

Environmental Assessment

Paso Spring and Pothole Spring Riparian Projects

August 14, 2013.

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Chapter 1. Introduction

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1.1. Background

1.1.1. Paso Spring and Pothole Spring Riparian Projects Environmental Assessment DOI-BLM-CA-N070-2013-0011

In August 2012, the Surprise Field Office (SFO) interdisciplinary team completed riparian assessments as a part of the Lost Fire Emergency Stabilization and Rehabilitation (ESR) plan. Paso Spring and Pothole Spring were both identified as at-risk riparian areas due to livestock grazing. Paso Spring had five broken and non-functional livestock troughs, broken pipes and a severely degraded spring and riparian area. Pothole Spring had one broken livestock trough and had severe hummocking of riparian soils. Both riparian areas had troughs located in the middle of the spring meadows and neither spring was producing water in late August, likely due to a combination of poor riparian conditions and prolonged drought. Paso Spring and Pothole Spring are currently within the area temporarily closed to grazing due to the Lost Fire.

1.1.2. Location of Proposed Action:

The Pothole Spring project is located in the Home Camp Grazing Allotment in Northwestern Nevada at Township 40 N Range 22 E Section 21. The Paso Spring project is located in the Home Camp and Denio Grazing Allotment in Northwestern Nevada at Township 39.5 N Range 21 E Section 24.

1.1.3. Name and Location of Preparing Office:

Surprise Field Office BLM, 602 Cressler Street, Cedarville, CA 96104

1.2. Purpose and Need for Action:

Purpose and Need

The purpose of this project is to provide protection to sensitive resources by fencing the Paso Spring source to exclude livestock and provide off-site water at Paso Spring and move the livestock trough at Pothole Spring out of the riparian area and provide off-site water for livestock. These springs are located in the Denio and Home Camp Grazing Allotments.

The need for the action is that the riparian areas at both springs are severely degraded and were identified as at-risk in a recent assessment. The location of watering troughs associated with the springs and located in the spring meadows have resulted in heavy use of the areas by cattle. A consequence of this heavy use is severe soil churning, denuded vegetation, and soil erosion in the surrounding area, which are causing effects to riparian, wildlife, and cultural resources. Restricting access to these riparian sites and moving livestock impacts away from the riparian area is instrumental in to achieve riparian objectives and make progress towards rangeland health standards for wetland/riparian areas.

Objectives

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1. Increase ground cover from an estimated 20% to 50% within two growing seasons after implementation of the projects at Paso Spring.
2. Reduce soil hoof alteration at riparian sites to 0% at Paso Spring and 25% at Pothole Spring.
3. Increase stubble heights at Paso Spring from an estimated 1 inch to 8 inches within 4 growing seasons after implementation of the project.
4. Increase stubble heights at Pothole Spring from an estimated 1 inch to 4 inches within 2 growing seasons.
5. Provide surface water year-long at both sites.
6. Increase riparian plant diversity to at least 3 riparian obligate plant species at each site.

1.3. Scoping, Public Involvement and Issues:

Scoping

On March 21, 2013 the BLM met with Denio Allotment livestock permittees and on November 19, 2012 and March 25, 2013 the BLM met with Home Camp Allotment livestock permittees to discuss possible fencing and watering options to achieve proper livestock distribution and protection of the spring sites at Paso and Pothole Springs. Topics discussed included how to ensure a water source was available for livestock outside of the enclosure, project design to ensure that livestock from both pastures would be able to access water and the placement of the fence.

The BLM formally consulted with the Cedarville Rancheria on February 28, 2013, the Fort Bidwell Tribe on March 9, 2013, and Summit Lake Paiute Tribe on March 16, 2013 regarding this project. No issues or concerns were brought forth during these consultations.

A scoping letter was sent to interested parties on March 6, 2013 for a 15 day public comment period. Three written comments were received as a result of this scoping period. In addition to written comments letters, the Denio Allotment permittees provided the BLM an alternative for analysis where the livestock water developments would be fixed by the BLM in the same locations they are currently at. This alternative would not be consistent with progressing towards BLM Land Health Standards for Riparian/Wetland sites, protecting cultural resources and riparian/wetland sites and the BLM interim management policy 2012-043 for Greater Sage-grouse; however, the alternative the Denio Allotment permittees provided is similar to the No Action Alternative, which is analyzed in this EA.

Scoping letters were received from Western Watersheds Project (WWP), Nevada Department of Wildlife (NDOW), and Bill Phillips. WWP provided comments and an alternative for analysis. This alternative is incorporated into the EA as Alternative 3(Enhanced Riparian Recovery Alternative). Comments related to this project included:

- Placement of spring development and livestock troughs and fences;
- Project design to ensure riparian habitat is maintained within the riparian zone
- Visual resource impacts of livestock water developments;
- Impacts to Greater sage-grouse and other native wildlife as a result of livestock developments;

- Mitigation measures or design features that will be incorporated into the EA.

Issues

What are the effects of spring developments on:

- Native wildlife species including greater sage-grouse?
- Riparian function and condition?
- Livestock behavior at spring meadows?
- Water availability for livestock?

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Chapter 2. Proposed Action and Alternatives

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2.1. Description of the Proposed Action:

Alternative 1: Proposed Action

A four strand (3 barbed, and one bottom smooth wire) barbed wire fence would be constructed at Paso Spring that would tie into the existing pasture division fence. This fenced area would be managed as a part of the existing enclosure that currently fences a portion of Paso Spring. A total of .63 miles of fence would be built around the spring. An off-site water development for cattle would be placed in two locations to serve the Home Camp and Denio Allotments. A total of 1120 feet of new pipeline would be installed under the proposed action. A water trap fence with gates would be built around one of the troughs to provide water for cattle in the Denio Allotment and allow for control of livestock. Sage-grouse collision markers would be installed on the fences. Unnecessary fencing within the riparian zone at Paso Spring would be removed to reduce the possibility of wildlife entanglements and fence strikes. A total of .27 miles of fence would be removed under the Proposed Action. All broken troughs and broken infrastructure would be removed from the site. Map 1 shows a diagram of the enclosure, fence removal and water trough locations. The new enclosure fence would enclose an additional 27 acres to prevent excessive livestock grazing. The total acres fenced within the old enclosure and new enclosure would total approximately 165 acres.

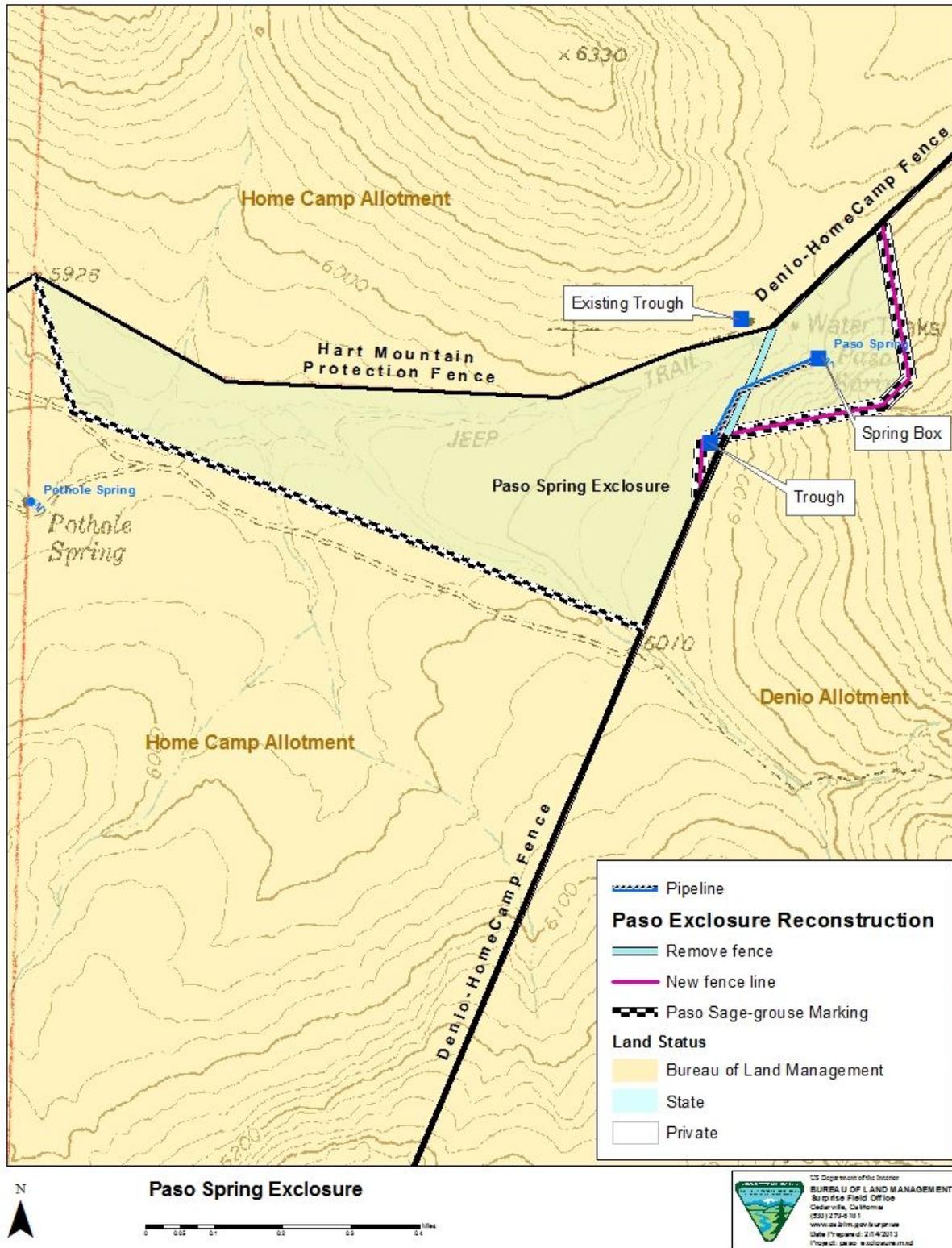
The Pothole Spring off-site water would consist of repairing the springbox, trenching and installing pipe down the existing road and installing a watering trough outside the riparian area. The existing trough would be removed from the site under this alternative. See Map 2 for a diagram of the pipeline and water trough. A total of 2136 feet of pipe would be installed to the new trough location. The proposed trough would split the Hart Mountain Protection fenceline to provide water outside of the riparian area on both sides of the fence. The location where the trough intersects the fence would have pipe rail fence installed to prevent damage to the fence as a result of cattle watering. Two troughs may be linked together at the proposed location to ensure adequate water is supplied to cattle. The total riparian area size at Pothole Spring is approximately 5 acres.

