United States Department of the Interior
Bureau of Land Management
Safford Field Office
Safford, AZ

Environmental Assessment
DOI-BLM-AZ-G010-2015-0002

Mesa Parada Pipeline

UNITED STATES DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

SAFFORD FIELD OFFICE

GRAHAM COUNTY, ARIZONA

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1 Introduction

1.1 Identifying Information

Title: Mesa Parada Pipeline

EA Number: DOI-BLM-AZ-G010-2015-0001

Type of Project: Range Improvement Installation

Name and Location of Preparing Office:
Bureau of Land Management (BLM) Safford Field Office; Safford, Arizona

General Location: Approximately 18 miles southeast of St. Johns, Apache County, Arizona. Township 12 North, Range 31 East, Section 15 of the Gila and Salt River Base Meridian.

1.2 Introduction

This Environmental Assessment (EA) has been prepared to disclose and analyze the environmental consequences of the Mesa Parada Pipeline project as proposed by the BLM Safford Field Office.

The EA is a site-specific analysis of potential impacts that could result with the implementation of a proposed action or alternatives to the proposed action. The EA assists the BLM in project planning and ensuring compliance with the National Environmental Policy Act (NEPA), and in making a determination as to whether any "significant" impacts could result from the analyzed actions ("significance" is defined by NEPA and is found in regulation 40 CFR 1508.27). An EA provides evidence for determining whether to prepare an Environmental Impact Statement (EIS) or a statement of Finding of No Significant Impact (FONSI). If the decision maker determines that this project has "significant" impacts following the analysis in the EA, then an EIS would be prepared for the project. If not, a Decision Record (DR) may be signed for the EA, approving the selected alternative, whether the proposed action or another alternative. A DR, including a FONSI statement, documents the reasons why implementation of the selected alternative would not result in "significant" environmental impacts (effects).

1.3 Background

The area surrounding and Mesa Parada itself in northeastern Arizona is part of the Little Colorado River watershed and has been inhabited since the time of the Conquistadors, 1540 (Apache County Historical Society 2014). The area is primarily defined as a Piñon / Juniper grassland and has a long history of livestock grazing. Historical grazing by livestock of Arizona's grasslands, climate change, and drought has occurred in the area; however, no noticeable signs of degradation are evident on the Mesa Parada Allotment likely due to reduced stocking rates and conservative grazing management practices.

The Hubbell Livestock Company has been the operator of the allotment since 2009. The allotment is part of a much larger ranch which extends into New Mexico where the majority of the ranch resides. The Mesa Parada Allotment sits directly adjacent to the Keihne Place Allotment in New Mexico. There is no fence dividing these allotments, however, the area is separated into two pastures by the steep relief of Mesa Parada which restricts cattle movement to either on or below the mesa (Map 1).

In 2002 a land exchange and consolidation took place between the BLM and the State of Arizona where six of the six and a half sections of BLM land on the Mesa Parada Allotment were transferred to the State, leaving only half a section in northeast corner of the allotment under BLM management.

The primary source of livestock water on the allotments is water captured behind dirt retention dams, otherwise known as dirt tanks. However, dirt tanks often dry up during drought years. In 1990 the Natural Resources Conservation Service (NRCS), as part of a drought relief program, provided funding to install a pipeline to run water from private land in New Mexico to a tank which supplies water to two troughs on BLM land in Arizona. This water source has since provided perennial sources of water to the area.

Now, the BLM is proposing the installation of approximately 0.5 miles of buried pipeline to facilitate the transportation of water from a well on Arizona State Trust Lands to two troughs on state land within the Mesa Parada allotment. The Hubbell Livestock Company has been approved by State of Arizona for all of the proposed range improvements on state land. The addition of these improvements would provide a better distribution of grazing and create additional wildlife waters within the allotments (Maps 1 and 2).

