United States Department of the Interior Bureau of Land Management

Environmental Assessment

DOI-BLM-CA-N020-2022-0012-EA



Mud Well Range Improvement – Massacre Mountain



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1.0 Introduction

This Environmental Assessment (EA) is being prepared to disclose and analyze the environmental consequences of developing and maintaining an existing well on the Massacre Mountain Allotment. The EA is a site-specific analysis of potential impacts that could result with the implementation of alternatives resulting in the development of the Mud Well range improvement. The EA assists the Bureau of Land Management in project planning and ensures compliance with the National Environmental Policy Act (NEPA), as well as other laws and policies affecting the alternatives.

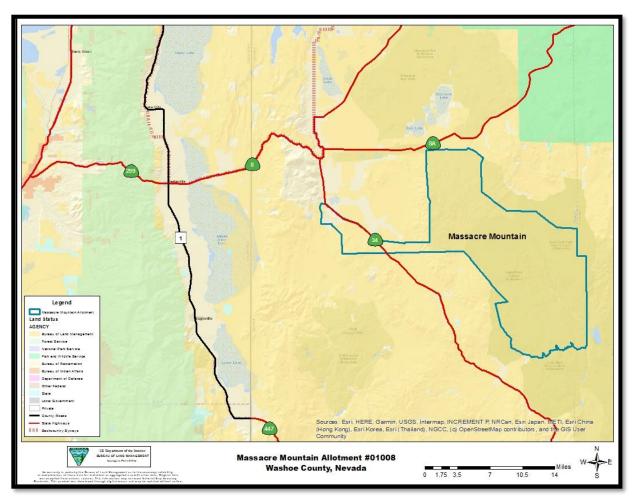


Figure 1: Location of Massacre Mountain Allotment

1.1 Background

The Massacre Mountain Allotment (#01008) is located in Washoe County, Nevada, approximately 30 miles east of Cedarville, California (*Figure 1*). The proposed project would be located at T.42N R.22E Section 7 (*Figure 2*). Massacre Mountain Allotment contains a total of 149,059 acres managed by the Applegate Field Office (AGFO). The allotment is part of the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area (NCA). There are two permittees that hold the two grazing permits for the allotment.

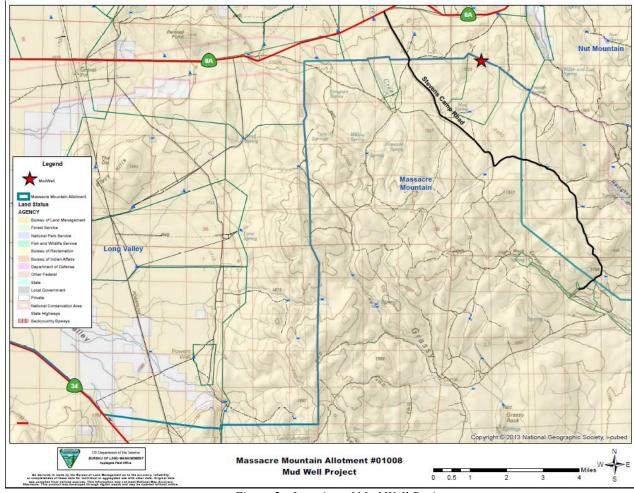


Figure 2: Location of Mud Well Project

1.2 Purpose and Need for Action

The purpose of the action is to improve livestock distribution and relieve pressure on riparian areas within the Massacre Mountain Allotment.

The action is needed because there is no water in this area of the allotment and livestock are concentrating in sensitive riparian habitat in other parts of the allotment

1.3 Decision to be Made

Based upon the analysis in this EA, the authorized officer would issue a determination of the significance of potential environmental impacts and whether an Environmental Impact Statement (EIS) is required. If an EIS is not required, this EA would provide the information necessary for the Authorized Officer to make an informed decision to grant, grant with revision or deny the proposed action through a decision record accompanied by a Finding of No Significant Impact (FONSI) statement, documenting the reasons why implementation of the selected alternative would not result in "significant" environmental impacts.

