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

ENVIRONMENTAL ASSESSMENT

DOI-BLM-AZ-C020-2017-0012-EA

Calhoun Allotment
Range Improvement Project
on
Bureau of Land Management Administered Public Lands

La Paz County, Arizona

Yuma Field Office
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Prepared by: Kathryn Olson
Date: Insert Date Signed

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1. INTRODUCTION

1.1 Project Background

The Bureau of Land Management (BLM) Yuma Field Office (YFO) manages livestock grazing in both the YFO planning area and the Lake Havasu Field Office (LHFO) planning area. The grazing permittee on the Calhoun allotment has requested the construction of a groundwater well and corral within the allotment. The form for Rangeland Improvement Project Notification and Assistance Request for 8100 Program Funding was received by the YFO in February 2016. The well and corral would be adjacent to a road on a previously disturbed Expired Mineral Materials gravel pit associated with Case File number AZA 35586. The proposed improvement would provide a water source on the east side of the allotment, allowing an even distribution of cattle for grazing.

1.2 Project Location

The proposed water well would be located in the NE¼NE¼ of section 29, T5N R14W in La Paz County, Arizona on Bureau of Land Management administered public lands.

1.3 Purpose and Need for the Proposed Action

The purpose of the action is to provide the permittee with a cooperative agreement allowing the permittee to construct a new groundwater well and corral within the allotment.

The need for the action is established by the BLM, for and in consideration of the mutual benefits hereunder, and in accordance with the Taylor Grazing Act (43 U.S.C. 315c), as amended, which allows for cooperative agreement for the construction and/or maintenance of range improvements, installation of conservation works, or establishment of conservation practices, hereinafter referred to collectively as improvements, for the benefit of the public lands and of the cooperator(s).

1.4 Decision to be Made

The decision to be made is whether to authorize the proposed action, or not.

1.5 Conformance with Land Use Plan

The proposed action is in conformance with the YFO Resource Management Plan (RMP), approved January 2010, and with the LHFO RMP, approved May 2007.

The proposed action is in conformance with the YFO RMP because it is specifically provided for in the following RMP decision(s):

GM-011: Authorize and maintain range improvement projects in accordance with grazing regulations and policies.

The proposed action is in conformance with the LHFO RMP because it is specifically provided for in the following RMP decision(s):

GM-2: Livestock use and associated management practices will be conducted in a manner consistent with other multiple use needs and objectives to ensure that the health of rangeland resources is preserved or improved so that they are productive for all rangeland values. Where needed, public rangeland ecosystems will be improved to meet objectives.

1.6 Scoping and Issues

On September 12, 2016 an Information for Planning and Conservation resource report was

completed to identify any potential threatened and endangered species. The report did not identify any threatened and endangered species within 5 miles of the project site, and therefore threatened and endangered species will not be discussed in this assessment.

2. PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

Under the Proposed Action, the grazing permittee would construct a groundwater well, corral, and fence within the Calhoun allotment. Currently, cattle grazing on the Calhoun allotment are limited to the west side because the only water sources are located on that side. The proposed improvement would provide a water source on the east side of the allotment, allowing for an even distribution of cattle for grazing. The even distribution will improve the public's land by providing an opportunity for growth and reproduction of plant species needed to reach desired plant community objectives, meeting the Arizona Guidelines for Grazing Administration's Land Health Standard 3.

The well installation would be contracted using an Arizona Department of Water Resources (ADWR) Certified Well Driller. The permittee will need to purchase and apply for any permits pertaining to the well through the State of Arizona. Copies of permits will be provided to the BLM prior to allowing the construction of the rangeland improvement. The well would be approximately 400 feet deep and cased with plastic casing. There would be a submersible pump run by a generator with plastic pipe.

The grazing permittee would install the corral and fencing himself which would meet BLM standards. The corral would be a rectangle 100 feet long by 110 feet wide. The loading chute and alley would be built using 2-by-12 lumber and railroad ties. Livestock pens would be woven wire with pipe posts.