Standard Operating Procedures

1. The livestock permittees would be responsible for fence maintenance defined in a cooperative agreement. Prior to final inspection all construction trash and excess debris would be removed from the public lands and disposed of at a site approved by the BLM Project Inspector.
2. The livestock permittees would be responsible for pipeline and trough maintenance as defined in a cooperative agreement.
3. Fence construction activities would occur when the ground is dry. Vehicles and equipment would be cleaned prior to entry to the site for fence work to prevent or the spread or introduction of weeds.
4. Prior to construction, large brush will be completely removed from within two feet of the fence centerline as necessary to maintain proper fence alignment.
5. Water troughs would be shut off after the scheduled season of use by the permittees to maintain free-flowing characteristics of riparian areas and minimize damage to the pipeline from freezing conditions.

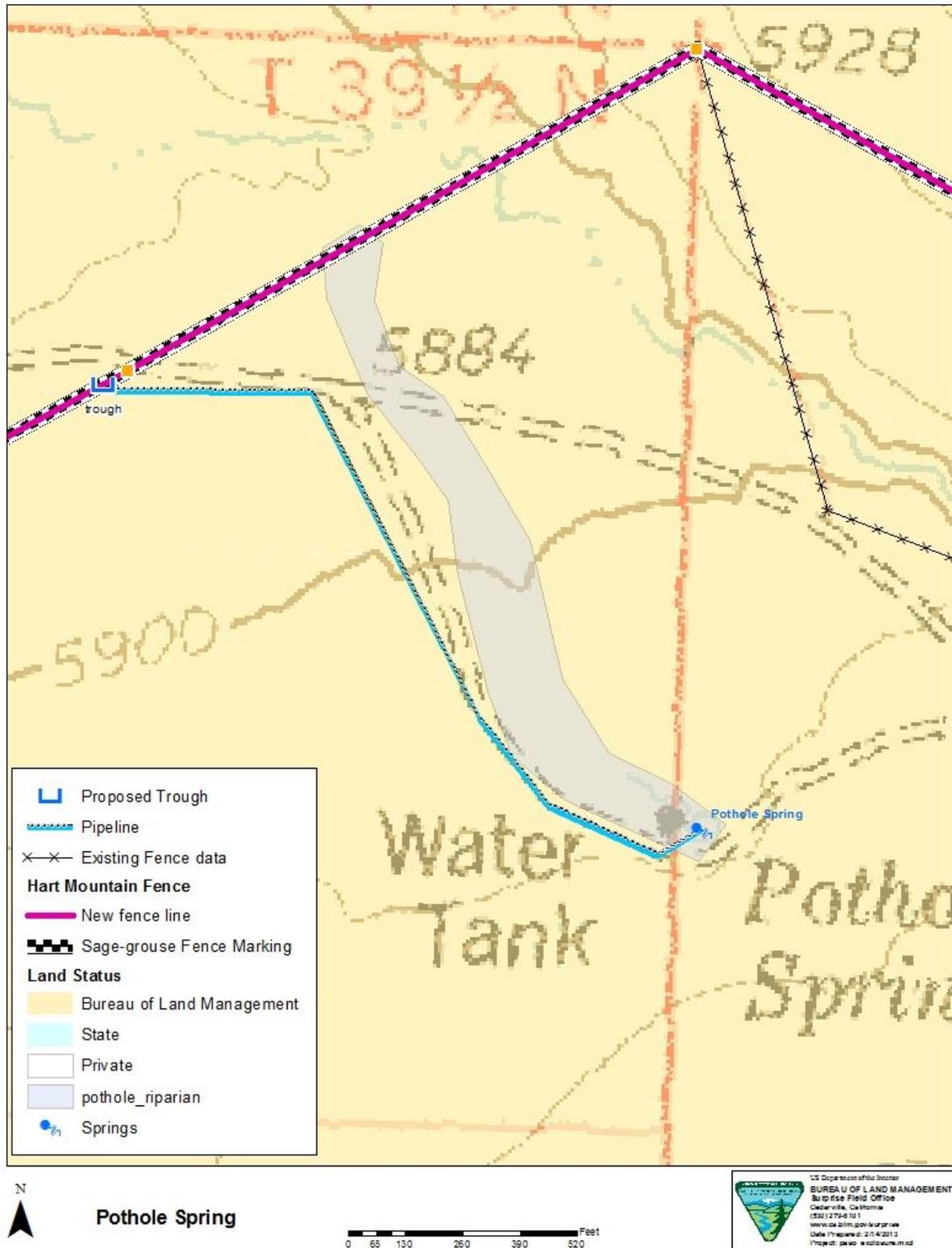
6. The SFO archaeologist will be present at Paso Spring when trenching for the pipeline for off-site water is occurring in the event sub-surface cultural resources are exposed.

2.1.1. Map 1: Proposed Action-Paso Spring Fence and Off-Site Water Location



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2.1.2. Map 2: Proposed Action- Pothole Spring Water Trough Location