1.4 Issues Identified for Analysis

The Applegate Field Office conducted internal scoping with an interdisciplinary team of specialists, including specialists from the Black Rock Field Office. Resource issues identified include:

- How would the water development impact cultural resources and Native American Concerns?
- How would the water development impact livestock grazing and range management?
- How would the water development and associated grazing impact soil resources?
- How would the water development and associated grazing impact vegetation and noxious weeds?
- How would the water development impact wildlife?

Determination	Issue	Rationale for Determination
NP	Air Quality	Resource Not Present
NP	Areas of Critical Environmental Concern	Resource Not Present
PI	Cultural Resources/Native American Concerns	Potentially Impacted
NP	Environmental Justice	Resource Not Present
NP	Farmlands (Prime or Unique)	Resource Not Present
NP	Forestry & Fuels Reduction	Resource Not Present
PI	Rangelands/Livestock Grazing Management	Analyzed within this EA
PI	Vegetation/Noxious Weeds	Analyzed within this EA
NP	Recreation	Resource Not Present
PI	Soils	Analyzed within this EA
PI	Threatened or Endangered Species	Analyzed within this EA
NI	Visual Resources	Analyzed within this EA/Planned Mitigation Measures
NP	Wastes, Hazardous or Solid	Resource Not Present
NP	Water Quality	Resource Not Present
NP	Wetlands/Riparian Zones	Resource Not Present
NI	Wild Horses and Burros	Resource Not Impacted
NP	Wild and Scenic Rivers	Resource Not Present
NP	Wilderness and Wilderness Study Areas	Resource Not Present
PI	Wildlife	Analyzed within this EA

1.5 Land Use Plan Conformance

The Proposed Action and No Action Alternative are in conformance with the Surprise Resource Management Plan, (DOI BLM 2007) and the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area (NCA). The Massacre Mountain Allotment is designated for livestock grazing under in Section 3.9.3 (page 3-51) of the Surprise RMP and Sections 2.2.9 (page 2-23 and A-3) of the NCA RMP. The authorities under which this action may take place are the Taylor Grazing Act of 1934, as amended, the Federal Land Policy and Management Act of 1976, as promulgated through Title 43 of the Code of Federal Regulations (CFR) Subpart 4100 Grazing Administration - Exclusive of Alaska as amended. The specific regulations used to inform this EA can be found at 43 CFR §4120 and are hereby incorporated by reference.

1.6 Standards for Rangeland Health

Grazing use offered or authorized by the BLM is subject to all provisions of the federal grazing regulations (43 CFR Parts 4100) and other applicable laws and regulations. Grazing use would be in accordance with the Rangeland Health Standards and Guidelines for California and Northwestern Nevada Final EIS approved by the Secretary of the Interior on July 13, 2000. Range improvements may be implemented in accordance with regulation to attain progress towards achieving Rangeland Health Standards (4180.1 and 4180.2 Fundamentals of Rangeland Health and Standards and Guidelines for Grazing Administration).

2.0 Proposed Action & Alternatives

2.1 Proposed Action

The Proposed Action would authorize the permittee to install a solar pump, two 500-gallon Powder River water troughs, and two 8'x 8' (approx. 3500 gallons each) storage tanks at the existing Mud Well on public lands in the Massacre Mountain allotment (*Figure 3*). Approximately 0.5 acres of surface disturbance would occur. The well is estimated to be about 200 feet in depth and was pumping 3 gallons per minute when it was originally drilled in October 1962. After recent testing, the well currently pumps at 10+ gallons per minute. This range improvement project would be implemented to improve livestock distribution within the allotment. This is a permittee funded project that would be assigned to the permittee for construction and maintenance through a Cooperative Range Improvement Agreement.

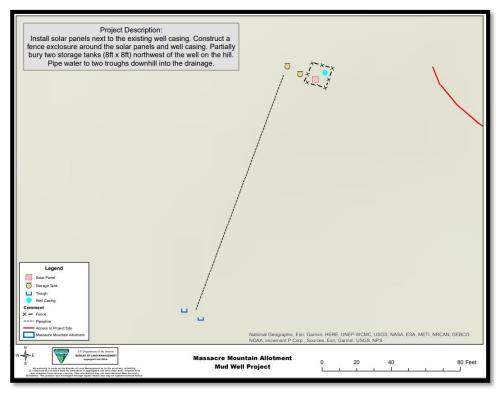


Figure 3: Mud Well Project Design

Project Construction Terms and Conditions

The project area would be surveyed after construction to monitor and treat, as necessary, invasive noxious weeds to ensure they do not become established from the implementation of the Proposed Action.