Two segments of type "A" fencing 100 feet long would extend perpendicularly from the south corners of the corral. A type "A" fence is a 42-inch high, four wire strand, wildlife passable fence. Wire heights from the ground up would be 16-22-30-42 inches. As recommended by AGFD and BLM wildlife specifications, the bottom strand would consist of twisted barbless wire to facilitate pronghorn passage. The other three strands would be barbed wire. The fence would have 16 ½ -foot spacing between steel posts with 2 metal stays between posts. Wooden braces would be installed at each end of the fence.

2.1.1 Best Management Practices

The following best management practices (BMPs) are included in the proposed action in an effort to minimize the impacts of the proposed action to social and natural environmental resources. The following are practices to be implemented along the pathway of the fence:

1. Post signage during improvement activities to warn public of associated risks.
2. Construction would be limited to daylight hours to minimize impacts to wildlife.
3. Construction activities would be limited to periods when the soil and ground surface are not wet in order to avoid soil compaction.
4. Construction activities would be conducted in a manner that would minimize disturbance to existing vegetation by limiting vegetation thinning and restricting construction

activities to a 15 foot wide path.

5. Soil disturbance associated with construction activities would be limited to the immediate vicinity of the improvement.
6. During construction vehicular traffic would be restricted to existing roads and in the immediate vicinity of the improvement. No cross country travel is authorized.
7. At no time would vehicle or equipment fluids (including motor oil and lubricants) be dumped on public lands. All accidental spills would be reported to the Yuma Field Office and be cleaned up immediately, using best available practices and requirements of the law, and disposed of in an authorized disposal site. All spills of federally or state listed hazardous materials which exceed the reportable quantities would be promptly reported to the appropriate state agency and the authorized officer.
8. Vehicles and equipment would be power washed off-site before construction activities begin to minimize the risk of spreading noxious weeds. If vehicles or equipment are removed from the site during construction activities for any reason, then they will be re-washed prior to being brought back to the construction site. The project area would be monitored for noxious weeds for two years following completion of the project.
9. The project site would be cleaned up at the end of each day the work is being conducted (e.g., trash removed, scrap materials picked up). BLM staff may conduct site visits to the area to ensure adequate cleanup measures are taken.
10. Any cultural (historic/prehistoric site or object) or paleontological resource (fossil remains of plants or animals) discovered on-site would immediately be reported to the Yuma Field Office Manager or designee. All operations in the immediate vicinity of the discovery shall be suspended until written authorization to proceed is issued. An evaluation of the discovery shall be made by a qualified archaeologist or paleontologist to determine appropriate actions to prevent the loss of significant cultural or scientifically important paleontological values.
11. If in connection with this work any human remains, funerary objects, sacred objects, or objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (Public Law 101-601; 104 Stat. 3048; 25 U.S.C. 3001) are discovered, operations in the immediate area of the discovery would stop, the remains and objects would be protected, and the BLM would be immediately notified. The immediate vicinity of the discovery would be protected until notified by the Yuma Field Office Manager that operations may resume.
12. No hazing or harassment of wildlife is permitted

2.2 No Action Alternative

Under the No-Action Alternative, there would be no authorization for the permittee to construct a groundwater well and corral within the Calhoun allotment.

2.3 Relationship to Statutes, Regulations, or Other Plans

The proposed action is in accordance with the Taylor Grazing Act (43 U.S.C. 315c), as amended, which allows for cooperative agreement for the construction and/or maintenance of range improvements, installation of conservation works, or establishment of conservation practices for the benefit of the public lands and of the cooperator(s).

The proposed action will follow rules and regulations outlined by ADWR in the Arizona Revised Statutes, Chapter 45, Article 10.