2.2. Description of Alternatives Analyzed in Detail:

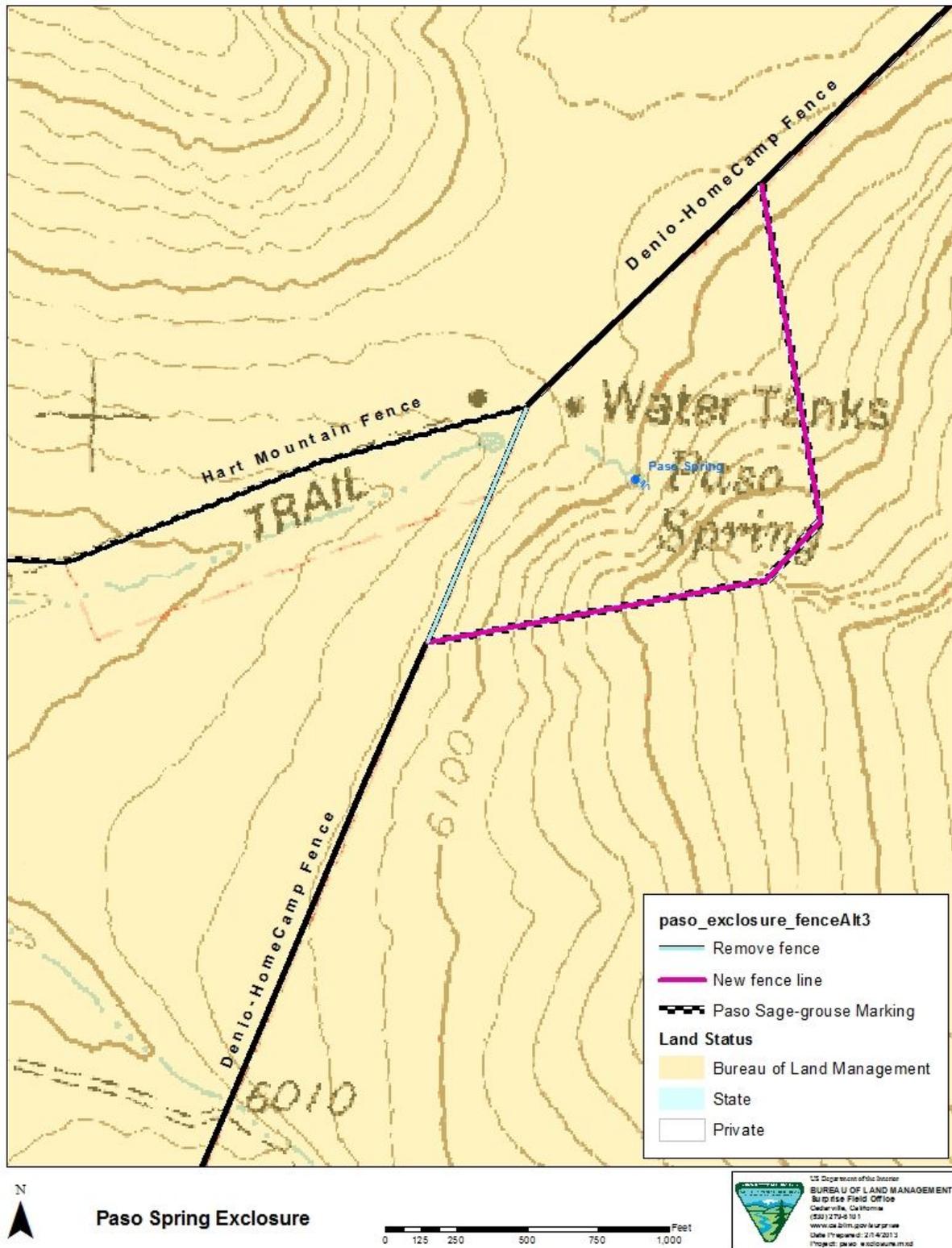
Alternative 2: No Action

Under the No Action Alternative, the enclosure and water troughs would not be built. Restricting access to Paso Springs and moving livestock impacts away from the riparian area at Pothole Spring to achieve riparian objectives and make progress towards rangeland health standards for wetland/riparian areas would not occur. Existing troughs and pipelines would be maintained in their existing locations.

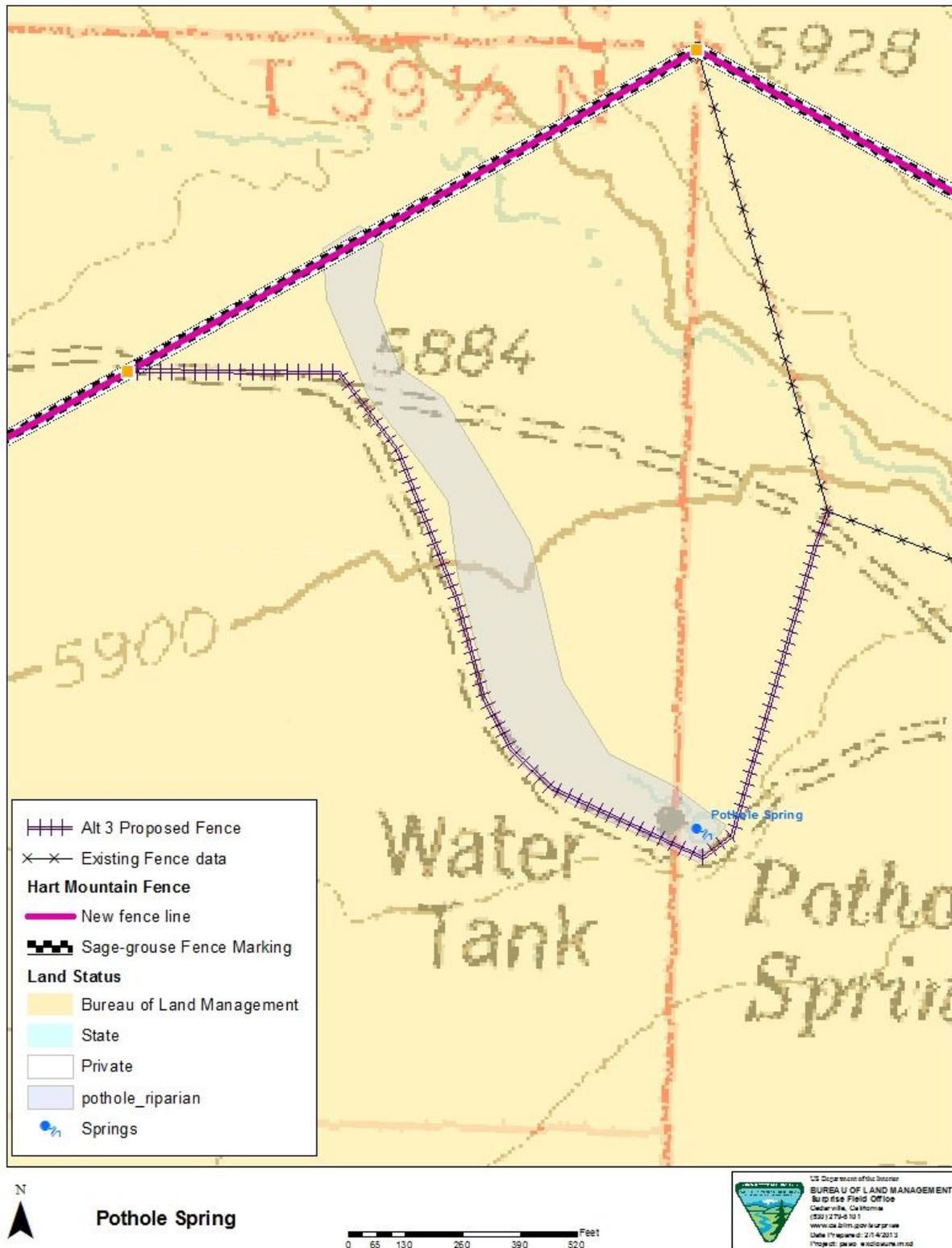
Alternative 3: Enhanced Riparian Recovery Alternative

Under Alternative 3, Paso Spring and Pothole Spring would be fenced to exclude livestock use but no off-site water would be developed. All livestock troughs, spring boxes, and associated infrastructure would be removed from the site. All unnecessary fencing within the riparian zone would be removed under this alternative totaling .17 miles of fence at Paso Spring. A total of .51 miles of fence would be built at Paso Spring under this alternative. Map 3 diagrams the enclosure fenceline for Paso Spring and Map 4 diagrams the enclosure fenceline for Pothole Spring. A total of .53 miles of fence would be built at Pothole Spring under this alternative to protect the riparian zone. All applicable Standard Operating Procedures for fence construction apply to this alternative.

2.2.1. Map 3: Paso Spring Exclosure Fence for Alternative 3



2.2.2. Map 4: Pothole Spring Exclosure Fence for Alternative 3



Chapter 2 Proposed Action and Alternatives
Map 4: Pothole Spring Exclosure Fence
for Alternative 3

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2.3. Alternatives Considered but not Analyzed in Detail

Constructing off-site water without a protective enclosure at Paso Spring was considered but dismissed due to the high likelihood of not meeting riparian objectives and continued impacts to sensitive riparian and cultural sites.

2.4. Conformance with BLM Land Use Plans

The Proposed Action is in conformance with the Proposed Surprise Field Office Resource Management Plan (RMP) and Final Environmental Impact Statement issued in May 2007 as adopted by the Record of Decision approved in April 2008 and can be found in the following sections of the RMP.

Section 2.14.4

- Actions would minimize damage to the watershed and its soil, vegetation, air-quality or other resources of the public lands.

Section 2.19.5

- Protecting uplands, springs, streams, riparian areas, and wetlands from grazing by employing and maintaining protective enclosures.

Section 2.2.2

- Protect and preserve significant cultural resources. Ensure that these resources are available to present and future generations for appropriate uses. Manage legitimate activities in a manner that will ensure preservation and provide public benefits through education (including interpretation), research, public uses, and conservation for future generations.

Section 2.2.5

- Cultural resources will be managed in accordance with existing laws, regulations, executive orders, and Nevada and California State Historic Preservation Office protocol agreements (as amended).

Section 2.22.2

- Locate new livestock watering sites where depletion of natural springs and wetland areas can be avoided. Equip watering troughs with ramps for wildlife access and egress; provide water at ground level, if possible.
- Ensure that sufficient vegetation is retained around springs and other water sources, riparian areas, and wetlands to fulfill the needs of wildlife.

Relationship to Statutes, Regulations and Other Plans

The proposed action is consistent with the following laws, regulations, and protocols:

National Historic Preservation Act (NHPA) (1966), as amended.