As part of the Proposed Action, the storage tanks would be partially buried to reduce potential visual impacts and retain the characteristics of the surrounding landscape.

If buried and/or unanticipated cultural materials are discovered during construction activities related to the proposed project, the operator shall immediately stop work that might further disturb or move such materials and contact the Authorized Officer (AO) of the BLM within 24 hours of the discovery. A determination would be made by the AO as to necessary mitigation for the discovered cultural material in consultation with a Field Office Archeologist.

2.2 No Action Alternative

This alternative provides a baseline for comparison of environmental effects and demonstrates what would happen if we did not implement the project. The No Action Alternative is to reject the proposal. The current land and resource uses would continue under present management and no new range improvement would be implemented. Water would continue to be limited for wildlife, cattle, and livestock distribution would continue to be limited.

3.0 Affected Environment and Environmental Consequences

A variety of laws, regulations, executive orders, and policy directives mandate that the impacts of various alternatives on resources required to be considered, referred to as "supplemental authorities", and other resources commonly affected by livestock grazing be considered. Not all of the supplemental authorities that require consideration in this EA are present, or if they are present, may not be affected by the Proposed Action and alternatives. Only those mandatory supplemental authorities that are present and affected, or need to be considered, are described in this section.

Background material related to other resources is available in the Surprise RMP Final Environmental Impact Statement and Proposed Resource Management Plan and the Black Rock Desert—High Rock Canyon Emigrant Trails National Conservation Area and Associated Wilderness and Other Contiguous Lands in Nevada Record of Decision and Resource Management Plan, which are hereby incorporated by reference. Specialist reports pertaining to the below findings are presented in this document.

3.1 Cultural Resources & Native American Concerns

3.1.1 Affected Environment

The project area falls within the ethnographic or traditional territory of the Northern Paiute, more specifically the *Agai Panina Ticutta* band (alternatively referred to as the *aga'ipañinadökadö* or "Fish Lake Eaters") of Summit Lake, Nevada who are predominately associated with the Summit Lake Paiute Tribe today (Bengston 2003). Northern Paiute from other band areas, such as the *Moa Ticutta* (*moadökadö* or "*Wild Onion Eaters*") of Summit Lake and the *Gidutidad* (*kidütökadö or* "Groundhog Eaters") of Surprise Valley, likely passed through the project area vicinity as part of seasonal subsistence rounds as well. Additional information on the Northern Paiute can be found in Fowler and Liljeblad (1986), Kelly (1932), King et al. (2004), and Stewart (1939); these sources are incorporated here by reference.

Historically, the general area (including the Massacre Mountain Allotment) has been used for homesteading and ranching activities such as livestock grazing by Euro-American settlers since the 1860s and largely continues to function in that capacity today. South of the project area is the Lassen-Applegate Trail, encompassed by the Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area (NCA) and High Rock Canyon ACEC as it passes through High Rock Canyon and beyond. This historic emigrant trail, established in 1846 and used predominately until 1851 with more limited use continuing into the 1860s, was intended to serve as a safer southern alternative to the Oregon Trail and is a listed resource

on the National Register of Historic Places. Further information concerning cultural resources and Native American concerns can be found in the Class I Cultural Resource Overview and Research Design for the Alturas, Eagle Lake, and Surprise Resource Areas (2004), Surprise Resource Management Plan, (DOI BLM 2007), and Black Rock Desert-High Rock Canyon Emigrant Trails National Conservation Area (NCA) and Associated Wilderness Resource Management Plan (DOI BLM 2004); these documents are also incorporated by reference.

