BLM

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

Argenta Settlement Agreement Range Improvement Final Environmental Assessment May 31, 2016

DOI-BLM-NV-B010-2016-0008-EA

PREPARING OFFICE

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List of Acronyms and Abbreviations

APE	Area of Potential Effect
ARMPA	Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment
ARPA	Archaeological Resources Protection Act
BAPC	Bureau of Air Pollution Control
BLM	Bureau of Land Management
BMD	Battle Mountain District
BMPs	Best Management Practices
CESA	Cumulative Effects Study Area
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CFS	cubic feet per second
CWA	Clean Water Act
DOI	Department of the Interior
EIS	Environmental Impact Statement
EA	Environmental Assessment
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act of 1973, as amended
FCAD	Fire Creek Archaeological District
FLPMA	Federal Land Policy and Management Act of 1976
GHMA	General Habitat Management Areas
GIS	Geographic Information System
GRSG	Greater Sage-Grouse
HFRA	Healthy Forest Restoration Act
IPAC	Information, Planning, and Consultation System
MBTA	Migratory Bird Treaty Act
MDM	Mount Diablo Meridian
MLFO	Mount Lewis Field Office
MOU	Memorandum of Understanding
NAAQS	National Ambient Air Quality Standards
NAC	Nevada Administrative Code
NAGPRA	Native American Graves Protection and Repatriation Act
NDEP	Nevada Division of Environmental Protection
NDOA	Nevada Department of Agriculture
NDOW	Nevada Department of Wildlife
NDWR	Nevada Division of Water Resources
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NNHP	Nevada Natural Heritage Program
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NRS	Nevada Revised Statute
NRST	National Riparian Service Team
NWI	National Wetland Inventory

OHA	Office of Hearings and Appeals
OHMA	Other Habitat Management Areas
OHV	Off Highway Vehicle
PFC	Properly Functioning Condition
PHMA	Priority Habitat Management Areas
RFFAs	Reasonably Foreseeable Future Actions
RMP	Resource Management Plan
ROD	Record of Decision
ROWs	Rights of Ways
SFA	Sage Brush Focal Areas
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SDWA	Safe Drinking Water Act
TCPs	Traditional Cultural Properties
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VRM	Visual Resources Management

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Chapter One: Purpose and Need for Action

1.1 Background

On January 22. 2016, the Bureau of Land Management (BLM) Mount Lewis Field Office (MLFO) prepared a preliminary Environmental Assessment (EA) for a proposal to construct three riparian exclosures in the Argenta Allotment that was made available for a 30-day public comment period. Following BLM's review of the public comments, and the exclosure proponent's application withdrawal for one of the three exclosures, BLM has prepared this Environmental Assessment (EA) to address potential environmental consequences associated with the construction of two riparian exclosures at specific locations within the Argenta Allotment.

Based on extreme drought conditions and concerns about overgrazing during drought , the BLM issued a final decision in August, 2014, temporarily closing portions of the Argenta Allotment. Multiple parties appealed the temporary closure decision. Those appeals were resolved after the BLM and appellant permittees entered into a settlement agreement on June 16, 2015, that, among other provisions, imposed utilization limits and management changes to protect range resources in the Argenta Allotment. Included in the Agreement was a BLM commitment to conduct a decision-making process for permittees' applications for a limited number of lentic and lotic exclosures and an allotment boundary fence between the Argenta and Carico Lake Allotments. The agreement also prioritizes and establishes a timeline for the Argenta Allotment permit renewal, which is scheduled to be completed prior to the 2018 grazing season. On September 2, 2015, BLM issued a decision authorizing the construction of five temporary water haul sites, one temporary pipeline and six small riparian exclosures to protect from grazing spring sources identified as a high priority for protection based on the potential to increase water storage capacity and jump start riparian recovery if grazing is excluded from those areas. Those exclosures will protect lentic spring sources.

Directly relevant to this EA, the Settlement Agreement (Agreement) includes a provision that "BLM commits to issuing a decision in accordance with 43 C.F.R. subpart 4160 within 8 months of receipt of permittees' completed application for 1-3 high priority larger lotic fence proposals if identified as such by National Riparian Service Team (NRST)." Based on field visits and resource concerns in specific areas, on August 11, 2015, the NRST identified three lotic areas (Fire Creek, Ferris Creek, and North Fork of Mill Creek) as high priority for exclosure fencing. The NRST's recommendation, based on field visits, was due to the current poor condition and the high potential for recovery of the stream channels and riparian resources along the streambanks (as compared to the lentic exclosures which protect the spring source itself) if riparian exclosures are constructed to eliminate livestock grazing from those areas. Consistent with the settlement agreement, BLM initiated a decision-making process to issue a decision on the permittees' previously submitted applications for those three riparian fences.