1.4 Purpose and Need

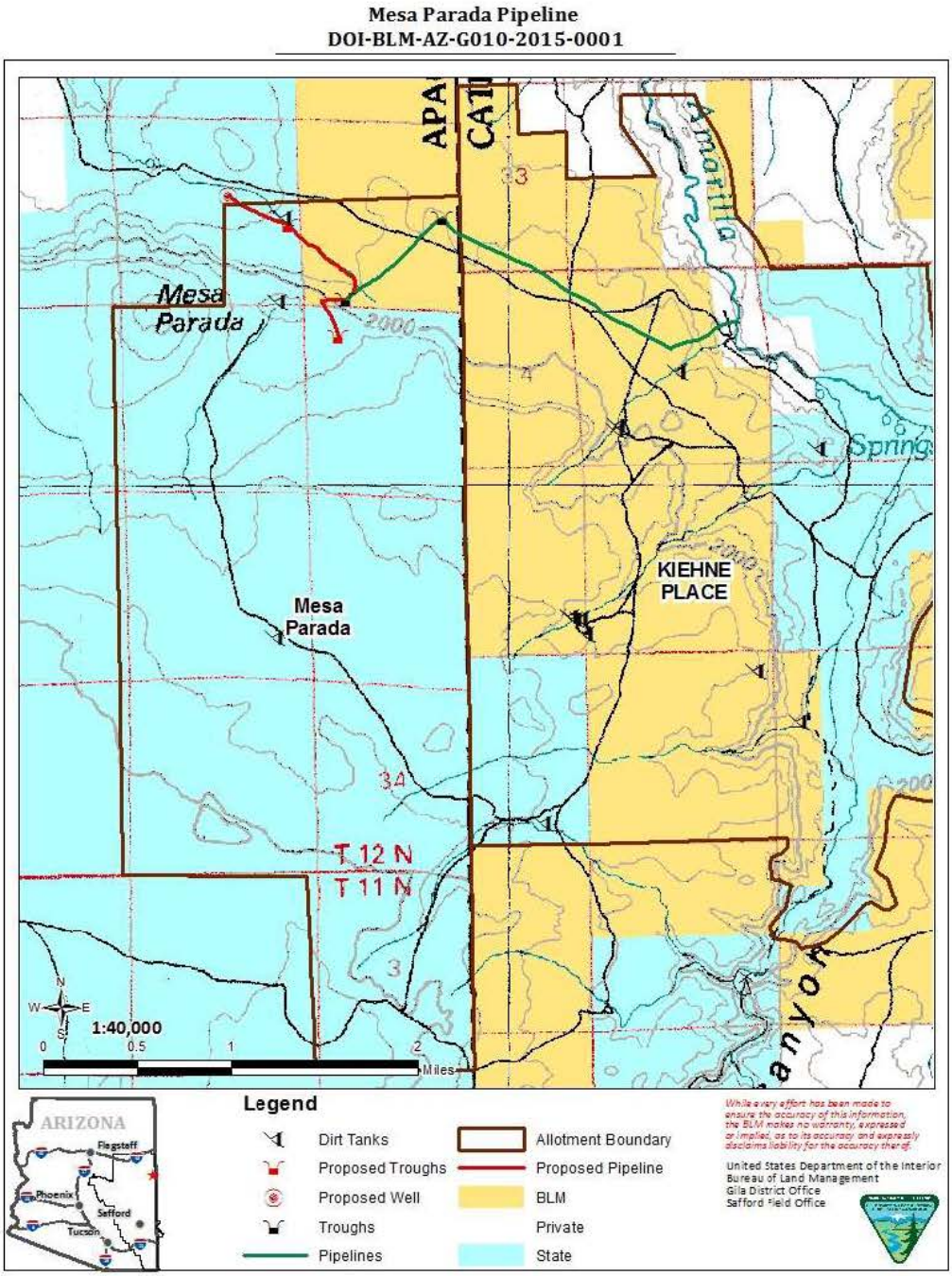
The BLM's purpose for the pipeline is to provide perennial water sources within the Mesa Parada Allotment and pasture.

The need for action is to eliminate the pumping of water from an adjacent allotment to fill perennial water troughs as well as to improve the distribution of livestock grazing which would help prevent concentrated use around single water sources and to continue progressing toward achieving the standards and guidelines for rangeland health. The need is established by the BLM's responsibility under the Federal Land Policy and Management Act (FLPMA; 43 USC 1701 et seq.) to manage public lands in a manner that protects the quality of ecological, environmental, and water resource values (43 USC 1701.a.8) and to manage on the basis of multiple use and sustained yield (43 USC 1701.a.7). The need for this action is also established by BLM's responsibility under the Public Rangelands Improvement Act of 1978 to "manage, maintain, and improve the condition of the public rangelands so that they become as productive as feasible for all rangeland values…" (43 USC 1901.b.2).