The Federal Land Policy and Management Act (1976), as amended

Archaeological Resources Protection Act (1979), as amended

BLM-California State Historic Preservation Office Protocol Agreement (2004), as amended

Executive Order No. 11,593- Protection and Enhancement of the Cultural Environment, 1971

BLM Manual 8100 – Cultural Resource Management

Taylor Grazing Act (43 U.S.C 315 - 1934)

Federal Land Policy and Management Act (43 U.S.C. 1701, 1976)

Public Rangelands Improvement Act (43 U.S.C. 1901. 1978)

Massacre PMU Sage-Grouse Conservation Strategy

BLM Instructional Memorandum-2012-043

In 2011 the BLM initiated RMP Amendments for Greater sage-grouse across the range of sage-grouse habitat managed by the BLM (western states) to ensure the long term conservation of the species and to avoid the need of listing the species under the Endangered Species Act of 1973. The completion date for the RMP Amendments is in 2015. This date corresponds to the USFWS timeline to evaluate the need for listing the species in light of the new conservation direction brought forth for greater sage-grouse under the BLM RMP Amendments. BLM policy and direction in the interim period are outlined in BLM Instruction Memorandum (IM) No. 2012-043. In addition to this policy, the BLM released the National Greater Sage-grouse Conservation Measures/Planning Strategy Technical Team Report released on December 21, 2011. This report describes recommended conservation measures for greater sage-grouse for each BLM land use or resource program area. The conservation measures relating to Range Management are described on page 14-17. BLM IM 2012-043 requires the BLM to designate Preliminary Priority Habitat (PPH) and Preliminary General Habitat (PGH) boundaries. PPH comprises areas that have been identified as having the highest conservation value to maintaining sustainable greater sage-grouse populations. These areas would include breeding, late brood-rearing, and winter concentration areas. PGH comprises areas of occupied seasonal or year-round habitat outside of priority habitat. PPH and PGH boundaries within the Surprise Field office have been delineated by the BLM in coordination with respective state wildlife agencies (CDFW and NDOW).

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Chapter 3. Affected Environment:

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Supplemental Authorities of the Human Environment

The following supplemental authorities of the human environment are specifically required by statute, regulation, and executive order and must be considered in the Proposed Action and Alternatives. Supplemental Authorities of the Human Environment are those elements that are subject to the requirements specified in statute, regulation, or executive order, and must be considered in all EAs (BLM H-1790-1, Appendix 5). These authorities have either been analyzed in the Environmental Assessment or are not present or not affected by the Proposed Action or Alternatives.

Resource Issue Area	Supplemental Authority	Not Present	Present Not Affected	Present and Affected	Comments
Areas of Critical Environmental Concern (s)		X			There are no ACEC's located within the Project Area.
Cultural Resources	National Historic Preservation Act, as amended (16 USC 470)			X	Analyses of the potential for the Proposed Action to result in environmental effects related to Cultural Resources are presented in Section 3.1
Environmental Justice	E.O. 12898, "Environmental Justice" February 11, 1994	X			Implementation of the Proposed Action would not disproportionately affect low income or minority populations.
Essential Fish Habitat	Essential Fish Habitat Magnuson-Stevens Act Provision: Essential Fish Habitat (EFH): Final Rule (50 CFR Part 600; 67 FR 2376, January 17, 2002)	X			There is no Essential Fish Habitat located within the Project Area.
Farmlands, Prime and Unique		X			There are no Prime or Unique farmlands located within the Project Area.
Floodplains	E.O. 11988, as amended, Floodplain Management, 5/24/77	X			There are no FEMA-mapped 100- or 500-year floodplains within the Project Area.
Invasive, Non-native Species				X	Analyses of the potential for the Proposed Action to result in environmental effects related to Invasive Species are presented in Section 3.2
Global Climate Change			X		There would be no effect on Global Climate Change from the Proposed Action.

Resource Issue Area	Supplemental Authority	Not Present	Present Not Affected	Present and Affected	Comments
Livestock Management				X	Analyses of the potential for the Proposed Action to result in environmental effects related to Livestock Management are presented in Section 3.3 .
Native American Religious Concerns	American Indian Religious Freedom Act of 1978 (42 USC 1996)	X			No Native American Religious Concerns were expressed during consultation with the Fort Bidwell Tribe, Cedarville Rancheria, and Summit Lake Paiute Tribe.
Recreation			X		There would be no effect on recreation from the Proposed Action.
Social and Economic Values				X	Analyses of the potential for the Proposed Action to result in environmental effects related to Social and/or Economic Values are discussed in the Livestock Management section.
Soils				X	Analyses of the potential for the Proposed Action to result in environmental effects related to Soils are presented in Section 3.4 .
Visual Resource Management				X	Analyses of the potential for the Proposed Action to result in environmental effects related to Visual Resources are presented in Section 3.8 .
Wastes, Hazardous or Solid	Resource Conservation and Recovery Act of 1976 (43 USC 6901 et seq.) Comprehensive Environmental Response Compensation, and Liability Act of 1980, as amended (43 USC 9615)	X			Implementation of the Proposed Action would not result in hazardous materials/waste exposure to people or the environment, nor would implementation result in effects related to solid waste.

Resource Issue Area	Supplemental Authority	Not Present	Present Not Affected	Present and Affected	Comments
Water Quality	Safe Drinking Water Act, as amended (43 USC 300f et seq.) Clean Water Act of 1977 (33 USC 1251 et seq.)			X	Implementation of the Proposed Action would not affect ground water. Analyses of the potential for the Proposed Action to result in environmental effects related to Water Quality are presented in Section 3.6 .
Wetlands /Riparian Zones	E.O. 11990 Protection of Wetlands 5/24/77			X	Analyses of the potential for the Proposed Action to result in environmental effects related to Wetlands are presented in Section 3.6
Wild and Scenic Rivers	Wild and Scenic Rivers Act, as amended (16 USC 1271)	X			There are no designated Wild and Scenic rivers within the Project Area.
Wilderness (lands with wilderness characteristic)	Federal Land Policy and Management Act of 1976 (43 USC 1701 et seq.); Wilderness Act of 1964 (16 USC 1131 et seq.)	X			There would not be effects to Lands with Wilderness Characteristics.
Wild Horse and Burros		X			The project area is not within an HMA.
Wildlife and Threatened/ Endangered Wildlife Species	Endangered Species Act of 1983, as amended (16 USC 1531) E.O. 131186, "Responsibilities of Federal Agencies to Protect Migratory Birds" January 10, 2001			X	There are no known federally-listed species in the Project Area. Analyses of the potential for the Proposed Action to result in environmental effects related to Wildlife are presented in Section 3.7
Vegetation and Threatened/ Endangered Vegetation Species	Endangered Species Act of 1983, as amended (16 USC 1531)			X	Analyses of the potential for the Proposed Action to result in environmental effects related to Vegetation are presented in Section 3.5
Fire and Fuels Management		X			There would be no effect on Fire and Fuels Management from the Proposed Action.

3.1.

Cultural Resources

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Chapter 3 Affected Environment:

In 2012 the Surprise Field Office (SFO) Archaeologist conducted a National Historic Preservation Act (NHPA) Section 106 compliance inventory for the proposed projects. The inventory is designed to identify any cultural resources that may be affected by the proposed action. As a result of the inventory the SFO Archaeologist identified two cultural resource sites within the Area of Potential Effect (APE). One site is deemed ineligible for listing on the National Register of Historic Places (NRHP). The other site has not been evaluated for listing on the NRHP and will be treated as eligible until such an evaluation is made.

3.2. Invasive and Non-Native Species

A weed is defined in this EA as a non-native plant that disrupts or has the potential to disrupt or alter the natural ecosystem function, composition and diversity of the site it occupies. Weeds often invade disturbed areas or areas in declining ecological condition. Weed inventory was conducted at the project site and a small bull thistle infestation was found in the project site at Paso Spring. No weeds were found during inventories at Pothole Spring. Since both springs were originally developed as water sites years ago for cattle, there has been disturbance to the riparian resources at the springs including soil disturbance and some soil erosion in the surrounding area. Roads run alongside both spring sites and pose a risk of introducing noxious weed seeds and plant materials from vehicle traffic.

3.3. Livestock Management

Paso and Pothole Springs developments are located in the Hart Camp use area on the Home Camp Allotment. Paso Spring also provides water for livestock in the North Pasture of the Denio Allotment. Both springs lie within the grazing closure area of the 2012 Lost wildfire.

Prior to the Lost wildfire, four permittees were authorized to graze up to 1,828 cattle in the Hart Camp use area from April 16 to July 15 annually. Due to the temporary grazing closure, authorized livestock numbers were reduced to 1,581 cattle for the same time period for a minimum of two years beginning in 2013. In the North Pasture of the Denio Allotment prior to the Lost wildfire, one permittee was authorized to graze 288 cattle from June 16 to October 15 annually. Also as a result of the temporary grazing closure, the entire North Pasture will be rested from livestock grazing for a minimum of two years beginning in 2013.