Although BLM's decision-making process encompassed the three high priority lotic exclosures identified by NRST, Following the comment period Klondex

Mines indicated a desire to mitigate mine disturbance within Sage-Grouse habitat as a result of the approved expansion of the Fire Creek Mine, by completing various projects that would result in restoration of the degraded Fire Creek wetlands area and thereby result in a net conservation gain of priority sage-grouse riparian habitat. Klondex Mines' preliminary proposal is to repair the head-cuts in Fire Creek, use jack rail fencing to exclude livestock from the lentic and lotic riparian areas, re-route the road to keep vehicle traffic away from the stream, and install water developments to keep livestock away from the stream and the mine site. This proposal partially overlaps the Fire Creek exclosure fencing that was analyzed in the preliminary EA, but would expand the actions to be taken to provide a greater level of sage-grouse habitat conservation and recovery. Because the Kondex Mines proposal will be submitted for review and analysis by BLM, and because it would provide the same benefits as the Fire Creek Exclosure (but on a more comprehensive scale that is more specifically designed to benefit Greater Sage-Grouse due to the Greater Sage-Grouse mitigation purpose), the Fire Creek Exclosure analyzed in the preliminary EA has been removed from the Proposed Action for the Final EA.

Section 7.1 of the Agreement states, "The Parties agree that protection of critical riparian-wetland sites that serve as important wildlife habitat and water storage areas is critical to long term success and land health within the Argenta allotment." The sites analyzed in this EA are riparian-wetland sites that have been identified as important to the long-term health of the affected riparian resources within the Argenta Allotment.

1.2 Purpose and Need for the Proposed Action

Purpose: The purpose of this project is to protect a small number of high value areas of riparian habitat from livestock grazing impacts in order to promote recovery from livestock trailing and heavy grazing use of herbaceous vegetation in those riparian areas. These stream segments have been identified for exclosure fencing due to the high potential to jump start and promote the recovery of the vegetation and functionality of these riparian systems.

Need: The need for the proposed action is to respond to an application submitted by permittees for the construction of riparian exclosures on public lands in the Argenta Allotment managed by BLM in compliance with the Federal Land Policy and Management Act, the Taylor Grazing Act, BLM's grazing regulations (43 C.F.R. Subpart 4120.3), and other applicable Federal laws and regulations. Under the terms of the Settlement Agreement for the Argenta Allotment that was approved by the Office of Hearings and Appeals on June 24, 2015, BLM committed to making a decision on the permittees' application for these exclosures within 8 months of receiving such application.

1.3 Land Use Plan Conformance

The proposed action and alternatives described below are in conformance with the following plans:

Shoshone-Eureka Resource Management Plan

● To establish a grazing management program designed to provide key forage plants with adequate rest from grazing during critical growth periods.

● To achieve, through management of livestock and wild horses, utilization levels consistent with those recommended by the Nevada Rangeland Monitoring Handbook to allow more plants to complete growth cycles and to increase storage of reserves for future growth.

● Improve or maintain in good or better condition, 64 miles of aquatic habitat and 768 acres of riparian habitat associated with the streams and an additional 1,067 acres of other meadows, springs and aspen groves.

●To improve and maintain habitat for state listed sensitive species and federally listed threatened or endangered species.

Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA): The proposed exclosures are in Priority Habitat Management Area (PHMA) (figure 3.13) as well as summer, winter, nesting, and brood rearing habitat. The Utah Mine Camp 2 lek is approximately 1.7 miles from the proposed Ferris Creek Exclosure. The Utah Mine Camp 3 lek is approximately 2.3 miles from the proposed Ferris Creek Exclosure. The Indian Box Spring lek is approximately 3.7 miles from the proposed North Fork of Mill Creek Exclosure.

- MD SSS 1: In PHMAs and GHMAs, work with the proponent/applicant, whether in accordance with a valid existing right or not, and use the following screening criteria to avoid effects of the proposed human activity on GRSG habitat

  A. First priority—locate project/activity outside PHMAs and GHMAs

  B. Second priority—if the project/activity cannot be placed outside PHMAs and GHMAs, locate the surface-disturbing activities in non-habitat areas first, then in the least suitable habitat for GRSG

     1. In non-habitat, ensure the project/activity will not create a barrier to movement or connectivity between seasonal habitats and populations

  B. Third priority—collocate the project/activity next to or in the footprint of existing infrastructure

- MD SSS 2: In PHMAs, the following conditions will be met in order to avoid, minimize, and mitigate any effects on GRSG and its habitat from the project/activity:

  D. In management actions, and consistent with valid and existing rights and applicable law in authorizing third-party actions, the BLM will apply the lek buffer-distances identified in the USGS report, Conservation Buffer Distance Estimates for Greater Sage-Grouse—A Review Open File-Report 2014-1239 (Manier et al. 2014), in accordance with Appendix B.