1.5 Decision to be Made

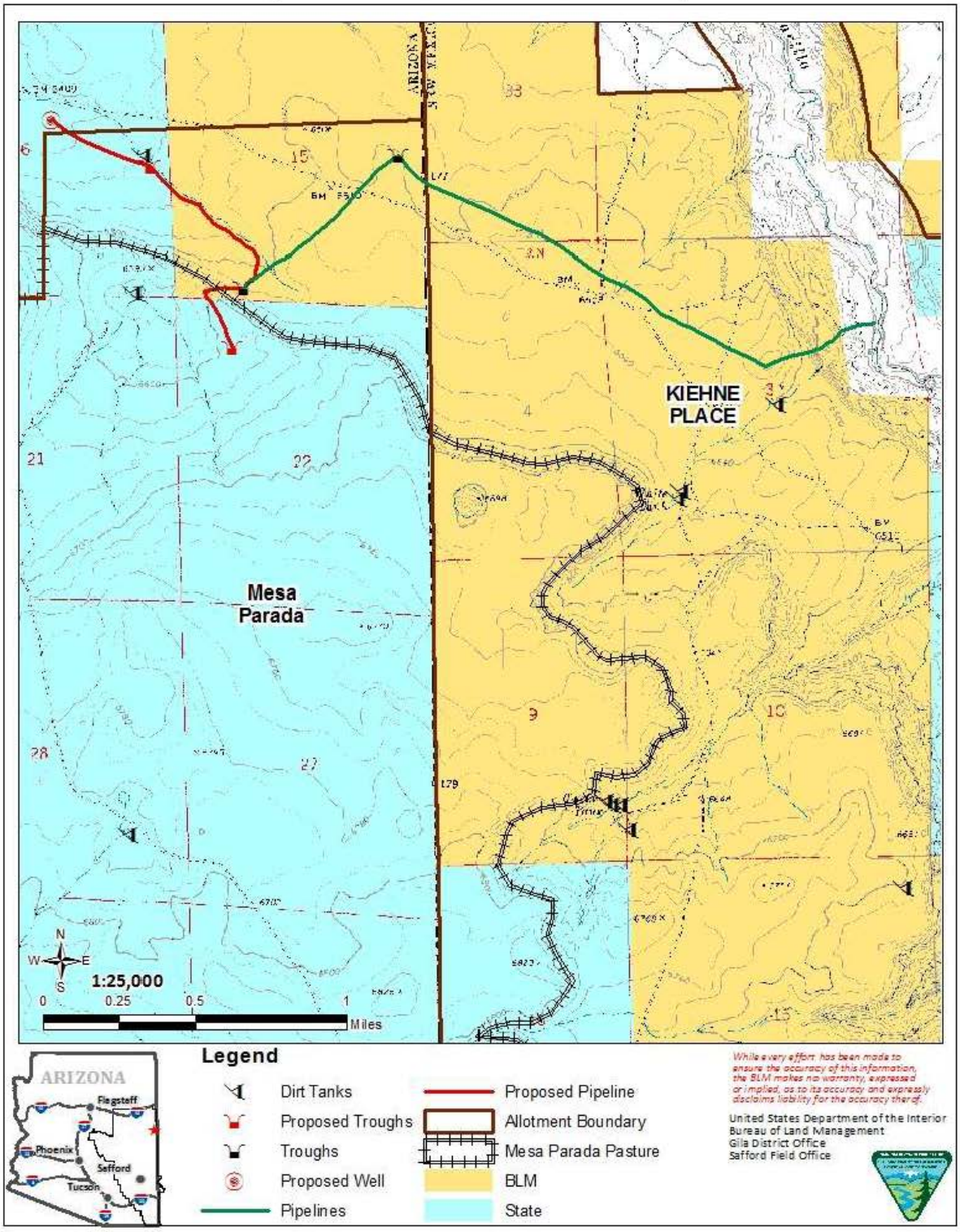
The BLM will decide whether or not to install a buried water pipeline on the Mesa Parada Allotment.

Map 1: Mesa Parada Allotment Boundary



Map 2: Proposed and Existing Pipelines

Mesa Parada Pipeline
DOI-BLM-AZ-G010-2015-0001



1.6 Conformance with BLM Land Use Plan(s)

The proposed action is in conformance with the Approved Safford Resource Management Plan/Record of Decision (RMP, ROD) (BLM 1991, 1993)

because it is specifically provided for in the following decisions:

> *Management Concern 7 Vegetation:* BLM's authority for management of upland vegetation (vegetation outside riparian zones) comes from the *Endangered Species Act* (1973), *Taylor Grazing Act* 1934), *Public Rangelands Improvement Act* (1978) and *The Federal Land Policy and Management Act* (1976). These laws require BLM to manage vegetation for its use while maintaining sufficient ground cover to maintain and enhance watershed condition and reduce non-point source pollution from rangeland management and use activities. Best management practices would be selected from available grazing management systems, livestock management practices and BLM standards for range improvements to ensure ground cover and reduce non-point pollution (to Arizona's water sediment production and fecal contamination) resulting from grazing activities.

1.7 Relationship to Statutes, Regulations, or Other Plans

BLM's authority for management of upland vegetation (vegetation outside riparian zones) comes from the *Endangered Species Act* (1973), *Taylor Grazing Act (1934), Public Rangelands Improvement Act (1978)* and *The Federal Land Policy and Management Act* /1976). These laws require BLM to manage vegetation for its use while maintaining sufficient ground cover to maintain and enhance watershed condition and reduce non-point source pollution from rangeland management and use activities.

Under the 43 CFR 4120.3-2 the BLM may enter into a cooperative range improvement agreement with any person, organization, or other government entity for the installation, use, maintenance, and/or modification of permanent range improvements or rangeland developments to achieve management or resource condition objectives.

1.8 Scoping, Public Involvement and Identification of Issues

The Council on Environmental Quality (CEQ) defines scoping as "… an early and open process for determining the scope of issues to be addressed and for identifying significant issues related to a proposed action" (40 CFR 1501.7). Scoping is an important underpinning of the NEPA process that encourages public input and helps focus the environmental impact analysis on relevant issues.

The proposed action and alternatives were reviewed by the appropriate BLM specialists. The following resources were identified as potential issues: livestock/grazing management, vegetation, wildlife habitat and diversity, and soils. Refer to Table 1, Potentially Impacted Elements/Resources, for the issues to be analyzed.