3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

This section describes the existing conditions of the affected environment and the environmental consequences of each alternative on that environment. The table below summarizes the resources and concerns reviewed for this project. Resources present within the project areas which may be potentially affected will be addressed further in this Environmental Assessment. Those resources that have been identified by an interdisciplinary team as present and not affected are discussed below.

3.1 Resources / Concerns

The following table is a list of resources/concerns that are considered in this Environmental Assessment.

PROJECT RESOURCE REVIEW				
Resources & Programs Considered	**Present and/or Potentially Affected**	**Present and Not Affected**	**Not Present**	**Rationale**
Air Quality	x			See Section 3.1.1
Areas of Critical Environmental Concern			x	
Climate Change	x			See Section 3.1.2
Cultural Resources, Native American Religious Concerns & Paleontological Resources			x	
Environmental Justice	x			See Section 3.1.3
Farmlands (Prime or Unique)			x	
Floodplains			x	
Fuels/Fire Management			x	
Human Health & Public Safety		x		Measures to mitigate health and safety issues have been built into the proposed action (see Section 2.1.1).
Lands & Realty	x			See Section 3.1.4
Livestock Grazing	x			See Section 3.1.5
Migratory Birds	x			See Section 3.1.6
Minerals			x	
Recreation	x			See Section 3.1.7

Socioeconomics	x			See Section 3.1.8
Soils	x			See Section 3.1.9
Threatened or Endangered Species			x	
Travel Management			x	
Vegetation	x			See Section 3.1.10
Visual Resources		x		The project area is within a Class IV Visual Resource Management area. The objective of this class is to provide for management activities that require major modification of the existing character of the landscape.
Wastes (Hazardous or Solid)		x		Measures to prevent spills of hazardous materials have been built into the proposed action (See Section 2.1.1).
Weeds (Invasive & Non Native)	x			See Section 3.1.11
Wetlands/Riparian Zones			x	
Wild & Scenic Rivers			x	
Wild Horses/Burros			x	
Wilderness			x	
Wildlife	x			See Section 3.1.12

3.1.1 Air Quality

Affected Environment

The project site is not in a PM10 nonattainment area.

Environmental Consequences of Proposed Action

Equipment operation will temporarily generate airborne dust in the immediate vicinity of the project site. After improvements are installed, there will be no adverse effect to air quality.

Environmental Consequences of No Action Alternative

There will be no changes to air quality at project sites.

3.1.2 Climate Change

Affected Environment

Climate change refers to the shifts in Earth's long-term (decades to millennia) weather patterns as a result of changes to the concentrations of greenhouse gases in Earth's atmosphere. A greenhouse gas is a gas that traps heat when emitted into Earth's atmosphere. There has been a marked increase in atmospheric concentration of greenhouse gasses since the start of the industrial age, contributing to observed climatic variability beyond the historic norm.

Environmental Consequences of Proposed Action

As a result of equipment operation, greenhouse gasses, namely carbon monoxide and carbon dioxide, will be emitted during the installation of improvements. The quantity of greenhouse gases emitted will be negligible, minimally contributing to climate change.

Environmental Consequences of No Action Alternative
There will be no changes to climate change at project sites. No greenhouse gasses will be emitted.

3.1.3 Environmental Justice

Affected Environment
Executive Order 12898 on Environmental Justice directs that Federal programs, policies, and activities will not have a disproportionately high and adverse human health and environmental effect on minority and low-income populations. According to The Census, there are low-income populations located nearby in Vicksburg, Arizona and present within all of La Paz County, Arizona.

Environmental Consequences of Proposed Action
The improvement will have no adverse effect to minority and low-income populations.

Environmental Consequences of No Action Alternative
There will be no changes to the current effects on minority and low-income populations.

3.1.4 Lands and Realty

Affected Environment
The proposed action conforms to the objectives and requirements of the relevant land use plans that cover the federal lands crossed by the project. There are Right-of-Ways (ROW) located in the same section of land as the proposed action.

Environmental Consequences of Proposed Action
The improvement will have no adverse effect on the ROWs.