The Home Camp and Denio Allotments do not lie within a wild horse Herd Management Area (HMA). Wild horse use in these allotments is a result of horses straying outside of an HMA on occasion. In 2011, all wild horses were removed from Home Camp Allotment during the High Rock Complex gather.

3.4. Soils

The soil classification for the Home Camp and Denio Allotment is contained in the Surprise-Home Camp Soil Survey (an Order III soil survey). The soil survey has been updated by the Natural Resources Conservation Service (NRCS) Reno State Office to current standards and can be found on the NRCS web site.

The affected soils at Paso Spring are the Devada-Reywat-Bitner association (R023XY031NV—Claypan 10-14 P.Z.) and the Hutchley-Cavin-Zorromount association (R023XY008NV—Mountain ridge). These soils are formed by mountain ridges and

summits of fan remnants and are modestly shallow soils with an underlying bedrock component. The soils at Pothole Springs are Esmod-Powlow association (Ecological site: R023XY059NV—Gravelly claypan 10-12 P.Z.) and Weezweed-Emagert-Wetvit association (Ecological site: R023XY005NV—Dry floodplain). These soils are formed by transported soils from the uplands and the landform is considered summits of fan remnants and stream terraces. These soils are moderately deep to deep soils with no restrictive layer.

Soils within the riparian zone are composed of primarily hydric soils typical of wetland areas that were deposited from upland terraces. High levels of organic matter exist in these soils compared to upland soils. Riparian soils are subject to compaction when mechanical pressure such as cattle hoof action or vehicle travel applied to these soils. This compaction is due to the high amount of saturation present in these soils and clay particles that are easily compacted. Once compaction of riparian soils occurs, the water holding capacity of the soils is reduced and soil erosion increases as water is not infiltrated into the soil.

3.5. Vegetation/T& E Species/ Special Status Plant Species

Vegetation within the riparian zone consists primarily of vegetation including riparian obligate rushes and sedges such as Baltic rush (*Juncus balticus*) and Nebraska sedge (*Carex nebrascensis*). Forb diversity is currently low at the riparian sites. In areas where soil erosion and dewatering has occurred, bluegrass (*Poa* species) and Missouri iris (*Iris missouriensis*) have begun to invade areas that were previously dominated by riparian obligate species. Upland species adjacent to the riparian sites include low sagebrush (*Artemisia arbuscula*), Sandberg's bluegrass (*Poa secunda*), bluebunch wheatgrass (*Pseudoroegneria spicata*), squirreltail (*Elymus elymoides*) and common forbs associated with sagebrush steppe environments including *asteraceae*, *eriogonum*, and *lomatium* species. The vegetation surrounding the project sites is typical of sage-steppe environments and is dominated by sagebrush species and perennial bunchgrasses and native forbs. No threatened or endangered or special status plant species exist in or adjacent to the project area, and based on soil mapping there is a low probability of occurrence; therefore, special status plants will not be discussed further.

3.6. Wetlands and Riparian/Water Quality

Riparian resources and water quality at Paso and Pothole Springs are below BLM Land Health Standards due primarily to livestock grazing. Both springs are in poor condition with little to no vegetation cover, severe soil erosion and mechanical alteration of soils, loss of vegetation diversity, and high evaporation rates and loss of water holding capacity within the riparian zone. Broken troughs and livestock watering infrastructure within the riparian zone at both project sites has continued to contribute to poor riparian conditions at these sites. Livestock use is currently concentrated in the riparian zone and is contributing to soil erosion and dewatering of the riparian zone. Due to little vegetative cover at these sites, high evaporation rates occur and water quality has been decreased from fecal coliform and droppings from livestock in the waterway. High nutrient and sediment loads exist within the waterways primarily due to removal of vegetation and defecation in the waterway.

3.7. Wildlife/T&E Species, BLM Sensitive Species/Migratory Bird Species

No known T&E species or their habitats are found at the project site therefore T&E species will not be discussed further.

Pygmy Rabbit

A survey was conducted for pygmy rabbits in and around the project sites in areas that appeared to be suitable for building burrows but neither pygmy rabbit burrows nor rabbits were found. Therefore pygmy rabbits will not be discussed further.

Greater Sage-Grouse

In March 2010, the USFWS announced its listing decision for the Greater sage-grouse (*Centrocercus urophasianus*) as “warranted but precluded”. At this time the species is officially considered a Candidate Species for listing, but does not receive statutory protection under the ESA. Candidate species designation means the USFWS has sufficient information on biological vulnerability and threat(s) to support issuance of a proposed rule to list, but issuance is precluded by higher priority listing actions. Individual states continue to be responsible for managing sage-grouse. “Candidate species and their habitats are managed as Bureau sensitive species”, (BLM Manual 6840, December 2008). The Greater sage-grouse is discussed below.

The Greater sage-grouse (*Centrocercus urophasianus*) is a large gallinaceous bird associated with sagebrush steppe habitats. Sage-grouse breed at communal strutting grounds (“leks”) where males display for females. Leks are located in open, low sagebrush habitats or in other areas with sparse, low vegetation. Sage-grouse females nest most commonly within two miles of the lek; but some females may nest much further away depending on surrounding habitat conditions (Knick and Connelly, 2011).

Sage-grouse nest on the ground, most often under taller sagebrush cover (15-38% shrub canopy; 36 -79 cm shrub height) such as the “big” sagebrush types and Wyoming sagebrush (Connelly, 2000). Successful nesting habitat generally contains taller grass cover in association with this sagebrush (Connelly, 2000) although there is some variability across the range of sage-grouse. Although many nests have been found in lower quality habitats (i.e. rabbitbrush dominated habitats or habitats with lack of perennial grasses and nesting cover) these are almost always unsuccessful due to nest abandonment and predation. Sage-grouse utilize sagebrush as both winter and nesting habitat. Sage-grouse feed on sagebrush buds and forbs throughout much of the year, especially early spring through fall. Peak egg-laying and incubation varies from late March through mid-June, with re-nesting stretching into early July. Brood-rearing habitats are wet meadow and riparian areas where the young can find insects which are critical to supply protein during the first few weeks of life. Estimated summer home range is 2.5 – 7 km² (618-1,730 ac) (Connelly, 2000). Forbs are important food sources for brood rearing and pre-nesting hens.

Greater sage-grouse are the only known BLM sensitive species that occur in or around the project sites. Both project sites are located within PPH habitat. Sage-grouse sign was found at both spring sites, indicating use of these areas. Sage-grouse use in and around the project site is associated with sage-grouse brood rearing and watering during the summer months. The presence of riparian habitat, surface water, and higher amounts of dropping and observed birds found at both spring

sites and in the adjacent uplands indicate these springs are important to sage-grouse as summer and brood rearing habitat. Active sage-grouse strutting grounds are within approximately 3.5 miles of Paso and Pothole Springs. Two inactive/historic leks are located within approximately .5 miles and 1.5 miles respectively. Aerial and ground lek surveys have not found any sage-grouse on leks at these two sites in recent years.

West Nile Virus

The recent Federal Register publication pertaining to sage-grouse states "...a complex set of environmental and biotic conditions that support the West Nile virus cycle must coincide for an outbreak to occur. Currently the annual patchy distribution of the disease is keeping the impacts at a minimum" (Federal Register 2010, at page 13970).

Other Native Wildlife

The area around all the springs and associated riparian areas is considered summer pronghorn antelope habitat and areas around both springs is considered summer habitat for mule deer. Coyote, various rodents, rattlesnakes, and black-tailed jack rabbits or their sign have also been noted in the general area of these projects. Other sagebrush obligate birds are expected to use the general area. During one field visit, raptors were noted in the general area around Paso Spring. Bats likely use the riparian areas for foraging on insects although no bats or their sign was observed during field visits, likely as a result of the timing of field visits.

Migratory Birds

Migratory birds including neo-tropical birds primarily use riparian sites in the SFO, including Paso and Pothole Springs as stopover habitat during migration and for water and forage (insects and invertebrates) during the summer months. None of the springs contain enough water to attract large concentrations of migratory birds or migratory waterfowl species. Riparian habitat is very important for passing migratory birds as water and foraging sites during migration periods where large amounts of energy are used and birds carry little to no fat reserves.

3.8. Visual Resources

BLM's Visual Resource Management (VRM) system provides a way to identify and evaluate scenic values to determine the appropriate levels of management. It also provides a way to analyze potential visual impacts and apply visual design techniques to ensure that surface-disturbing activities are in harmony with their surroundings. The VRM system is categorized as follows:

Class I Objective: To preserve the existing character of the landscape. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II Objective: To retain the existing character of the landscape. The level of change to the characteristic landscape should be low.

Class III Objective: To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate.

Class IV Objective: To provide for management activities which require major modification of the existing landscape character. The level of change to the characteristic landscape can be high.