2 PROPOSED ACTION AND ALTERNATIVES

This EA focuses on the proposed action and no action alternatives. The no action alternative is considered and analyzed to provide a baseline for comparing the impacts of the proposed action. The BLM interdisciplinary team considered both alternatives to determine which action would be best for meeting the goals specified in the purpose and need. The alternatives considered but eliminated from further analysis are described in Section 2.3, along with the rationale for not further considering these alternatives.

2.1 Proposed Action Alternative

The proposed action is to install 0.5 miles of buried pipeline on the Mesa Parada Allotment (Maps 1 and 2). The addition of a pipeline would connect two new troughs on state trust land to a well on state trust land which would provide additional perennial waters and better distribute grazing in the area.

The pipeline would be buried approximately two feet deep within the disturbance of a preexisting road. The proposed action would abide by all of the BLM's standard operating procedures (SOPs) and best management practices.

2.1.1 Design Features

The following design features are included in the proposed action to minimize impacts:

- The pipeline would only be installed within the preexisting road disturbance.
- The pipeline be buried within the existing road's footprint
- The road will not be widened or otherwise changed from its existing condition. In areas prone to or experiencing erosion, rolling dips/water bars will be installed to prevent the concentration of runoff and erosion.
- No removal of vegetation would occur during the installation of the pipe
- Any archaeological or historical artifacts or remains, or vertebrate fossils discovered during construction, maintenance and use shall be left intact and undisturbed; all work in the area shall stop immediately and the Authorized Officer shall be notified immediately. Commencement of operations shall be allowed upon clearance by the Authorized Officer.
- An additional cultural and paleontological resource survey may be required in the event that the project location is changed or additional surface disturbing operations are added to the project after the initial survey. Any such survey would have to be completed prior to commencement of operations.
- If in connection with operations under this authorization, any human remains, funerary objects, sacred objects of cultural patrimony as defined in the Native American Graves Protection and Repatriation Act (P.L. 101-601; Stat. 3048; U.S.C. 3001) are discovered, the permittee shall stop operations in the immediate area of the discovery, protect the remains and objects, and immediately notify the Authorized Officer of the discovery. The permittee shall continue to protect the immediate area of the discovery until notified by the Authorized Officer that operations may resume.

- All troughs will be outfitted with a wildlife escape structure.
- Any materials and supplies left over would be removed from the site and properly disposed of.
- All plumbing should be checked at least bi-annually to ensure good operating condition.
- Inlet screens and float valves should be checked regularly.

2.2 No Action Alternative

Under the No Action Alternative, the pipeline would not be installed. The number of perennial waters on the allotment would remain the same and the distribution of grazing in the area would remain as it has where grazing pressure is more intense on BLM land than the surrounding state lands.

2.3 Alternatives Considered but Eliminated from Further Analysis

2.3.1 State land pipeline route

An alternate pipeline route, exclusively on state land, was also considered. This route would cause more overall disturbance than the proposed action and require more materials and time to complete the project.

3 AFFECTED ENVIRONMENT

3.1 Elements/Resources of the Human Environment

The BLM is required to consider many authorities when evaluating a Federal action. Table 1 lists all resources/elements of the human environment considered by BLM resource specialists in determining potential impacts of the proposed action or other action alternatives. For resources/elements that were considered but not analyzed further, the rationale for the determination is provided. If an element was determined to be potentially impacted, it was carried forward for detailed analysis and is discussed in this EA.

Table 1. Potentially Impacted Elements/Resources

Resource	Determination	Rationale for Determination
NP = Not Present in the area that would be impacted by the proposed action or other action alternative NI = Present, but not affected to a degree that would mean detailed analysis is required, or impacts disclosed previously in a separate, referenced NEPA document PI = Present with potential for impact; analyzed in detail in this EA		
Air Quality	NI	None of the alternatives are expected to have measurable impacts to air quality.
Areas of Critical Concern	NP	The project would not occur in or adjacent to Areas of Critical Environmental Concern
Cultural Resources	NP	No significant cultural resources were encountered during the cultural survey. However, standard stipulations apply during the pipeline installation.
Environmental Justice	NI	No disproportionately high or adverse health or environmental effects would impact low income or minority populations as a result of the proposed action or the alternatives.
Farmlands (Prime or Upland)	NP	There are no prime or unique farmlands within or near the project area.
Floodplains	NP	The project would not affect floodplains as defined by Executive Order 11988 (1977).
Grazing Management	PI	The proposed action would benefit grazing management by providing better grazing distribution across the landscape.
Geology/Mineral Resources	NI	No impacts are anticipated since there would be very limited ground disturbance.
Human Health and Safety	NI	A buried pipeline would have no effect on human health and safety.
Invasive Species and Nonnative Species	NP	No known noxious or invasive weed populations are present in the project area and the risks of future infestations are low with the proposed action or the alternatives.
Land Use Authorization	NI	There are no potential conflicts with existing or proposed land use authorizations.
Native American Religious Concerns	NP	No Native American cultural or religious concerns were identified within or near the project area.
Paleontological Resources	NP	No paleontological resources were identified within or near the project area.
Recreation	NP	There are no developed recreation facilities in the project area.
Socioeconomic Values	NI	Implementation of the proposed action or alternatives would not impact socioeconomic levels.
Soils	PI	See discussion in Affected Environment/Environmental Consequences