Environmental Consequences of No Action Alternative
There will be no changes to the current effects on lands and realty resources.

3.1.5 Livestock Grazing

Affected Environment
The proposed project area is within the Calhoun allotment. Cattle are allowed to graze the allotment on a yearlong basis. The total allotted number of annual unit month (AUM) for the Calhoun allotment is 1,728.

Environmental Consequences of Proposed Action
The improvement project will allow for a more even distribution of cattle grazing on the allotment. Grazing will be more productive. There will be no adverse effects on livestock grazing.

Environmental Consequences of No Action Alternative
There will be no changes to the current effects on livestock grazing.

3.1.6 Migratory Birds

Affected Environment

Migratory bird season is from September 1st – February 28th. Migratory bird species are found in the Sonoran Desert in riparian and desert habitats.

Environmental Consequences of Proposed Action

If constructed during migratory bird season, temporary noise from the drilling process will negatively impact migratory birds. There may be a decrease in bird abundance and an altogether avoidance of the improvement area during construction. There will be no long term adverse effects on migratory birds.

Environmental Consequences of No Action Alternative

There will be no changes to the current effects on migratory birds.

3.1.7 Recreation

Affected Environment

Recreationalists in Vicksburg and other nearby towns enjoy outdoor activities including off highway vehicle (OHV) use, hiking, hunting, rock hounding, and dry washing. Many of these recreationalists depend on vehicles to enjoy these recreation activities.

Environmental Consequences of Proposed Action

An increase of cattle in the area is expected to increase with the new accessibility to water. This can be an obstacle to OHV drivers if cattle are crossing dirt roads.

Environmental Consequences of No Action Alternative

There will be no changes to the current effects on recreation.

3.1.8 Socioeconomics

Affected Environment

The Census estimated the population of Vicksburg to be 597 as of 2014 with a mean household income of $36,488, lower than the average U.S income.

Environmental Consequences of Proposed Action

Materials will be purchased from a vendor in Vicksburg, generating income for that surrounding community. There will be no adverse effects on the socioeconomics of communities located near improvements.

Environmental Consequences of No Action Alternative

There will be no changes to the socioeconomics of communities located near improvements.

3.1.9 Soils

Affected Environment

Soils are associated with the Gunsight family-Pinamt complex, comprised of extremely gravelly loam down to alluvium, the bedrock parent material (Natural Resource Conservation Service). The area is flat with no slope and has been previously disturbed.

Environmental Consequences of Proposed Action

Construction activities would be limited to periods when the soil is dry; soil compaction in the project area is not anticipated to occur. After one or two years the original vegetation should be regrown, protecting soil on-site from erosion.

Environmental Consequences of No Action Alternative
There will be no changes to the current effects on soils.

3.1.10 Vegetation

Affected Environment
The vegetation of the project sites is characteristic of the Lower Colorado River Valley subdivision of the Sonoran Desertscrub biome. Major vegetative components include Creosotebush (*Larrea tridenta*), White Bursage (*Ambrosia dumosa*), Ocotillo (*Fouquieria splendens*), Brittlebush (*Encelia farinose*), Foothill Paloverde (*Parkinsonia microphyllum*), Saguaro (*Carnegiea gigantean*), and Ironwood (*Olneya tesota*) (Brown 1982). The area has been previously disturbed and vegetation is scarce to none.

Environmental Consequences of Proposed Action
There are no adverse consequences expected to vegetation. Vegetation surrounding the improvement site will be avoided during construction.

Environmental Consequences of No Action Alternative
There will be no changes to the current effects on vegetation.

3.1.11 Weeds (Invasive & Non Native)

Affected Environment
Although there are no invasive and/or non-native weeds present at the project site, Sahara Mustard (*Brassica tournefortii*) is present in the surrounding area.