  E. Seasonal restrictions will be applied during the period specified below to manage discretionary surface-disturbing activities and uses on public lands to prevent disturbances to GRSG during seasonal life-cycle periods:

  1. In breeding habitat within 4 miles of active and pending GRSG leks from March 1 through June 30
     a. Lek-March 1 to May 15
     b. Lek hourly restrictions-6 p.m. to *9* a.m.
     c. Nesting- April 1 to June 30

  2. Brood-rearing habitat from May 15 to September 15
     a. Early—May 15 to June 15
     b. Late—June 15 to September 15

  3. Winter habitat from November 1 to February 28

  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 NDOW and California Department of Fish and Wildlife (CDFW), in order to better protect GRSG and its habitat.

  F. Authorizations and permits will limit noise from discretionary activities (during construction, operation, and maintenance) to not exceed 10 decibels above ambient sound levels at least 0.25 mile from active and pending leks, from 2 hours before to 2 hours after sunrise and sunset during the breeding season. See Appendix M, Greater Sage-Grouse Noise Protocol.

- MD SSS 3: In GHMAs, the following conditions will be met in order to avoid, minimize, and mitigate any effects on GRSG or its habitat from the project/activity:

  B. Authorized/permitted activities are implemented adhering to the RDFs described in Appendix C, consistent with applicable law. At

the site-specific scale, if an RDF is not implemented, at least one of the following must be demonstrated in the NEPA analysis associated with the project/activity:

1. A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to the site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable.

2. An alternative RDF is determined to provide equal or better protection for GRSG or its habitat.

3. A specific RDF will provide no additional protection to GRSG or its habitat.

- MD SSS 3 Compliance: In the NEPA associated with permitting the maintenance of the projects, any RDFs that are not required will be addressed as to why they are not implemented.

- MD SSS 11: Design and construct fences consistent with BLM H-1741-1, Fencing Standards Manual (BLM 1990), and apply the Sage-Grouse Fence Collision Risk Tool to Reduce Bird Strikes (NRCS 2012). Bring existing fencing into compliance as opportunities arise.

- MD SSS 11 Compliance: The proposed fences will be constructed consistent with BLM H-1741-1, and fence markers will be incorporated.

- Objective VEG 1: In all SFA and PHMAs, the desired condition is to maintain all lands ecologically capable of producing sagebrush (but no less than 70%) with a minimum of 15% sagebrush cover or as consistent with specific ecological site conditions. The attributes necessary to sustain these habitats are described in Interpreting Indicators of Rangeland Health (BLM Tech Ref 1734-6).

- MD LG 12: Grazing management strategies for riparian areas and wet meadows will, at a minimum, maintain or achieve proper functioning condition (PFC) and promote GRSG brood-rearing habitat objectives (Table 2-2) within PHMAs and GHMAs.

- MD LG 13: For range improvement projects, review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.

- MD LG 13 Compliance: MD SSS 1-4 will be incorporated as noted above.

- MD LG 14: Build or modify livestock exclosures so that they are large enough to provide hiding cover to GRSG and other wildlife and to reduce the possibility of wildlife collisions with fences (Christiansen 2009; Stevens 2011; NRCS 2012).

- MD LG 14 Compliance: The proposed fences will be constructed consistent with BLM H-1741-1, and fence markers will be incorporated. The fences will be jack rail and barbed wire and will be large enough to ensure minimal impacts to wildlife species, including GRSG.

- MD LG 23: Fences shall not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design).

- MD LG 23 Compliance: The proposed fences will be constructed consistent with BLM H-1741-1, and fence markers will be incorporated. The fences will be majorly comprised of jack rail, and any barbed wire component will contain fence markers to mitigate collision risk.

- 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 12: Control the spread and effects of nonnative, invasive plant species (e.g., by washing vehicles and equipment, minimize unnecessary surface disturbance; Evangelista et al. 2011). All projects would be required to have a noxious weed management plan in place prior to construction and operations.

- RDF Gen 12 Compliance: In the NEPA associated with permitting the maintenance of the projects, any necessary washing of machinery/tools will be addressed/required.

- RDF Gen 17: Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.

- RDF GEN 19: Instruct all construction employees to avoid harassment and disturbance of wildlife, especially during the GRSG breeding (e.g., courtship and nesting) season. In addition, pets shall not be permitted on site during construction (BLM 2005b).

- RDF GEN 20: To reduce predator perching in GRSG habitat, limit the construction of vertical facilities and fences to the minimum number and amount needed and install anti-perch devices where applicable.

- RDF GEN 22: Load and unload all equipment on existing roads to minimize disturbance to vegetation and soil.