Approximately 8,500 acres have been previously surveyed within the Massacre Mountain Allotment for cultural resources as part of previous National Historic Preservation Act (NHPA) Section 106-related compliance and/or in accordance with the Supplemental Procedures for Livestock Grazing Permit/Lease Renewals, an amendment to the State Protocol Agreement between the California Bureau of Land Management and the California State Historic Preservation Officer (2014) intended to address the NHPA Section 106 compliance procedures for processing grazing permit/lease renewals, less than six percent of total allotment acreage (149,059 acres). These efforts have resulted in the identification of approximately 260 archaeological sites, including multiple rock shelters and/or caves with evidence of prehistoric occupation, several lithic quarries and/or tool stone sources, historic range-related infrastructure (secondary access roads/routes, water diversion features, corrals, etc.), petroglyph and pictograph sites, rock stack features (predominately hunting-related), lithic and groundstone scatters, the historic Massacre Ranch, and segments of the Lassen-Applegate National Historic Trail. Based on diagnostic materials identified at these sites, the archaeological resources identified in the allotment collectively span an age range from approximately 11,000 years before present to the late 1960s. Although only a fraction of the sites previously identified within the allotment are listed on the National Register of Historic Places, significantly more are recommended eligible for listing and an even higher number have yet to be formally evaluated, meaning they are still considered eligible until determined otherwise and may require further mitigation under the NHPA in the form of site monitoring.

3.1.2 Environmental Impacts—Proposed Action

The Proposed Action would have the potential to reduce congregation of livestock within known site boundaries associated with natural spring sources by more effectively dispersing cattle throughout the allotment. The proposed disturbance footprint would not directly impact known cultural resources, as none were identified within a 4.4-acre area during intensive pedestrian survey efforts conducted on November 4, 2021. As no sites were identified within the proposed project area or immediate vicinity, no indirect effects to cultural resources from livestock use of well infrastructure are expected to occur.

No reasonably close causal projects or activities have been identified that could combine with these impacts to create additional or larger impacts than those already identified for this resource. The purpose of the mud well would remain unchanged.

3.1.3 Environmental Impacts—No Action

Under the No Action Alternative, current conditions within the Massacre Mountain Allotment would not change. Current livestock impacts to known sites within the allotment appear moderate to severe overall; they exhibit signs of heavy disturbance at sites associated with natural spring sources, such as areas denuded of vegetation, extensive trailing, or considerable livestock wallowing. Livestock grazing impacts to cultural resources include the potential to increase the amount of erosion on a site due to denuded vegetation (either from grazing or livestock heavily concentrating in one particular area). Erosion can cause irreparable damage to a site by displacing artifacts or destroying features, thus damaging the integrity of the cultural resource (Broadhead, 1999; Foster-Curley, 2003; Nielsen, 1991; Osborn et al., 1987).

3.2 Rangeland & Livestock Grazing

3.2.1 Affected Environment

The Massacre Mountain allotment is a perennial grazing allotment located in Washoe County, NV approximately 30 miles east of Cedarville, CA. The allotment consists of 149,059 acres which are separated into eleven partially fenced pastures and grazing use areas. A large portion of the allotment, designated as wilderness, is closed to livestock grazing. The project area is located within the Mud Springs pasture, which is used in conjunction with the Massacre Mountain use areas. There are currently two permittees authorized to graze 968 cattle from April 1 to September 30, utilizing 5824 AUMs.

The distribution of livestock is extremely limited by water availability due to the lack of water developments and inconsistent water distribution throughout the allotment. Under current management, livestock continually congregate, trample, and utilize riparian areas and springs on the allotment. Many forageable upland areas, including the project site, receive little to no use annually.

3.2.2 Environmental Impacts—Proposed Action

Construction of the proposed project would cause less than 0.5 acres of surface disturbance. Since the project would be located in an area of existing disturbance with limited understory, minimal impacts to livestock forage would occur within the project footprint.

The proposed project would assist in improving water dispersal on the allotment by providing a reliable water source for livestock and wildlife, especially during drought years. This additional water source would improve livestock grazing distribution and corresponding forage utilization in the project area and across the allotment. Implementation of this water source would allow the permittees to facilitate more progressive cattle management with the ability to improve their rotation system to better manage the allotment. Mud Well would reduce grazing pressure and help to improve conditions in high use riparian areas of concern on the allotment and divert the use to areas that are more productive and currently receive little to no use.

