in Pack it Out!” All trash and debris caused by the activity shall be removed. All litter, trash, and garbage shall be controlled by placing refuse in predator-proof, sealable receptacles and removing the debris regularly from the worksite.
2. Care shall be taken not to disturb or destroy desert tortoises or their burrows. Handling, collecting, damaging, or destroying desert tortoises are prohibited by Arizona State Statute. Any sightings of desert tortoise shall be immediately reported to the LHFO, Wildlife Biologist at (928) 505-1200. If a desert tortoise is endangered by any activity that activity shall cease until the desert tortoise moves out of harm’s way on its own accord or is moved following the attached guidelines “Guidelines for Handling Sonoran Desert Tortoises Encountered on Development Projects.”
3. If a vehicle is left for any occasion the driver shall inspect underneath any parked vehicles immediately prior to moving the vehicles. If a desert tortoise is beneath the vehicle, the authorized biologist shall move the tortoise from harm’s way. Alternatively, the vehicle shall not be moved until the tortoise has left of its own accord.
4. All wildlife and migratory birds shall be observed from a distance. Any injured wildlife shall be reported to Arizona Game & Fish Department at (928) 342-0091.
5. Harassment of wildlife or destruction of private and public improvements, such as fences and gates, is prohibited. The taking of any threatened or endangered plant or animal is prohibited.
6. Participants will be prohibited from approaching Bighorn Sheep on foot or by vehicle.
7. State protected plant species (all cactus, ocotillo, and native trees) shall be avoided. If they cannot be avoided they will be salvaged and replanted during reclamation. The operator shall report all State protected species destroyed or damaged to the Lake Havasu Field Office Biologist at (928) 505-1200.
8. All personnel should report any sightings of desert tortoise, bighorn sheep, and other wildlife species to the LHFO Biologist.
9. In the event of an inadvertent discovery of archaeological or historical cultural resources, the BLM Lake Havasu Field Office would be notified immediately. All activity in the discovery area would cease until an evaluation of the discovery is made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values.