Paso and Pothole Springs developments are located within VRM class IV. Water developments would be classified as a major modification to the existing landscape character. Since the spring is within class IV, major modifications can occur. The slopes are relatively steep and the drainages are curvilinear. Rock outcrops add a rugged element to the landscape and are generally dark brown in color. Soils vary in color from grayish-brown to brown. Vegetation is a mixture of grey-green, green, and light brown in color, and occurs in mosaics of grasses and grasses with shrubs. The converging lines of the canyon focus the observer's attention on the path of the drainage.

Chapter 4. Environmental Effects:

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4.1. Cultural Resources

PROPOSED ACTION – In 2012 the Surprise Field Office (SFO) conducted National Historic Preservation Act (NHPA) Section 106 compliance inventories for the project area. The inventories are designed to identify any cultural resources that may be affected by impacts associated with grazing. As a result of the inventories the SFO identified cultural resource sites that were being impacted by grazing on the Denio and Home Camp Allotments. Two such sites are associated with the proposed project. Both sites are prehistoric sites containing tools and the remnants of stone tool manufacture. One site has been recommended as ineligible for listing on the National Register of Historic Places (NRHP) while the other one has not been formally evaluated for the NRHP but will be treated as eligible for the NRHP until an evaluation is made.

Previous disturbances to the cultural resources are a result of the watering troughs being located within the cultural resource sites. This has resulted in heavy use by cattle and wild horses which are impacting the area by trampling, trailing, wallowing, and soil churning. This has affected cultural resources by causing artifact breakage, horizontal and vertical artifact displacement, and erosion to sub-surface deposits from denuded vegetation and severe soil erosion. In addition to livestock impacts, a two track road runs through the center of the sites causing the same effects to cultural resources as discussed above.

PROPOSED ACTION- The Proposed Action will be limited to previously disturbed portions of the unevaluated site. Consequently, the proposed action will only affect portions of the NRHP unevaluated site that have been so severely impacted by livestock that these areas no longer contribute to the NRHP eligibility of the site. The proposed action would also reduce impacts to cultural resources associated with unevaluated site; under the action the watering troughs would be located outside of the boundaries of the site thereby reducing impacts to the cultural resources. It is expected that there would be less trailing through the cultural resource site under this alternative. Overall, this proposed action will help to prevent future impacts to the unevaluated site.

Under the proposed action, a Cultural Resource Specialist will be present to monitor for inadvertent discoveries during the installation of the pipeline.

No mitigation is recommended for the NRHP ineligible site.

NO ACTION - Under the No Action Alternative impacts to the NRHP unevaluated site would continue to occur, which could result in loss of integrity and degradation of the site.

ENHANCED RIPARIAN RECOVERY ALTERNATIVE- Similar to the Proposed Action, the Enhanced Riparian Recovery Alternative would reduce impacts to cultural resources by reducing trailing, wallowing, and trampling by livestock on the unevaluated site. Damage from removing the existing bottomless trough, spring box, and pipes would be limited to previously disturbed portions of the site which no longer contribute to the site's NRHP eligibility.

No mitigation is recommended for the NRHP ineligible site.

4.2. Invasive and Non-Native Species

PROPOSED ACTION – The Proposed Action is not expected to increase the spread of noxious weeds, as there are only very small known infestations of noxious weeds (Bull Thistle) in the existing project areas to date and increasing native plant cover is expected to reduce the probability

of noxious weeds becoming established. Weeds which are introduced or become established in the project areas would be detected early with continued vigilance, and these sites would be expected to be treated under the current weed management program. Construction of enclosure fences around the sensitive resources and relocating watering troughs will reduce the likelihood of weed infestations in the future by increasing riparian plant cover and improving ecological conditions.

Under the Proposed Action, project construction and vehicles traveling through infested sites into the project areas could provide an opportunity for weeds to become introduced. The cleaning of construction vehicles before entering the project sites would reduce or eliminate this possibility. Implementation of the proposed action would allow disturbed riparian sites to recover and thus, lesson the likelihood of weeds invading the sites. Public use and driving to the spring sites via current access roads could serve as a potential vector for weed introduction by inadvertently bringing in weed seeds and other reproductive parts of noxious weeds. This risk is considered low due to the low amount of visitor use.

NO ACTION – Paso Spring and Pothole Spring may be at increased risk of weed introduction under the No Action Alternative. These riparian areas are used by livestock to water and are at increased risk of soil disturbance and declining ecological condition and are therefore vulnerable to invasion by invasive and noxious weeds. Vehicles accessing the spring sites via current access roads could serve as a potential vector for weed introduction by inadvertently bringing in weed seeds and other reproductive parts of noxious weeds.

ENHANCED RIPARIAN RECOVERY ALTERNATIVE-

The Enhanced Riparian Recovery Alternative is not expected to increase the spread of noxious weeds, as there are only very small known infestations of noxious weeds (Bull Thistle) in the existing project areas to date and increasing plant native plant cover is expected to reduce the probability of noxious weeds becoming established. Weeds which are introduced or become established in the project areas would be detected early with continued vigilance, and these sites would be expected to be treated under the current weed management program. Construction of enclosure fences around the sensitive resources will reduce the likelihood of weed infestations in the future by increasing riparian plant cover and improving ecological conditions. Under this alternative, off-site water would not be installed, which would reduce soil disturbance associated with watering sites, which would slightly reduce the probability of invasive plant establishment.

Under this alternative, project construction and vehicles traveling through infested sites into the project areas could provide an opportunity for weeds to become introduced. The cleaning of construction vehicles before entering the project sites would reduce or eliminate this possibility. Implementation of the proposed action would allow disturbed riparian sites to recover and thus, lesson the likelihood of weeds invading the sites. Vehicles accessing the spring sites via current access roads after the projects were completed could serve as a potential vector for weed introduction by inadvertently bringing in weed seeds and other reproductive parts of noxious weeds.

4.3. Livestock Management

PROPOSED ACTION – Livestock management on both allotments would remain relatively unchanged. Cattle numbers and season of use in the affected areas would remain the same; however, due to the relocation of the Pothole Spring trough and the newly constructed enclosure and water trap at Paso Spring, cattle may have to be trailed to the troughs initially to get them

adapted to the new location. Cattle would have improved water for drinking due to less fecal coliform and bacterial contamination in functioning livestock troughs when compared to the current conditions where cattle water from the ground. Slight benefits relating to livestock weight gains would also result from the Proposed Action due to cattle spending less time waiting for water in the riparian zone and more time foraging in the uplands.

NO ACTION - The No Action Alternative would have no effect on current livestock management for either allotment. At Paso Spring, the water trap fence and construction of the enclosure would not occur. Cattle would continue to water at the current riparian locations in both allotments. However, without the redevelopment of the water infrastructure at both of these sites, water facilities for livestock would remain broken and non-functional, resulting in cattle drinking water that is of poorer quality due to higher levels of fecal coliform and bacterial contamination that would not exist if water was provided in a functional trough .

ENHANCED RIPARIAN RECOVERY ALTERNATIVE - Under the Enhanced Riparian Recovery Alternative, livestock management options in the Home Camp Allotment in the Hart Camp use area would be reduced compared to the No Action Alternative and Proposed Action due to livestock no longer having access to water at both Paso and Pothole Springs. This would result in less available areas to graze within the Hart Camp use area due to lack of water around Paso and Pothole Springs. In the short term this could result in localized overuse within the Hart Camp use area and more livestock use at the other water sources within the pasture. In the long term, reductions in the carrying capacity of the use area would be expected due to less upland areas that are available for grazing compared to current conditions and increased use at the remaining water sources compared to current conditions. This would slightly negatively affect livestock operations for the four Home Camp Allotment permittees.

In the Denio Allotment, Paso Spring provides water for livestock in the North Pasture of the Denio Allotment. Under the Enhanced Riparian Recovery Alternative, Paso Spring would be fenced off and no off-site water would be developed, therefore livestock management options in the Denio Allotment in the North Pasture would be reduced compared to the No Action and Proposed Action Alternatives. This would result in less available areas to graze within the North Pasture due to livestock no longer having access to water at Paso Spring. In the short term this could result in localized overuse within the North Pasture and more livestock use at the other water sources within the pasture. In the long term, reductions in the carrying capacity of the pasture would be expected due to less upland areas that are available for grazing compared to current conditions and increased use at the remaining water sources compared to current conditions. This would slightly negatively affect livestock operations for the one Denio permittee.

4.4. Soils

PROPOSED ACTION – In the proposed Paso Spring enclosure an additional 27 acres would be protected from livestock grazing, organic matter would increase but would not be incorporated into the soil as fast as it would from the hoof action of cattle. An additional 27 acres of soils within the enclosure would no longer receive impacts from livestock such as trampling and compaction at watering sites; however, these impacts would occur at the new trough locations and along fencelines totaling less than one acre. Riparian soils within the proposed enclosure at Paso Spring would no longer be impacted by livestock trampling, shearing and compaction. Livestock use would continue to impact upland soils in the form of trampling and compaction near watering sites and along fencelines. At Pothole Spring, the off-site water location would reduce impacts to hydric riparian soils within the 5 acre riparian zone. Soil impacts around the

new trough location would be increased and soil compaction and loss of vegetation at the trough location would occur but is not expected to exceed $\frac{1}{4}$ acre of impacts.