Resource	Determination	Rationale for Determination
NP = Not Present in the area that would be impacted by the proposed action or other action alternative NI = Present, but not affected to a degree that would mean detailed analysis is required, or impacts disclosed previously in a separate, referenced NEPA document PI = Present with potential for impact; analyzed in detail in this EA		
Threatened, Endangered, and Special Status Species	NP	There are no Threatened, Endangered, or special status species or critical habitat that occur in or adjacent to the project area. Therefore, there would be no direct, indirect, or cumulative impacts to this critical element.
Vegetation	PI	See discussion in Affected Environment/Environmental Consequences
Visual Resources	NI	Visual resources would be impacted in the short term following the digging of the 3 inch wide by 2 foot deep trench but will heal over time and become unnoticeable over time.
Wastes (hazardous or solid)	NP	No Hazardous or Solid Waste would be used or produced during the project.
Water Quality and Quantity (drinking/ground)	NP	The project would not affect ground water quality.
Wetland/Riparian Zones	NP	There are no wetlands or riparian areas within or adjacent to the project area
Wild and Scenic Rivers	NP	This project is in compliance, as there are no Wild and Scenic Rivers within or adjacent to the project area.
Wild Horses and Burros	NP	Not present
Wilderness/Wilderness Study Area	NP	The project area does not occur within or adjacent to a designated wilderness or a Wilderness Study Area. Wilderness values would not be impacted by the proposed action or the no action alternative.
Wilderness characteristics	NP	The public land in the area does not meet the minimum standards for wilderness character.
Wildlife	PI	See discussion in Affected Environment/Environmental Consequences

3.2 Resources Brought Forward for Analysis

3.2.1 Wildlife

The Mesa Parada allotment contains a Great Basin conifer woodland and Plains and Great Basin grassland (Brown, 1994) which provide habitat for elk, mule deer, pronghorn antelope, mountain lions, coyote, as well as a number of small mammals, birds, and herpetofauna.

3.2.2 Vegetation

The analysis area in regards to vegetation was also defined as the extent of three dominant ecological sites in the area; Shallow Loamy Precipitation Zone 10-14 inches, Loamy Upland Precipitation Zone 10-14 inches, Rock Outcropping. These ecological sites are located within Major Land Resource Area 35-1, Colorado Plateau Land Resource Unit (LRU) 35-1, Mixed Grass

Plains, and Annual Precipitation Zone 10-14 inches. The most dominant of the three ecological sites is Loamy Upland 10-14" p.z. which supports a variety of vegetation. The predominant vegetation in the area is black grama, blue grama, four-wing saltbush, winterfat, Utah juniper, and singleleaf piñon.

Past and present impacts to the vegetation within the analysis area are road construction and livestock grazing. There is only one major road in the northern portion of the analysis area which branches off into many rarely used two-track routes throughout the area where impacts are limited to the extent of the roads themselves. Impacts on vegetation from livestock grazing are most noticeable in the areas directly adjacent to perennial livestock waters. However, the vegetation in the analysis area is overall in good health. Currently the perennial water on the allotment supports 2,404 acres of pastureland (Map 3).

3.2.3 Soils

The soil impact analysis area was defined by the extent of the three hydrologic unit code 12 watersheds; Gallegos Springs, Cottonwood Canyon, and Cienega Amarilla. The area was mapped as part of the *Soil Survey of Apache County, Arizona, Central Part between 1958 and 1967* (USDA 1968). The analysis area contains three dominant soil-mapping units, described as follows:

The most dominant soil type in the analysis area is Rudd complex, 0 to 8 percent slope. This soil type is about 40% Rudd gravelly loam, and 35% Rudd very stony loam. These soils are undulating and occur in intricate patterns on plains and basalt lava flows. The vegetation is mainly blue grama, black grama, side-oats grama and a sparse stand of juniper and some chamiza. Rudd gravelly loam in this complex has a profile is shallow over basalt. Rudd very stony loam is similar but the surface layer is very stony and the soil is very shallow and shallow over basalt. It is on long, narrow ridges and the edges of basalt flows. There are many small inclusions of gravelly clay loams and clay loams in this complex. Runoff is slow, and the hazard of erosion is slight. Soils of this complex are used for range, wildlife habitat, and watershed.

The second most dominant soil type in the analysis area is Clovis Loamy Sand, 0 to 8 percent slope. This soil is nearly level to undulating on broad plains and often has a sandy loam surface layer. Runoff is slow, and the hazard of erosion is slight. About 2 percent of the unit, mainly adjacent to drainage ways, is so eroded that all of the surface layer and part of the subsoil are gone. Vegetation cover is primarily Indian ricegrass, black grama, blue grama, and needle-and-thread.