Environmental Consequences of Proposed Action
Measures to prevent the spread of invasive and noxious weeds have been built into the proposed action. No impacts from the proposed action are therefore anticipated.

Environmental Consequences of No Action Alternative
There will be no changes to the current effects on weeds.

3.1.12 Wildlife

Affected Environment
A report was generated using Arizona's Heritage Data Management System to identify common species present within the project area (Arizona Game and Fish Department).

Common mammal species found within and around the project area are mule deer (*Odocoileus hemionus*), mountain lion (*Puma concolor*), desert cottontail rabbit (*Sylvilagus auduboni*), pocketed freetailed bat (*Nyctinomops femorosaccus*), Yuma myotis bat (*Myotis yumanensis*), bobcat (*Lynx rufus*), ringtail (*Bassariscus astutus*), gray fox (*Urocyon cinereoargenteus*), kit fox (*Vulpes marcrotis*), coyote (*Canis latrans*), 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 Gambel's quail (*Callipepla gambelii*), white-winged dove (*Zenaida asiatica*), mourning dove (*Z. marcroura*), 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*).

Common reptile species include sidewinder rattlesnake (*Crotalus cerastes*), speckled rattlesnake (*C. mitchelli*), western diamondback rattlesnake (*C. atrox*), kingsnake (*Lampropeltis getula*), Sonoran gophersnake (*Pituophis melaoleucus affinis*), rosy boa (*Charina trivirgata*), western whiptail lizard (*Cnemidophorus tigris*), desert iguana (*Dipsosaurus dorsalis*), zebra-tailed lizard (*Callisaurus draconoides*), and side-blotched lizard (*Uta stansburiana*).

BLM sensitive species found within and around the project area are gilded flicker (*Colaptes chrysoides*), Le Conte's thrasher (*Toxostoma lecontei*), California leaf-nosed bat (*Macrotus californicus*), cave myotis bat (*Myotis velifer*), greater western mastiff bat (*Eumops perotis*), pale Townsend's big eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), Gila monster (*Heloderma suspectum*), and Sonoran desert tortoise (*Gopherus morafkai*).

Additionally, the project area has been classified as Category III Sonoran desert tortoise habitat.

Environmental Consequences of Proposed Action
Individual tortoises may be impacted by the placement of corral and fence posts into the ground and during drilling activities, since they are in torpor during late fall and winter months.

The fence would present a long-term obstacle for mule deer and pronghorn to navigate. Since the fence is being built to wildlife specifications, these species should be able to pass over or under it with little difficulty.

Environmental Consequences of No Action Alternative
There will be no changes to the current effects on wildlife.

4. Cumulative Impacts

Cumulative impacts are the combined effect of past projects, specific planned projects, and other reasonably foreseeable future actions within the project area to which range improvements may add incremental impacts. This includes all non-ranching actions that may occur in the area including foreseeable non-federal actions.

The combination of all land use practices across a landscape has the potential to change the visual character, disrupt natural water flow and infiltration, disturb cultural sites, cause minor increases in greenhouse gas emissions, fragment wildlife habitat and contaminate groundwater. However, the likelihood of these impacts occurring is minimized through standard mitigation measures and best management practices.

The impacts of the Proposed Action are not expected to cause unnecessary or undue degradation when added to past, present, and reasonably foreseeable future actions that affect these resources.

5. Mitigating Measures for the Proposed Action

Mitigation measures have been identified and incorporated into the installation of improvements. These measures include but are not limited to the following:

1. Post signage during improvement activities to warn public of associated risks.
2. Follow appropriate safety protocols during improvement activities.
3. Limit vehicle use to existing roads and trails.
4. Apply best management practices to minimize the potential to spread noxious weeds.
5. Avoid established vegetation in the improvement area as often as is feasible.
6. If spills from equipment operation should occur, waste will be cleaned up immediately and properly.
7. Any equipment maintenance or servicing will be conducted offsite.
8. Care shall be taken not to disturb or destroy desert tortoises or their burrows. Pursuing, shooting, hunting, trapping, killing, capturing, snaring or netting 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."
9. During construction, maintenance, and drilling activities, vehicles shall not exceed posted speed limits within project site. The area near and under all vehicles shall be inspected for desert tortoise before being moved.
10. All personnel will report any sightings of desert tortoise, bighorn sheep, and other BLM sensitive wildlife species and federally listed migratory birds (such as peregrine falcon, bald eagle, brown pelican, etc.) to the Lake Havasu Field Office, Wildlife Biologist at (928) 505-1200.
11. All wildlife and migratory birds shall be observed from a distance and not be pursued. Any injured wildlife shall be reported to Arizona Game & Fish Department at (928) 342-0091.
12. Any open pipes or plastic casings, even if uninstalled and laying on the ground, need to have caps placed on the ends to ensure that birds do not nest in those areas.
13. Allottee will be prohibited from approaching bighorn sheep on foot or by vehicle.
14. Removal of trees, saguaros, or BLM sensitive plant species on LHFO managed lands is not permitted.

La Paz County: *** = BLM Sensitive**

Blue Palo Verde	*Parkinsonia florida*
Desert Ironwood	*Olneya tesota*
Elephant Tree	*Bursera microphylla*
Foothill Palo Verde	*Parkinsonia microphyllum*
Kofa Mountain Barberry*	*Berberis harrisoniana*
Saguaro	*Carnegiea gigantea*
Scaly Stemmed Sandplant*	*Pholisma arenarium*
Screwbean Mesquite	*Prosopis pubescens*
Smoke Tree	*Psorothamnus spinosus*
Velvet Mesquite	*Prosopis velutina*
Western Honey Mesquite	*Prosopis glandulosa* var. *torreyana*

6. TRIBES, INDIVIDUALS, ORGANIZATIONS OR AGENCIES CONSULTED

On February 21, 2017 there was a field visit to the proposed Improvement site to conduct inventory with the following BLM LHFO and YFO personnel:

Kathryn Olson, Resources Intern (YFO)
Sheri Ahrens, Realty Specialist (LHFO)
Shari Ketcham, Wildlife Biologist (LHFO)
Caroline Kilbane, Outdoor Recreation Planner (LHFO)

A biological inventory was completed and nothing of significance was found in the immediate vicinity of the site.

On March 8, 2017 there was a field visit to the proposed Improvement site to conduct inventory with the following BLM YFO personnel:

Kathryn Olson, Resources Intern (YFO)
Jessica Han, Archaeologist (YFO)

An archaeological inventory was completed and nothing of significance was found in the immediate vicinity of the site.