1.4 Relationships to Statutes, Regulations, Policy or other Environmental Analysis

The proposed action and Alternatives would be in conformance with the following Federal, BLM regulations:

● Taylor Grazing Act of 1934

● National Environmental Policy Act of 1969 (NEPA)

● National Historic Preservation Act of 1966, as Amended (NHPA)

● Endangered Species Act of 1973

● Federal Land Policy and Management Act of 1976 (FLPMA)

● Public Rangelands Improvement Act of 1978

● 43 CFR §4160 and §4180

● Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA), 2015

Figure 1.4.1 Overview of Ferris Creek

Figure 1.4.2 Overview of North Fork of Mill Creek

1.5 Scoping and Public Involvement:

An internal BLM scoping meeting was held on October 29, 2015. The interdisciplinary team identified several potential resource issues including;

- The possible presence of cultural resources around riparian areas where the fences would be constructed;
- The effects of fences on GRSG (collision potential and perches for predators);
- Fencing across an existing unauthorized road and the effect on OHV recreation;
- The effects of fencing off riparian and water on livestock grazing management; and
- The potential spread of weeds and non-native species by vehicles during the installation phase;

Letters were sent to the Battle Mountain Band of the TeMoak Shoshone tribe, and the TeMoak Shoshone Tribe on November 25, 2015. The tribes have not responded with any comments or concerns.

Public Scoping was initiated through letters mailed on December 18, 2015. BLM requested that scoping comments be submitted by 4:30 on January 5, 2016. Four comment letters were submitted and included the following NEPA related concerns:

- Effects of the proposed project on GRSG PHMA & GHMA, burrowing owl, big game and other rare/sensitive species habitats;
- Delaying the analysis of the projects until the permit renewal process which would include resting the Argenta Allotment in 2016 and incorporating the projects into one NEPA analysis; and
- Whether the project is consistent with the Approved Resource Management Plan Amendment for the Northeastern California-Nevada Sage-Grouse planning area.

This document was sent to the Nevada State Clearinghouse and the public for a 30-day comment period ending on February 22, 2016. Five comment letters were received. No significant new issues or concerns were raised in the public comments that require supplemental analysis; however, BLM has made some editorial and clarifying revisions to the Final EA, and has modified the Final EA to reflect that the proposed action is for only two, rather than three, riparian exclosures. The comments and BLM's responses to those comments are provided in Appendix A of the Final EA.

Chapter Two: Proposed Action and Alternatives

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2.1 Description of the Proposed Action

The proposed action is to construct two riparian exclosures along two separate stream segments in the Argenta Allotment: Ferris Creek and North Fork of Mill Creek. The stream segments that would be excluded from livestock grazing as a result of the construction of the riparian exclosures are currently degraded from the impacts of current and historic livestock use and from other uses such as off-road vehicle travel.

The stream segments that have been proposed to be exclosed have the potential for relatively fast recovery if protected from grazing use. The grazing management system (which will remain in place until such time as the grazing permit renewal process is completed) does not provide these riparian areas sufficient opportunity to recover from historic or more recent grazing damage. . The exclosures would protect the riparian habitat by excluding livestock access to those stream segments, thereby reducing soil compaction and erosion, and increasing stream bank stabilization and water storage, as well as allowing for riparian vegetation to reach its potential. Riparian areas are typically resilient and can recover rapidly once grazing pressures are removed. As a result, measurable and meaningful riparian recovery of the exclosed areas would be anticipated in the period during which BLM completes its processing of the permit renewals for the Argenta Allotment. It is expected that recovery would begin as soon as the exclosures are in place.

Each of the two stream segments proposed to be exclosed would be fenced with jack rail fencing to keep out livestock, while still providing wildlife access. Jack rail fencing (see diagram below) consists of free standing corners and jack legs of welded jacks and rails that sit on top of the ground. This fencing is installed without surface disturbance as no posts are required to be placed into the ground. Attachable hinges allow for the fence to make corners and follow changes in contour on the ground. Each fence section is twelve feet wide with three horizontal rails in each section. The bottom rail is high enough so small game and animals such as antelope can have free ingress and egress. The top rail is high enough to prevent livestock from crossing the exclosure but low enough that wildlife (such as deer) have free ingress and egress over the top. This type of fence is durable enough to be permanent, but it can also be removed in sections, if needed, with minimal ground disturbance. Once removed, jack rail sections can be reused for other fencing projects.

In those few areas along the two stream channels where jack rail fencing is not feasible due to topography (i.e., steep slopes where jack rail fencing would not be stable) or other physical limitations (e.g., such as uneven terrain or rock outcroppings where the jack rail fence would not be stable), barbed wire fencing would be used. Barbed wire fencing would be constructed to meet BLM wildlife compatibility specifications including sage grouse deterrent markers.