Maintenance of the proposed range improvement would be assigned to the permittees through a Cooperative Range Improvement Agreement. The permittees would be responsible for annual inspections and maintenance of Mud Well, which would require additional labor each year for the permittees.

No reasonably close causal projects or activities have been identified that could combine with these impacts to create additional or larger impacts than those already identified for this resource.

3.2.3 Environmental Impacts—No Action

With the no action alternative, water in the Mud Spring pasture would continue to be limited, restricting cattle distribution and use in this area. Continual limited water availability would result in the continued pressure on riparian areas throughout the allotment. This would continue to cause uneven cattle distribution across the landscape and make it difficult for livestock to utilize the uplands around the project site.

3.3 Soils

3.3.1 Affected Environment

A custom soil resource report was generated on Web Soil Survey, USDA Natural Resources Conservation Service (NRCS) for the project area on the Massacre Mountain Allotment on January 20, 2022. The proposed action occurs in the Esmod-Powlow soil association as 50% Esmod and 35% Powlow. This series consists of shallow, well drained soils formed in alluvium derived from volcanic rock. They occur on fan

remnants with slopes ranging from 2 to 15 percent. The mean annual precipitation ranges are between 10 to 12 inches and the mean annual temperature is 45 degrees F.

Esmod-Powlow Association (1431) Soil Profile Description

Elevation: 5800-6300 feet Frost Free Period: 80-100 days

Parent Material: Alluvium derived from volcanic rock (Esmod) and basalt (Powlow)

Depth to Restrictive Feature: 14-20 inches to duripan

Drainage Class: Well drained, with very high chance of runoff

Associated Ecological Sites: Esmod – RO23XY059NV – Gravelly Claypan 10-12 PZ

Powlow – RO23XY020NV – Loamy 10-12 PZ

Typical Profile: H1 - 0 to 6 inches: very gravelly loam H2 - 6 to 15 inches: gravelly clay H3 - 15-60 inches: cemented material

3.3.2 Environmental Impacts—Proposed Action

Construction of the proposed action would cause approximately 0.5 acres of soil disturbance. Short term impacts to soil are limited to the project footprint and are expected to be negligible in scope as they are limited temporally and spatially to well development and repair. Soil compaction may occur directly surrounding the troughs due to heavy cattle utilization and congregation.

This water development is expected to improve cattle distribution, which would allow for positive long-term effects across the allotment due to decreased intensity of cattle trailing and utilization. This would lead to more evenly distributed utilization across the allotment, mitigating the risk of heavy soil compaction in certain areas.

No reasonably close causal projects or activities have been identified that could combine with these impacts to create additional or larger impacts than those already identified for this resource. The purpose of the Mud Well would remain unchanged.

3.3.3 Environmental Impacts—No Action

Cattle distribution would remain unchanged from current use areas and would continue to pressure riparian areas within the allotment. Over time, continued heavy livestock grazing would cause increased erosion and compaction in drainages, riparian areas, and surrounding uplands. Excessive cattle trailing, congregation, and utilization would continue to occur on critical areas within the allotment.

3.4 Vegetation & Noxious Weeds

3.4.1 Affected Environment

The Gravelly Claypan 10-12 PZ (RO23XY059NV) and Loamy 10-12PZ (RO23XY020NV) ecological sites occur within the project area. The vegetation composition at the project site is sagebrush steppe, dominated by sagebrush cover and primarily perennial bunchgrass and forb understory. There are areas where the understory has increased bare ground and cheatgrasss. Some of the common vegetation species include big and low sagebrush, horsebrush, rabbitbrush, Thurber's needlegrass, Idaho fescue, Indian ricegrass, Bottlebrush squirreltail, Needle and thread, Great Basin Wildrye, phlox, buckwheat, and lupine. There are recorded populations of doublet (*Dimeresia* howellii), Beatley clover (*Trifolium andersonii ssp. beatleyae*),

Tiehm milkvetch (*Astragalus tiehmii*), and Schoolcraft catseye (*Cryptantha schoolcraftii*) located within five to eight miles of the proposed project site. However, no special status species occur within the project site, which is not conducive to support these species. The project area falls within the Modoc County Noxious Weeds Project Area and is managed under the Applegate BLM Integrated Weed Management Program. In the most recent inventory, no noxious weeds were mapped at or around the project area.