NO ACTION – Under the No Action Alternative the protective enclosure at Paso Spring and the off-site watering facility at Pothole Spring would not be constructed and impacts to approximately 32 acres of upland and riparian soils around the current watering sites would continue unabated. Impacts would include hoof action on hydric riparian soils, increased soil erosion, hummocking and pocking of riparian soils and large amounts of bare ground. No new fencelines would be built under this alternative and there would be no livestock trailing around fencelines that would result in soil compaction and erosion. This impact would be slight due to the fencelines affecting very small areas of soils.

ENHANCED RIPARIAN RECOVERY ALTERNATIVE- In the proposed Paso Spring enclosure an additional 27 acres would be protected from livestock grazing, organic matter would increase but would not be incorporated into the soil as fast as it would from the hoof action of cattle. An additional 27 acres of soils within the enclosure would no longer receive impacts from livestock such as trampling and compaction at watering sites. These impacts would not occur outside the enclosure as new trough locations would not be installed, this would total less than 1 acre. Riparian soils within the proposed enclosure at Paso Spring would no longer be impacted by livestock trampling, shearing and compaction. Livestock use would continue to impact upland soils in the form of trampling along fencelines. At Pothole Spring, an enclosure would remove impacts to hydric riparian soils within the 5 acre riparian zone. No new trough would be installed under this alternative and soil compaction and loss of vegetation at the trough location would not occur.

4.5. Vegetation, Threatened and Endangered Species

PROPOSED ACTION – Up to $\frac{1}{8}$ th acre of sagebrush mechanically removed at the new trough locations would be lost. Over time, sagebrush in the immediate vicinity of the troughs would become trampled and otherwise be lost as result of livestock concentrating in the area while watering, resulting in the loss of up to a total of $\frac{1}{2}$ acre at Paso Spring. Herbaceous vegetation in a localized area around the troughs would also be lost to livestock grazing and trampling. The actual disturbed area is expected to be $\frac{1}{4}$ acre at each trough location. The existing trough sites within the riparian area at Paso Spring would be located within the proposed enclosure, and therefore vegetation would recover in long term to conditions expected at ecological site potential.

In the short term, perennial grasses within the additional 27 acre enclosure at Paso Spring would see improved vigor with the absence of livestock grazing. Approximately 15 acres of riparian vegetation within the enclosure at Paso Spring would recover and increase in density and diversity. In the long term, plant community diversity would be increased and plant communities would shift towards communities dominated by riparian obligate species including sedges and rushes. In the long term without disturbance, vigor of upland perennial grasses could decline as standing dead litter is not removed and incorporated into the soil. At Pothole Spring, the upland vegetation around the proposed new trough would be lost but riparian vegetation would be expected to improve in composition and vigor. At Pothole Spring, cattle would primarily water outside of the riparian zone; however, grazing within the riparian area is expected to continue to occur. For these reasons, improvements at Pothole Spring are expected to be slower than at Paso Spring due to the fact that only cattle watering impacts, not cattle grazing impacts, would be removed from the riparian zone.

NO ACTION – Vegetation, including riparian communities in the localized area around the troughs at the project sites would continue to receive impacts from livestock such as heavy grazing and trampling. Riparian plant communities would not improve and would continue to shift from riparian obligate plant communities to riparian facultative or upland communities as degradation continued unabated. Plant community diversity would likely remain low under the No Action Alternative.

ENHANCED RIPARIAN RECOVERY ALTERNATIVE- Under this alternative, no troughs would be installed at Paso and Pothole Springs and sagebrush loss in the immediate vicinity of the troughs would not occur. The existing trough sites within the riparian area at Paso Spring would be located within the proposed enclosure, and therefore vegetation would recover in long term to conditions expected at ecological site potential.

In the short term, perennial grasses within the additional 27 acre enclosure would see improved vigor with the absence of grazing. Approximately 15 acres of riparian vegetation within the enclosure at Paso Spring would recover and increase in density and diversity. In the long term, plant community diversity would be increased and plant communities would shift towards communities dominated by riparian obligate species including sedges and rushes. In the long term without disturbance, vigor of upland perennial grasses could decline as standing dead litter is not removed and incorporated into the soil. At Pothole Spring, riparian vegetation within the enclosure would be expected to improve in composition and vigor. Cattle would be excluded from the riparian zone with an enclosure under this alternative; therefore improvements in riparian vegetation at this site are expected to be similar to those at Paso Spring.

4.6. Wetland and Riparian Zones

PROPOSED ACTION – At both spring sites, the Proposed Action would divert water from the water collection system to the troughs during the grazing season, and the troughs would be floated to prevent water running out onto the ground around the trough. This would change existing water flow patterns during the period when livestock were in the pastures for scheduled use. Livestock use is expected to move away from the riparian area at Pothole Spring and some amount of riparian habitat is expected to recover within the riparian zone. Riparian habitat at Paso Spring would benefit by protecting it from any livestock impacts. Riparian vegetation in the enclosure would be expected to spread somewhat, with the loss of sagebrush in the riparian zone eventually occurring.

NO ACTION – The enclosures would not be built at Paso Spring and off-site water out of the riparian area would not developed at Pothole Spring; therefore riparian habitat in this area would not be protected from livestock use. Riparian habitat at both spring sites would continue to be impacted by both livestock and would not improve.

ENHANCED RIPARIAN RECOVERY ALTERNATIVE- Under this alternative, water would not be diverted from the riparian zone to troughs and an increase in available water within the riparian zone would occur. This would change existing water flow patterns and increase the riparian zone slightly. Riparian habitat at Paso and Pothole Spring would benefit from protection from any livestock impacts. Riparian vegetation in the enclosure would be expected to spread somewhat, with the loss of sagebrush in the riparian zone eventually occurring.

4.7. Wildlife/T&E Species, BLM Sensitive Species/Migratory Bird Species

PROPOSED ACTION - Late summer brood rearing habitat for sage-grouse would benefit by expected improvements to riparian habitat at Paso Spring and Pothole Spring, although improvements at Pothole Spring will be less than Paso Spring due to livestock use still occurring at that site. Expected improvements include increasing the size of riparian habitat and increased availability of yearlong water on the ground. Increasing yearlong water availability would benefit many other wildlife species as well including stopover migratory birds. When water is present in the troughs they are also expected to be used by big game, birds, small mammals, and to some extent bats. The use of approved escape ramps would reduce chances of wildlife drowning in the troughs and fence placement away from the troughs would reduce the chances of bird or bat collisions. Removal of the old fencing that is no longer needed would reduce the possibility of wildlife entanglements. Negligible short term negative effects would occur to sage-grouse and other wildlife by blocking access to water during construction activities. Effects to sage-grouse and other wildlife from fencing would be mitigated by building fences to BLM specifications including adding permanent markers to fences to reduce the possibility of sage-grouse or bats strikes.

As perennial grasses within the Paso Spring enclosure increased, wildlife use would increase under the Proposed Action. Higher amounts of nesting would occur for sagebrush obligate species such as sage-grouse, sage thrasher sage sparrow, and Brewer's sparrow as well as small mammals. Hiding and thermal cover would be created for larger animals including mule deer and pronghorn antelope.

It is anticipated that $\frac{1}{4}$ acre of sage-steppe habitat would be lost around the new troughs areas at both springs due to cattle watering at those sites. A total of 15 acres of riparian habitat would be completely protected at Paso Spring and 5 acres of riparian habitat would improve at Pothole Spring. It is anticipated that overall, the proposed action would have minor benefits to wildlife species in the area.

With new troughs being installed under the Proposed Action, potential mosquito habitat would be slightly increased; this could lead to a slightly higher probability of West Nile Virus existing in the area, which would lead to a slightly higher probability of individual sage-grouse being affected by the virus.

NO ACTION – Wildlife including sage-grouse would not benefit from improved riparian habitat in the Paso Spring enclosure. The enclosure would not be built therefore wildlife would not benefit from the increased cover and forage from a new enclosure. Additional loss of habitat or moving the placement of troughs would not occur and the possibility of impacts such as bird collisions or strikes from the creation of additional fences would not occur. Habitat within the Pothole Spring site would also not improve as cattle would continue to water within the riparian zone.

The troughs at Paso and Pothole Springs currently do not hold any work or function. No new troughs would be installed under this alternative, potential mosquito habitat would remain unchanged and probability of sage-grouse being affected by West Nile Virus would remain unchanged.