Fence construction and maintenance would be assigned to the permittees on the Argenta Allotment through a cooperative agreement and assignment of range

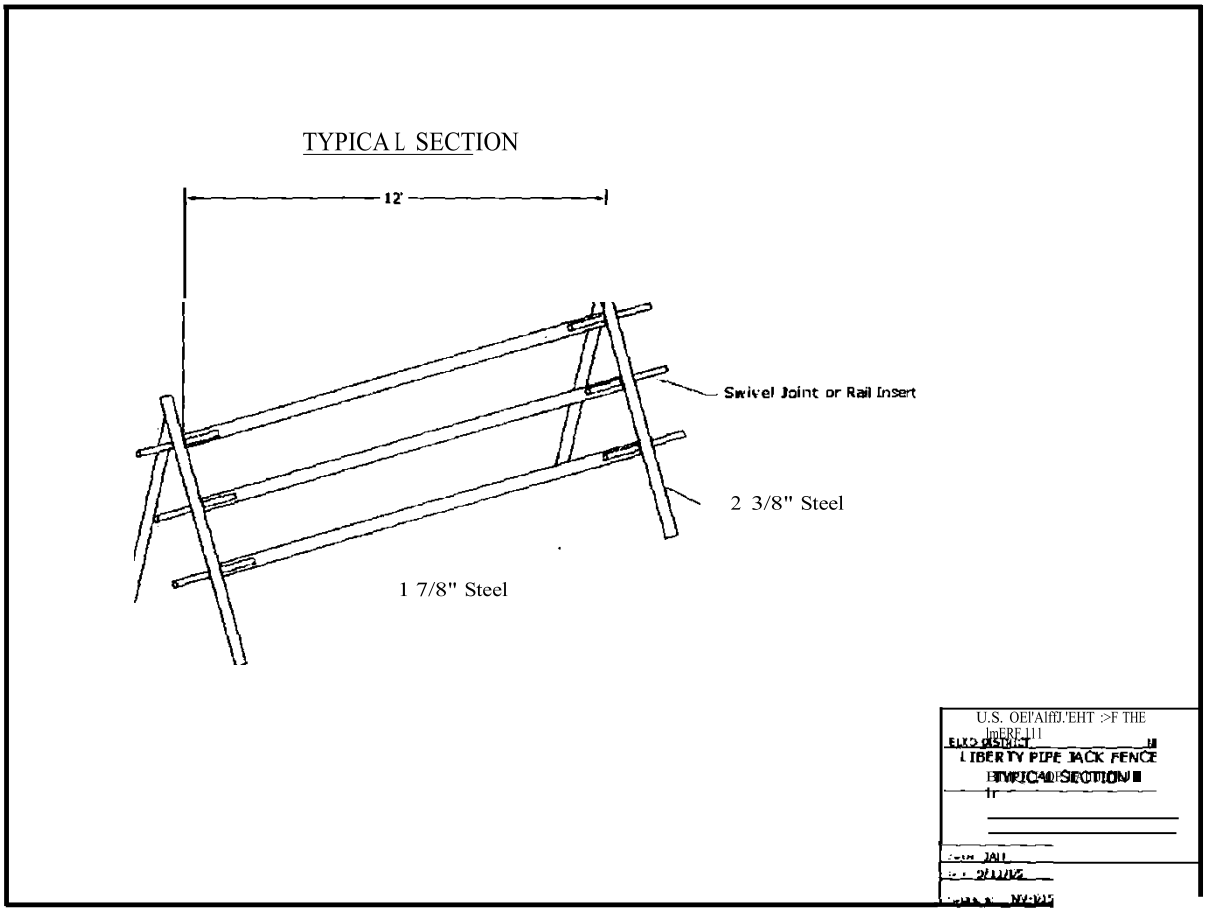


Figure 2.1 Liberty Pipe Jack Fence

improvements. BLM would periodically inspect the exclosures to ensure proper maintenance is occurring. Maintenance would include replacement and repair of damaged portions of the fence. Due to the construction integrity of the jack rail fencing, it is much more durable than barbed wire fencing, so less maintenance is expected.

The proposed Ferris Creek Exclosure would be located in T. 28 N R. 46 E Sec. 4 & 9 MDBM in the South Maysville Use Area within the Argenta Allotment. The Ferris Creek Exclosure would tie into the Carico Lake/Argenta Allotment boundary fence and would exclude livestock from the lotic portion of Ferris Creek on public lands in the use area. The remaining unfenced segments in the upper portion of Ferris Creek on public land are steep, rocky and intermittent. The lower portion of Ferris Creek in the Indian Creek use area is separated by an existing drift fence. The area encompassed by the proposed Ferris Creek Exclosure would be approximately 23.4 acres which includes the construction buffer around the fence line, tying in to the Carico Lake/Argenta Allotment boundary fence. The proposed fence would be 0.8 miles long and would exclose 21.3 acres of riparian habitat and adjacent uplands (see Map 2.3.2) including 0.31 miles of riparian habitat. The exclosure area would be 0.1% of the 15,433 acre South Maysville Use Area. It is expected that the entire fence would be jack rail, however, based on topography, there may be a need to use up to 200 feet of barbed wire fence (which represents 5% of the total fence length).