The third most dominant soil type in the analysis area is Hubert gravelly loam, 2 to 15 percent slopes, eroded. This soil is on ridge crests, low hills, and short convex side slopes of local drainage ways. This series consists of well-drained soils that formed in gravelly alluvium derived from quartzite, sandstone, limestone, travertine, and basalt. These soils are on plains and fans. The vegetation is dominantly blue grama, ring muhly, sand dropseed, winterfat, snakeweed, rabbitbrush, and in places, a few junipers. The soil's surface layer is brown

gravelly loam about 10 inches thick. The subsoil is light brownish-gray gravelly heavy loam about 5 inches thick. The underlying material is white very gravelly loam and pinkish-white very gravelly clay loam that extends to a depth of 105 inches. The soil is moderately alkaline and calcareous throughout. Permeability is moderate, and the available water capacity is moderate. The effective root depth is more than 5 feet.

The past and present impacts to soil within the analysis area include road construction, dirt tank construction, and livestock grazing. Road construction has had minimal impact to soils outside of the extent of the roads. The construction of dirt tanks had a high disturbance to soils in the analysis area. Now, the dirt tanks help catch and hold runoff water which also retains sediment and increases infiltration. Soil disturbance due to livestock grazing can be observed in the areas directly adjacent to perennial livestock waters. No significant erosion has been observed due to livestock grazing within the analysis area.

3.2.4 Grazing Management

The analysis area for grazing management is the Mesa Parada in Arizona and Kiehne Place Allotment in New Mexico. There is no fence along the Arizona/New Mexico state line therefore both allotments are run together with the edge of the mesa, impassable by cattle, acting as the pasture line. The Mesa Parada Allotment is authorized for 84 Animal Unit Month (AUM) which equates to 7 cattle yearlong and the Kiehne Place Allotment is authorized for 549 AUMs which equates to 176 cattle yearlong. The Hubbell Livestock Company, the operators for both allotments, is running a cow/calf operation where they use rotational grazing to ensure proper levels of forage use. Currently, the only water sources on the mesa are dirt tanks which only provide water seasonally.

Grazing distribution is primarily controlled through fencing, water distribution, and supplement distribution. Cattle rarely travel more than two miles from a water source on flat terrain (Horn, 2005). In the past, the primary water source was water collected in dirt tanks. In 1990 a pipeline was installed, as part of a NRCS drought relief program, which runs water from private land in New Mexico to a water storage tank then to the two troughs on the Mesa Parada Allotment in Arizona. Currently, there are only 2,404 acres supported by perennial waters within the analysis area (Map 3). When dirt tanks are included the cattle distribution rises to 100% of the analysis area.

Past and present impacts to grazing management have been drought. Livestock numbers have been reduced during drought years to reflect the carrying capacity of the analysis area.

Map 3: Areas supported by perennial waters

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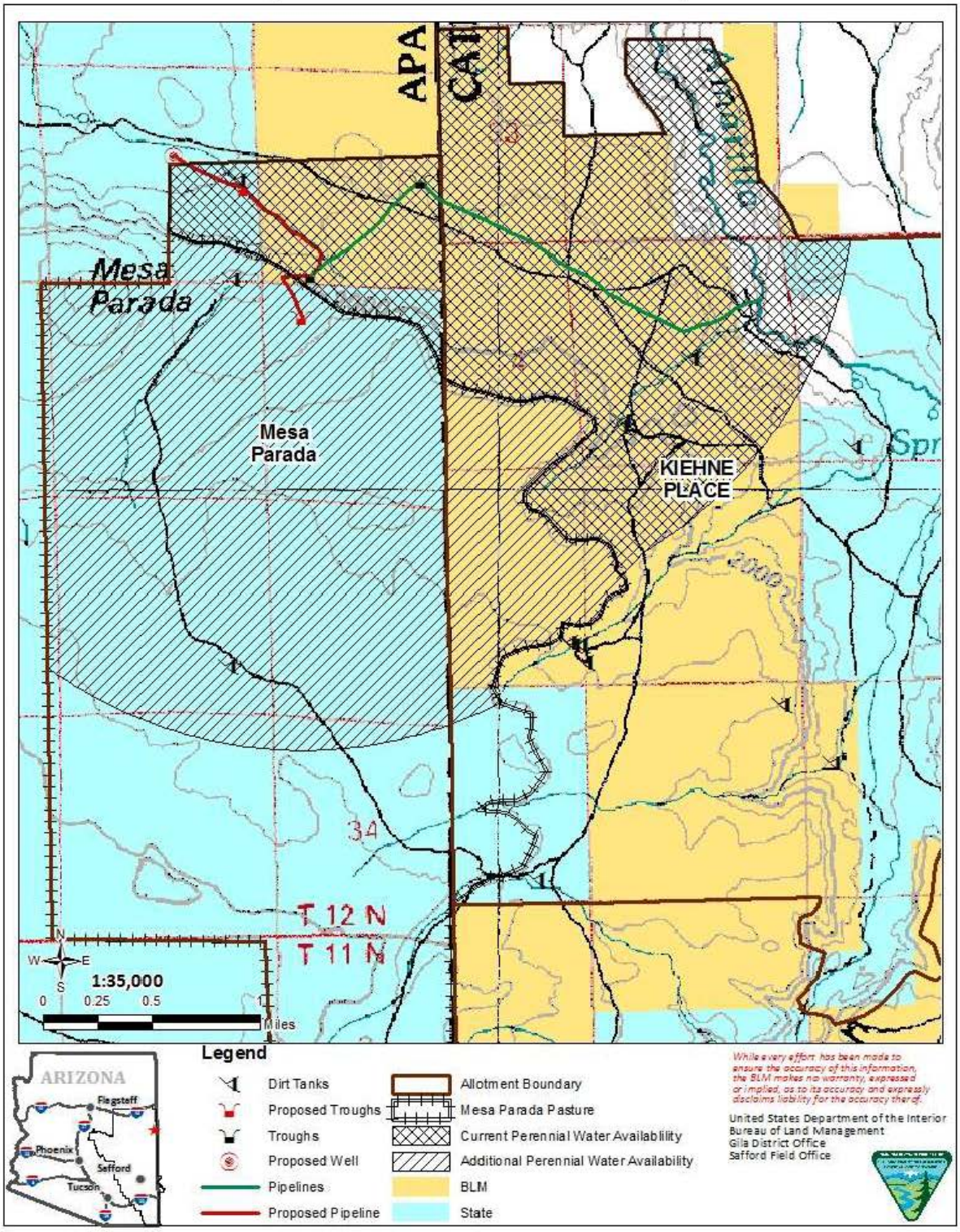