3.4.2 Environmental Impacts—Proposed Action

The construction of the proposed well would result in temporary loss of vegetation within the 0.5 acre project footprint. However, since there is an established seedbank, these disturbed sites would be expected to naturally revegetate within two to three growing seasons, given timely and adequate precipitation. There could be long term vegetation loss and decreased productivity in the immediate implementation period around the troughs due to increased cattle use. Overall, the project site and surrounding uplands appear to be functioning well with good potential and forage productivity. Low to moderate grazing pressures have been shown to increase flora heterogeneity over un-grazed conditions in most communities (Fuhlendorf & Engle, 2001). With the addition of this water source, livestock distribution should be much better in these currently ungrazed upland regions of the allotment. Increased grazing and associated removal of overgrown residual biomass would allow native forbs and perennial grasses to increase productivity and continue to compete against annual grass invasion. Much of the current native vegetative deterioration in critical riparian areas throughout the allotment (which is caused by excessive livestock congregation in these areas), would be alleviated by better distribution into the upland regions of this allotment.

No reasonably close causal projects or activities have been identified that could combine with these impacts to create additional or larger impacts than those already identified for this resource. The purpose of the mud well would remain unchanged.

3.4.3 Environmental Impacts—No Action

Vegetation at the project area would remain unchanged. Excessive trailing and congregation at critical riparian areas would continue to contribute to the deterioration of those sites. Cattle distribution and uneven forage utilization would remain unchanged, targeting the same areas of vegetation across the landscape.

3.5 Wildlife

3.5.1 Affected Environment

The affected environment for wildlife within the project area consists primarily of a sagebrush-steppe ecological community. The existing vegetation within the project area provides nesting and/or foraging habitat for numerous species of migratory and resident non-migratory birds, such as golden eagle (*Aquila chrysaetos*) and greater sagegrouse (*Centrocercus urophasianus*), both of which are designated as BLM Special Status Species.

Sections 3.25 and 4.24 of the Alturas Resource Management Plan (USDOI BLM 2008) and Sections 3.23 and 4.22 of the Surprise Resource Management Plan (USDOI BLM 2008) provide additional information on wildlife resources within the Applegate Field Office resource area. These sections are incorporated by reference and describe Affected Environment and Environmental Consequences for wildlife within the resource area.

3.5.2 Environmental Impacts—Proposed Action

Direct effects of the Proposed Action on wildlife in the project area would be a temporary disturbance and displacement due to the presence and noise of humans, vehicles and equipment required to implement the Proposed

Action. Indirect effects of the Proposed Action on wildlife in the project area would likely be reduced impacts on seasonally moist grassy areas within the allotment from livestock utilization in these sensitive riparian habitats through development of a solar pump, trough, and storage tanks. These range improvements could ultimately benefit wildlife habitat by improving vegetation community structure (i.e., species composition and vigor of perennial bunch grasses, forbs and shrubs) throughout the allotment.

Greater sage-grouse

The proposed project area is located within the Vya Population Management Area identified for the greater sage-grouse and lies within the area that has been modeled by the USGS as being Priority Habitat Management Area for greater sage-grouse (USGS database 2013). According to USGS modeling, the project area also lies within an area identified as nesting, brood-rearing, and winter seasonal habitat for greater sage-grouse. Additionally, the project area is within four miles of an active greater sage-grouse lek.

Greater sage-grouse may utilize the project area and may be found within the project area any time of the year. Negative impacts to greater sage-grouse habitat from the proposed livestock water developments include the direct removal of habitat components within the footprint of the development, and a reduction and/or loss of greater sage-grouse habitat components due to concentrated cattle use in the area surrounding the water source. However, these impacts to greater sage-grouse habitat from water developments would be offset in that the Proposed Action would provide water sources. Additionally, proposed water developments (e.g., stock tanks) would be outfitted with wildlife escape ramps to allow greater sage-grouse and other species safe access to water as consistent with the Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment (USDOI BLM 2015; ARMPA). If greater sage-grouse are present within the project area during project implementation, some short-term displacement of sage-grouse would likely occur due to equipment noise and human traffic associated with proposed stabilization and rehabilitation activities. Seasonal timing restrictions would be applied to prevent disturbances to greater sage-grouse during seasonal life-cycle periods (breeding, nesting, brood-rearing) consistent with the ARMPA. Based on the seasonal habitat within the project area and proximity to an active greater sage-grouse lek, the following seasonal restrictions would be applied:

Project activities would occur between September 15 – November 1 of any given year of project implementation (when there are no seasonal timing restrictions for greater sage-grouse).