The proposed North Fork of Mill Creek Exclosure would be located in T. 29 N R. 45 E Sec. 36 MDBM in the North Fork of Mill Creek Use Area. The project area would be approximately 11.2 acres. The fence would be 1.1 miles long and would enclose 8.4 acres of riparian habitat and adjacent uplands (see Map 2.3.3) including 0.45 miles of riparian habitat. The exclosure area would be about 0.2% of the 4,915 acre Mill Creek Use Area. It is expected that the entire fence would be jack rail. If barbed wire fence is needed, it would be for less than 1,500 feet where the fence would be traversing a slope; although It is not anticipated that the entire slope area would require the use of barbed wire fencing. A BLM Decision issued September 2, 2015 authorized the construction of a small exclosure around the lentic spring source that is the headwater of North Fork of Mill Creek. This proposed exclosure extends that smaller exclosure to include the lotic portion of North Fork of Mill Creek on that section of BLM administered land. While the smaller, lentic exclosure protects the headwaters (the source), this exclosure would enhance those benefits by protecting the adjacent stream segments to allow for additional recovery and healthy riparian areas that can serve as important wildlife habitat. A road crossing would be constructed where the existing road crosses the stream. Additionally, two cattle guards would be installed allowing the road to continue in its existing course. This would allow an additional, smaller spring adjacent to the stream segment to be protected by the exclosure (see Map 2.2.3).

The project area includes a buffer area of 20 feet around the proposed exclosure to account for potential disturbance during construction. A 2,500 sq/ft temporary construction lay down area would be located in previously disturbed areas for construction equipment and stock piling of fencing materials at each of the locations. Access to the springs during construction would be through existing access roads; however, minimal (<0.1 mile) overland vehicle travel may be required to access each site. The total disturbance area for the proposed action, including the stream sections, fenced areas), and temporary lay down area is approximately 34.6 acres.

2.2 Design Features Common to All Action Alternatives

Cultural Resources

Fences would be constructed at least 10 meters from the boundaries of any historic properties identified in the project area, as stipulated by Section V. E. 7 in the *State Protocol Agreement between The Bureau of Land Management, Nevada and The Nevada State Historic Preservation Officer for Implementing the National Historic Preservation Act*. One exception is a segment at the Ferris Creek location, as described in Chapter 3.A BLM qualified archaeological monitor would be present during construction to ensure appropriate placement of the fence so the eligibility of identified sites would not be affected.

Livestock Grazing

Each exclosure would have a gate to allow for removal of livestock that may be trapped inside the exclosures.

Fences would be constructed in accordance with BLM Handbook 1741-1 Chapter 4 Fence Design and Construction Standards.

To the extent possible, fence lines would be placed where existing disturbance and topography would limit impacts of livestock trailing. Access during construction would be from existing roads and off-road travel by vehicles would be limited to no more than 0.1 mile at each site.

Cattle guards would be installed to allow continued use of existing open roads. All activities would be halted immediately in the event of a discovery of a cultural resource.

Noxious Weeds, Invasive and Non-Native Species
To help control the spread of weed infestations along roadsides and other areas, any equipment or vehicles exposed to weed infestations or arriving on site carrying soil or plant debris would be cleaned before moving into or within the project area.

Wastes, Hazardous or Solid
All refuse generated during the project would be removed and disposed of in an authorized off-site landfill facility, consistent with applicable regulations. No refuse would be disposed of or left on site. A portable chemical toilet would be used during the time the construction crew is on site.

Diesel fuel and gasoline would be stored in fuel delivery systems (i.e. manufacturer installed gas tanks) on construction equipment and support vehicles. All containers of hazardous substances would be labeled, handled, and stored in accordance with the Nevada Division of Environmental Protection (NDEP) regulations. If regulated materials such as gasoline or diesel fuel are spilled at the project site, the operator should take measures to control the extent of the spill and contact the NDEP (888-331-6337) and BLM (775-635-4000). Any hazardous substance spills would be cleaned up immediately and any resulting waste would be transferred offsite in accordance with all applicable local, state, and federal regulations. Contract construction crews would maintain spill kits on site in case of a spill.

Migratory Birds
In order to avoid potential impacts to breeding migratory birds, a nest survey would be conducted by a BLM biologist prior to building the riparian exclosures if during the avian breeding season (March 1 through July 31 for raptors, and April 1 through July 31 for other avian species). Pre-disturbance surveys for migratory birds are only valid for 14 days. If the disturbance for the specific location does not occur within 14 days of the survey, another survey would be needed. If active nests are located around the project area, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nest material, transporting food) is observed, a protective buffer (the size depends on the habitat requirements of

the species) would be delineated and the buffer area avoided to prevent destruction or disturbance to nests or birds until they are no longer actively breeding or rearing young. The site characteristics to be used to determine the size of the buffer area are as follows: 1) topographic screening; b) distance from disturbance to nest; c) the size and quality of foraging habitat surrounding the nest; d) sensitivity of the species to nest disturbances; and e) the protection status of the species.