4 ENVIRONMENTAL EFFECTS

This section includes a discussion of the environmental consequences, including a description of direct and indirect impacts, and cumulative effects, if any. Impacts are defined as modifications to the existing condition of the environment and/or probable future condition that would be brought about by implementation of one of the alternatives.

Impacts can be direct or indirect. Direct impacts are those effects that are caused by the action or alternative and occur at the same time and place, while indirect effects are those effects that are caused by or would result from an alternative and are later in time, but that are still reasonably certain to occur. Impacts can be "beneficial/positive" or "detrimental/negative." Cumulative effects disclose the potential direct and indirect impacts of the proposed action and alternatives when considered in addition to other past, present, or reasonably foreseeable future actions within the project and surrounding area.

The impact analyses in the following sections are based on knowledge of the resources and the site, the review of existing literature information provided by experts and other agencies, and professional judgment.

4.1 Environmental Effects of Proposed Action

4.1.1 Wildlife

Wildlife within the project area will be temporarily disturbed during project construction. This is anticipated to be less than three days and during subsequent monitoring and repair, and is not expected to significantly affect individuals or populations.

Pronghorn antelope in the area will likely benefit from the additional water (Joel Weiss, AZGFD, personal communication). Pronghorn antelope forage on forbs, shrubs, and grass (in order of diet proportion). Reduced grass cover around the water will increase forbs which may be beneficial. Reduction in grass cover, in areas of higher livestock use around the water may decrease fauning cover which can result in increased faun predation.

Elk and mule deer diets have a higher degree of overlap with cattle and can compete directly for food resources (Peek and Krausman 1996). Increased livestock utilization around the new water will result in a decrease of forage for elk and mule deer in this area. Conversely, areas which receive less livestock use will see an increase in forage for elk and mule deer.

4.1.2 Vegetation

The only two active perennial water troughs on the allotment are within a mile of each other and are both located on BLM land (Map 2). These areas have been used more heavily than other areas within the allotment. The proposed pipeline would facilitate the delivery of water to other portions of the analysis area which would allow for better grazing distribution and therefore reduce the use of vegetation surrounding the existing water troughs on BLM land.

4.1.3 Soils

Through the better distribution of water and therefore grazing, the proposed action would reduce soil disturbance directly adjacent to livestock waters caused by livestock grazing and increase perennial grass cover that holds soil intact thus reducing the potential for soil erosion in the long term.

4.1.4 Grazing Management

The proposed action would facilitate the better distribution of grazing across the allotment by the addition of perennial livestock waters to the east and to the south of BLM lands on the mesa which has been supported by only a few dirt tanks which only hold water seasonally following summer and winter rains. Currently only 2,404 acres of the analysis area is supported by perennial waters. The proposed action would increase the area supported by perennial waters by 2,947 acres to a total of 5,351 acres (Map 3).

4.2 Environmental Effects of the No Action Alternative

4.2.1 Wildlife

Under the no action alternative current conditions for wildlife would continue into the foreseeable future.

4.2.2 Vegetation

The no action alternative would not alter grazing distribution on the allotment. The areas surrounding existing water troughs would continue to be loitered around and the areas distant from troughs minimally used.

4.2.3 Soils

The no action alternative would not alter grazing distribution on the allotment. The areas surrounding existing water troughs would continue to be loitered around and in the long-term have the potential for increased soil erosion.

4.2.4 Grazing Management

Under the no action alternative, the allotment would continue to be conservatively stocked due to the lack of perennial water on the mesa. Livestock would only travel on top of the mesa away from BLM land seasonally when the dirt tanks are holding water.

4.3 Cumulative Impacts Analysis

The Council on Environmental Quality (CEQ) regulations that implement NEPA defines a cumulative impact as: “The impact on the environment which results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions.” Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).