The seasonal dates may be modified due to documented local variations (e.g., higher/lower elevations) or annual climatic fluctuations (e.g., early/late spring, long/heavy winter), in coordination with Nevada Department of Wildlife and California Department of Fish and Wildlife, to better protect greater sage-grouse and its habitat (USDOI BLM 2015).

Additionally, the following Required Design Feature (RDF) would be implemented for project activities consistent with the RDF Worksheet (Appendix C of the ARMPA):

- RDF Gen 11: Equip temporary and permanent aboveground facilities with structures or devices that discourage nesting and perching of raptors, corvids, and other predators.
- RDF Gen 21: Outfit all reservoirs, pits, tanks, troughs or similar features with appropriate type and number of wildlife escape ramps (BLM 1990; Taylor and Tuttle 2007).
- RDF WFM 1: Power-wash all firefighting vehicles, including engines, water tenders, personnel vehicles, and all-terrain vehicles, prior to deploying in or near greater sage-grouse habitat to minimize the introduction and spread of undesirable and invasive plant species.

Although the proposed new water developments could negatively impact greater sage-grouse by providing breeding sites for mosquitos carrying the West Nile virus which can infect greater sage-grouse, the threat to greater sage-grouse within the project area is considered very low. According to the US Fish and Wildlife Service (FWS), "...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" (USDOI FWS, 2010).

Golden eagles

Under the Proposed Action, some disturbance to golden eagles within the project area would occur from equipment noise and human traffic associated with stabilization and rehabilitation activities. However, these impacts are expected to be short-term and limited to the period when project activities are implemented and completed. To minimize potential disturbance to nesting golden eagles, seasonal timing restrictions on project activities would be applied consistent with General Guidelines for Seasonal Restrictions and Distance Buffers in Special Wildlife Habitats (see Table 2.22-1 of the Surprise Resource Management Plan; USDOI BLM 2008).

Migratory birds

Potential impacts to migratory birds could include disturbance or direct damage to nests and nesting structures as well as disturbances near the nest site during critical nesting seasons. Although nesting seasons vary by species, most nesting activity for migratory bird species generally occurs between February 1 and August 31. To minimize potential disturbance to nesting migratory birds and/or raptors, seasonal timing restrictions would be applied consistent with General Guidelines for Seasonal Restrictions and Distance Buffers in Special Wildlife Habitats (see Appendix F for Table 2.24-3 of the Alturas RMP).

3.5.3 Environmental Impacts—No Action

Wildlife within the project area would not experience the direct effects of disturbance and displacement from the presence and noise of humans, vehicles and equipment required to construct the water well, solar pump, troughs, and storage tank. Under this alternative, no new water developments would be constructed and there would not be an increase in the amount of surface water available to wildlife with the project area. Additionally, there would be continued impacts at the riparian sources due to utilization by livestock at the current rate without the installation of the well. The risk of West Nile Virus to greater sage-grouse and other avian species within the project area would likely remain unchanged.

4.0 Consultation, Coordination, and Public Participation Native American Consultation

The BLM Applegate Field Office invited the Cedarville Rancheria, Fort Bidwell Tribe, Reno-Sparks Indian Colony, Summit Lake Tribe, and Susanville Indian Rancheria to formally consult on this project via scoping letter sent on September 21, 2021. Follow-up emails were also sent to the above tribes on September 21, 2021. Additional project information was shared with Susanville Indian Ranchera staff during a regularly scheduled quarterly consultation meeting held November 18, 2021. No comments or concerns were expressed by any of these tribes during initial outreach efforts or since that time.