Wildlife

The proposed fencing would be designed and constructed in accordance with BLM's H-1741-1 Fencing Standards Manual (BLM 1990). For the small sections that might use barbed wire fence, the fourth strand (i.e., the bottom strand) would be a smooth wire for safe ingress and egress for all wildlife species including mule deer and pronghorn antelope.

Greater Sage-Grouse

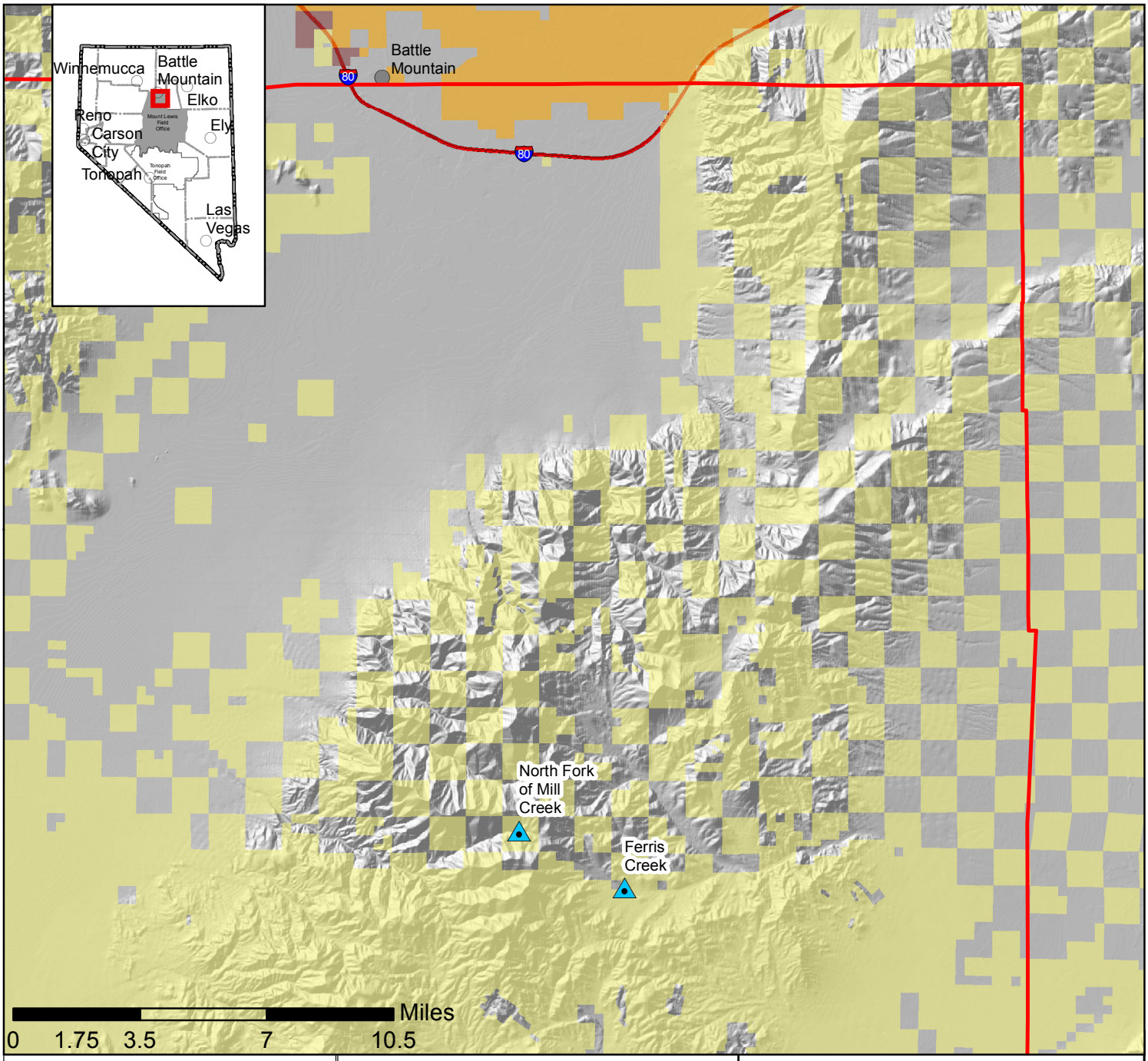
To avoid potential anthropogenic noise impacts to Greater Sage-Grouse (GRSG), surface-disturbing activities in GRSG PHMA and GHMA, certain seasonal restrictions would be followed from the GRSG ARMPA (MD-SSS 2 and MD-SSS-3) for constructing each of the exclosures. Both project areas are in nesting, breeding, summer brood rearing, and winter habitats. Refer to section 1.3.

Ferris Creek: construction would only be allowed from September 16th through October 31st

North Fork Mill Creek: construction would only be allowed from September 16th through October 31st

GRSG reflective fence markers would be added to any sections of barbed wire fence to reduce GRSG collisions.