ENHANCED RIPARIAN RECOVERY ALTERNATIVE - Late summer brood rearing habitat for sage-grouse would benefit by expected improvements to riparian habitat at Paso Spring and

Pothole Spring, improvements at Pothole Spring would be greater than the proposed action due to livestock use not occurring at that site. Expected improvements include increasing the size of riparian habitat and increased availability of yearlong water on the ground. Increasing yearlong water availability would benefit many other wildlife species as well including stopover migratory birds. When water is present in the troughs they are also expected to be used by big game, birds, small mammals, and to some extent bats. Removal of the old fencing that is no longer needed would reduce the possibility of wildlife entanglements. Negligible short term negative effects would occur to sage-grouse and other wildlife by blocking access to water during fence construction activities. Effects to sage-grouse and other wildlife from fencing would be mitigated by building fences to BLM specifications including adding permanent markers to fences to reduce the possibility of sage-grouse or bats strikes.

As perennial grasses within the Paso Spring enclosure increased, wildlife use would increase under the Proposed Action. Higher amounts of nesting would occur for sagebrush obligate species such as sage-grouse, sage thrasher sage sparrow, and Brewer's sparrow as well as small mammals. Hiding and thermal cover would be created for larger animals including mule deer and pronghorn antelope.

The ¼ acre of sage-steppe habitat would be lost around the new troughs areas at both springs due to cattle watering at those sites under the proposed action would not occur under this alternative. A total of 15 acres of riparian habitat would be completely protected at Paso Spring and 5 acres of riparian habitat would be completely protected at Pothole Spring. It is anticipated that overall, this alternative would have slightly higher benefits to wildlife species in the area than the proposed action.

No new troughs would be installed under this alternative, potential mosquito habitat would remain unchanged and probability of sage-grouse being affected by West Nile Virus would remain unchanged.

4.8. Visual Resources

PROPOSED ACTION - The Proposed Action will modify the landscape moderately but is consistent with the VRM allowable class level. None of the project sites are located within a special designation area e.g. Wilderness, WSA, NCA. Project construction is not expected to have a large effect on the existing landscape.

Very limited visual impacts would occur to the natural landscape and visual resources due to the proposed action since similar actions and water development occur within proximity to the site. Class IV allows for high impacts to happen in turn this action is consistent with the RMP designation.

NO ACTION - The No Action Alternative would not allow construction to occur and there would be no impacts on Visual Resources.

ENHANCED RIPARIAN RECOVERY ALTERNATIVE- None of the project sites are located within a special designation area e.g. Wilderness, WSA, NCA. Project construction is not expected to have a large effect on the existing landscape.

Very limited visual impacts would occur to the natural landscape and visual resources due to the proposed action since similar actions and water development occur within proximity to the site. Class IV allows for high impacts to happen in turn this action is consistent with the RMP

designation. Impacts to visual resources would be slightly less than the proposed action due to no livestock troughs being installed at Paso Spring and Pothole Spring.

4.9. CUMULATIVE IMPACTS

Cumulative impacts are the “incremental impacts of a proposal when added to other past, present, and reasonably foreseeable future actions, regardless of which agency or person undertakes them” (40 Code of Federal Regulations 1508.7)

Cumulative Impacts to Affected Resources

Past, Present, and Reasonably Foreseeable Future Actions

The Cumulative Assessment Area for this EA is the Denio and Home Camp Allotments. For the Denio and Home Camp Allotments, past actions include over-utilization of forage resources that resulted in a decrease in the composition and production of native bunchgrass, the loss of riparian vegetation, and degradation of some cultural resources. To implement provisions of the Taylor Grazing Act, and the Home Camp and Denio Allotment Management Plans, a variety of range improvements projects were constructed on the allotments. The projects include fences, cattleguards, wells, spring developments, vegetation treatments, seedings and reservoirs. Prior to the 1970s, impacts to cultural resources from recreation and grazing had not been addressed on either of these allotments and the NHPA Section 106 processes were not applied to a number of range improvement projects.

Impacts of present actions include the maintenance of existing projects and continued grazing as authorized. Grazing would continue as authorized in both allotments and range improvement projects would be maintained. Authorized grazing and all future range improvement projects would be subject to the NHPA Section 106, all applicable BLM/SHPO protocols, and environmental requirement including NEPA requirements. Wild horses that drift in both allotments are expected to be gathered or returned to the adjacent High Rock HMA in the future. BLM would continue to conduct monitoring and project inspections to determine if the projects accomplished LUP goals and objectives.

Cumulative impacts of the proposed action would be slight, if any. Combined, the enclosure and off-site water would provide approximately an additional 30 acres of high quality habitat for wildlife. This would have benefits to a variety of birds, small mammals, and big game by providing nesting and hiding cover, forage, and a readily available source of water at ground level. New troughs outfitted with escape ramps would reduce or eliminate wildlife drowning at these water sources and new roads are expected to be used on a very limited basis. Additional fencing would have negligible negative impacts to wildlife due to the wildlife mitigations described above and some beneficial cumulative impacts would be provided to wildlife, riparian, and cultural resources.

Grazing would continue as authorized on both allotments. Permittees on both allotments would be required to maintain fences and water developments. These impacts would be negligible. While livestock would continue to graze affected pastures annually, the proposed action is unlikely to change utilization patterns or affect basic plant communities and plant community seral stages within the pastures affected by the project area. Cumulative impacts of the No Action Alternative would continue to be localized to Paso Springs and Pothole Springs, but riparian, cultural and wildlife resources would continue to be impacted by cattle grazing. Not constructing the enclosure

would have less of a cumulative impact on permittees' livestock operations when compared with the Proposed Action. The additional projects would increase their maintenance costs, but the improved water system would improve livestock water availability in the allotments. The overall cumulative impact of the No Action Alternative would be irrelevant to grazing management.

Since both springs were originally developed as livestock watering sites, the cumulative impacts of the No Action Alternative to the riparian resources at the springs, including soil disturbance and some soil erosion in the surrounding area would likely be slight. This period of use has not resulted in any noxious weed invasion at the springs besides Bull Thistle, which has been treated. However, the possibility of invasive weed introduction still exists if disturbance from livestock continues. Cumulative impacts are expected to be minor to special status species since sage grouse is the only sensitive species known to use the proposed project areas.

Reasonable and foreseeable future actions would include additional fencing at degraded riparian sites in both allotments and moving troughs out of riparian zones and into the uplands. Additional fencing would provide protection to these important habitats. Wildlife management activities including monitoring sage-grouse and lek surveys would continue. Grazing would continue as authorized on both allotments and maintenance of range improvement projects would continue. Recreation use in both allotments is expected to continue at similar levels as today.

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Chapter 5. Tribes, Individuals, Organizations, or Agencies Consulted:

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Table 5.1. PERSONS, GROUPS, AND AGENCIES CONSULTED

Name	Purpose & Authorities for Consultation or Coordination	Findings & Conclusions
NDOW	State agency responsible for wildlife resources	Comments received, comments incorporated into EA.
Fort Bidwell Tribe	Native American Tribe	No concerns expressed
Will and Debra Cockrell	Permittee	No comments received
Western Watersheds Project	Interested Party	Comments received, including an alternative for analysis. Comments and alternative incorporated into EA.
Missy Merrill-Davies, Chairperson Modoc/Washoe ESP	Interested Party	No comments received
Jim Cockrell	Permittee	No comments received
Betty Cockrell	Permittee	No comments received
Grove Brothers	Permittee	No comments received
Robert Cockrell	Permittee	No comments received
Cedarville Rancheria	Native American Tribe	No Concerns Expressed
Summit Lake Paiute Tribe	Native American Tribe	No Concerns Expressed
Bill Phillips	Interested Party	Comments received and incorporated into EA
Robert R. Depaoli	Permittee	No comments received
Mel & Judy Hein	Permittee	No comments received
Nevada Bighorns Unlimited	Interested Party	No comments received
Modoc County Fish, Game and Recreation Commission	Interested Party	No comments received
Nevada State Clearinghouse	Interested Party	No comments received
Meghan L. Brown Rural Representative for Congressman Mark Amodei	Interested Party	No comments received
Paul Davis	Interested Party	No comments received

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Chapter 6. List of Preparers

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Table 6.1. List of Preparers

Name	Title	Responsible for the Following Section(s) of this Document
Scott Soletti	Wildlife Biologist/Noxious Weeds Coordinator	Wildlife, Migratory Birds, T&E Flora and Fauna, Vegetation, Riparian/Water quality
Steve Surian	Sup. Rangeland Management Specialist	Livestock Management, Soils
Jennifer Rovanpera	Archaeologist	Cultural Resources, Paleontology
Roger Farschon	Ecologist	EA Preparation
Dan Ryan	Lands/Realty/Recreation Specialist	Visual Resources
Ali Urza	Natural Resource Specialist	EA Preparation

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