Life of the proposed action and its alternatives is 20 plus years; this time frame is considered to be most appropriate for considering the incremental effect of actions in the foreseeable future. Many of the past and present actions are expected to persist through this time frame, though the relative intensity of these actions could vary. The temporal impact of the proposed action varies in intensity depending on the resource.

The Cumulative Impact Analysis Area (CIAA) is defined uniquely for each resource issue. The assessment of impacts from past, present, and reasonably foreseeable actions would not expand beyond the boundary of each CIAA.

The following critical elements, Air Quality, ACES's, Floodplains, Wastes, Cultural Resources, Native American Concerns, Prime Farmland, VRM, Wild and Scenic Rivers, Wilderness Characteristics, Wilderness, Socio-Economics and T&E Species including Fish/Fisheries would have no cumulative impacts from the proposed action or alternatives as they are not found within or adjacent to the project area.

4.4 Past Actions

The lands on and surrounding Mesa Parada has been grazed since the earliest settlers arrived in the late 1800s. Since that time natural fires have been suppressed and fire frequency has been reduced which has led to an increase in juniper and other woody species. The authorized use, by livestock, of the allotment has not changed since the establishment of the federal grazing service which has since been integrated into the BLM. In 2002 the BLM and the State of Arizona went through a series of land exchanges and consolidation. On the Mesa Parada Allotment six of the six and a half BLM sections were transferred to the State of Arizona. This left only half a section of BLM land on the allotment. Two water troughs and a pipeline bringing water to the allotment from private land in New Mexico were installed as part of a NRCS drought relief initiative in 1990. Low-impact human activities such as hiking, shooting, off-road vehicle activity, and hunting have been present in the area. Refer to the Affected Environment for more resource specific past actions.

4.5 Present Actions

The Hubbell Livestock Ranch utilizes a rotational grazing system. The Mesa Parada pasture is just one pasture that is part of a much larger ranch that extends into New Mexico. Human activities such as hiking, shooting, off-road vehicle activity, and hunting are continually present in the area. Cattle are seasonally restricted to the northern portion of the allotment due to the current state of water distribution in the area. See Affected Environment for more resource specific present actions.

4.6 Reasonably Foreseeable Future Actions

Past and present actions are likely to continue into the future. Planned actions within the reasonably foreseeable future (RFF) within the resources' CIAAs include rotational grazing, the addition of new livestock/wildlife water, and activities such as hiking, shooting, off-road

vehicle activity, and hunting. No other projects are known to be in progress or proposed in any of the analysis areas at this time.

4.7 Cumulative Impacts to Wildlife

4.7.1 Cumulative Impacts of the Proposed Action

The short duration of the project implementation and subsequent re-distribution of grazing effects are not anticipated to add substantially to the cumulative impacts of other past, present, or reasonably foreseeable future actions.

4.7.2 Cumulative Impacts of the No Action Alternative

Wildlife water availability and habitat would be unchanged.

4.8 Cumulative Impacts to Vegetation

4.8.1 Cumulative Impacts of the Proposed Action

Vegetation would initially be impacted due to the installation of the two troughs on state land which would disturb a total of less than a one-quarter of an acre. The installation of the pipeline would not disturb any vegetation because it would be buried within the already disturbed extent of the existing road. The proposed action would alleviate some impacts from livestock grazing in areas surrounding livestock waters due to the improved distribution of water in the area.

4.8.2 Cumulative Impacts of the No Action Alternative

Under the no action alternative the current level of use in the areas surrounding livestock waters within the CIAA would continue.

4.9 Cumulative Impacts to Soils

4.9.1 Cumulative Impacts of the Proposed Action

The proposed action would initially cause a disturbance to soils during the installation of the troughs and pipeline. The impact of the pipeline would only be minor because it would be buried within an existing road's disturbance and would likely become unnoticeable within a year. Potential erosion from the road and pipeline will be mitigated through the installation of rolling dips or water bars, if needed. The proposed action would reduce impacts in areas surrounding existing water troughs because it would provide a better distribution of livestock grazing therefore allowing vegetation to return and stabilize the soils in the areas surrounding currently existing water troughs.

4.9.2 Cumulative Impacts of the No Action Alternative

Under the no action alternative impacts would continually erode the areas directly adjacent to the water troughs therefore creating an increased potential for soil erosion in those areas.

4.10 Cumulative Impacts to Grazing Management

4.10.1 Cumulative Impacts of the Proposed Action

The proposed action would add perennial water to a pasture on the ranch which currently has none. This would facilitate more efficient rotational grazing and grazing management. The proposed action would also benefit livestock health, land health, productivity, and sustainability on the ranch.

4.10.2 Cumulative Impacts of the No Action Alternative

Under the no action alternative grazing management would go unchanged. Livestock health and productivity would remain unchanged.

5.0 CONSULTATION AND COORDINATION

5.1Persons/Agencies Consulted

- Arizona Game and Fish (AZGF)
- Arizona State Land Department (AZSLD)
- Hubbell Livestock Company

5.2 List of Preparers and Contributors

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5.3 Reviewers

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Appendix A: List of Interested Parties

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