4.1 Public Participation

The AGFO publishes Land Use Planning and National Environmental Policy Act (NEPA) documents to the national register known as ePlanning. The register allows public review and comment online on BLM NEPA and planning projects. The project was discussed with the permittee on March 3, 2021 during the annual grazing meeting and again on May 11, 2021. On July 8, 2021 and August 5, 2021 the permittee and rangeland manager for the allotment visited the site location to discuss the project design. A follow-up phone call regarding specifications for the project and water rights occurred on January 19, 2022.

5.0 Supporting Information

5.1 List of Preparers

Name	Title	Resource Area
Jennifer Millar	Rangeland Management Specialist	Project Lead
Devin Snyder	Archaeologist	Cultural Resources & Native American Concerns
John Morris	Wildlife Biologist	Wildlife
Jennifer Millar	Rangeland Management	Rangeland & Livestock Grazing, Vegetation & Noxious
Jenninei Minai	Specialist	Weeds, Soils
Kevin Kunkel	Planning and Environmental Coordinator	Planning

5.2 References

- Bengston, G. 2003. Northern Paiute and Western Shoshone Land Use in Northern Nevada: A Class I Ethnographic/Ethnohistoric Overview. SWCA Environmental Consultants. Prepared for the Bureau of Land Management Nevada State Office. Bureau of Land Management, Nevada State Office, 1340 Financial Boulevard, Reno, Nevada.
- Broadhead, W. 1999. Cattle, Control, and Conservation. Cultural Resource Management, 22: 31-32.
- Foster-Curley, C. 2003. Damage Assessment Report, Yankee Jim Ranch Property. Report prepared for Alturas Field Office, Bureau of Land Management. Bureau of Land Management, Alturas Field Office, 708 West 12th Street, Alturas, California.
- Fowler, C. S., and S. Liljeblad. 1986. Northern Paiute. In W. L. d'Azevedo (ed.), Great Basin, 435-465. Washington, D.C.: Smithsonian Institution.
- Fuhlendorf, Samuel D., & D. M. Engle; Restoring Heterogeneity on Rangelands: Ecosystem Management Based on Evolutionary Grazing Patterns: We propose a paradigm that enhances heterogeneity instead of homogeneity to promote biological diversity and wildlife habitat on rangelands grazed by livestock, *BioScience*, Volume 51, Issue 8, 1 August 2001, Pages 625–632, https://doi.org/10.1641/0006-3568(2001)051[0625:RHOREM]2.0.CO;2
- Kelly, I. T. 1932. Ethnography of the Surprise Valley Paiute. University of California Publications in American Archaeology and Ethnology 31(3):67-210. University of California Press, Berkeley.
- King, J., K. McGuire, M. Maniery, C. Baker, H. McCarthy, and H. Scotten. 2004. *Class I Cultural Resources Overview and Research Design for the Alturas, Eagle Lake, and Surprise Resource Areas*. Far Western Anthropological Research Group. Prepared for the Bureau of Land Management Surprise, Eagle Lake, and Alturas Field Offices.
- Nielsen, A. 1991. Trampling the Archaeological Record: An Experimental Study. In American Antiquity, Vol. 56, No. 3, pp. 483-503.

- Osborn, A., Vetter, S., Hartley R., Walsh, L., and Brown J. 1987. Impacts of Domestic Livestock Grazing on the Archaeological Resources of Capitol Reef National Park, Utah, pp. 1-136: Midwest Archaeological Center Occasional Studies in Anthropology.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: https://websoilsurvey.sc.egov.usda.gov/. Soil Survey Area: Washoe County, Nevada, North Part. Survey Area Data: Version 16, Sept 9, 2021.
- Stewart, O.C. 1939. The Northern Paiute Bands. University of California Anthropological Records 2(3):127-149. University of California Press, Berkeley.
- USDOI, Bureau of Land Management. 2007. Proposed Resource Management Plan and Final Environmental Impact Statement. Surprise Field Office, Cedarville, CA.
- USDOI, Bureau of Land Management. 2004. Black Rock Desert–High Rock Canyon Emigrant Trails National Conservation Area (NCA) and Associated Wilderness, and Other Contiguous Lands in Nevada Record of Decision and Resource Management Plan.