7. REFERENCES

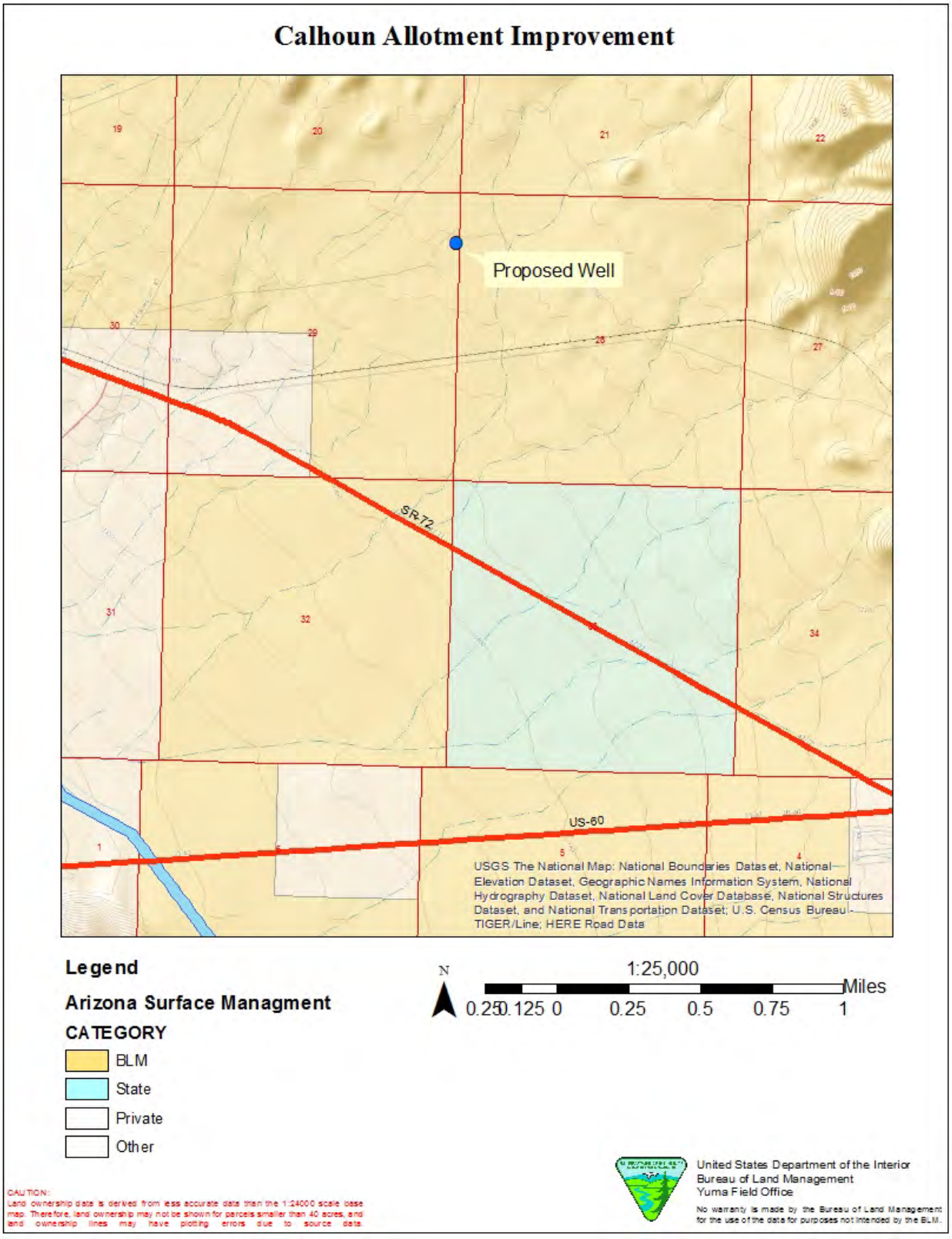
Arizona Game and Fish Department. (n.d.). Arizona's Natural Heritage Program:. Retrieved September 12, 2016, from http://www.azgfd.gov/w_c/edits/species_concern.shtml

Brown, D. E. (1982). *Biotic communities of the American Southwest, United States and Mexico* (Vol. 4). Tucson, Arizona: Published by University of Arizona for Boyce Thompson Southwestern Arboretum.

Natural Resource Conservation Service. (n.d.). Web Soil Survey. Retrieved September 8, 2016, from http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx

United States Census Bureau, (n.d.). Retrieved September 12, 2016, from http://www.census.gov/

8. Maps


Calhoun Allotment Improvement
Proposed Well
SR-72
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USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data
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United States Department of the Interior
Bureau of Land Management
Yuma Field Office
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Calhoun Corral Project

Compliance and assignment of responsibility (Type Program or Employee**):** Kathryn Olson

Monitoring and assignment of responsibility: (Type Program or Employee): Kathryn Olson

Review:

Prepared by: _____ _____
Kathryn Olson, YFO Date
Project Lead

Reviewed by: _____ _____
Arturo Lopez, YFO Date
Planning and Environmental Coordinator

Reviewed by: _____ _____
Tom Jones, YFO Date
Assistant Field Manager