The project design and construction would adhere to all Management Decisions and Required Design Features outlined in section 1.2.



Project Areas

Field Office Boundary

Mount Lewis Field Office

Battle Mountain

Major Road

Interstate

Bureau of Indian Affairs

Bureau of Land Management

Bureau of Reclamation

Private

May 17, 2016

United States Department of the Interior
Bureau of Land Management
Battle Mountain District Office
Mount Lewis Field Office
50 Bastian Road
Battle Mountain, NV 89820

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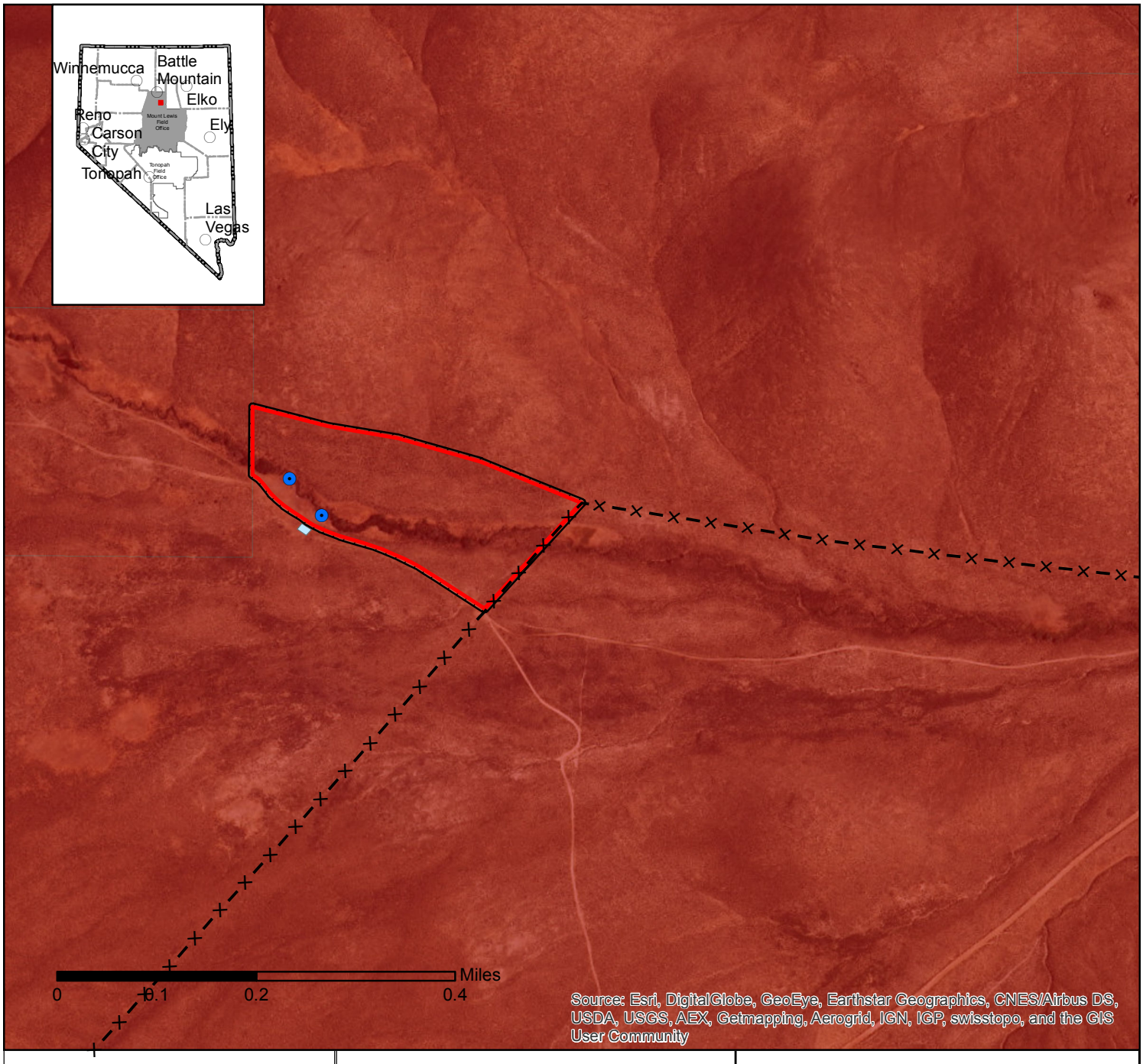
BUREAU OF LAND MANAGEMENT

Argenta Settlement Agreement
Environmental Assessment

General Location and Project Areas



Existing Fence

Proposed Fencelines

Potential Disturbance Area

Construction Lay Down Area

MIM Site

Priority Habitat Management Area

May 17, 2016

United States Department of the Interior
Bureau of Land Management
Battle Mountain District Office
Mount Lewis Field Office
50 Bastian Road
Battle Mountain, NV 89820

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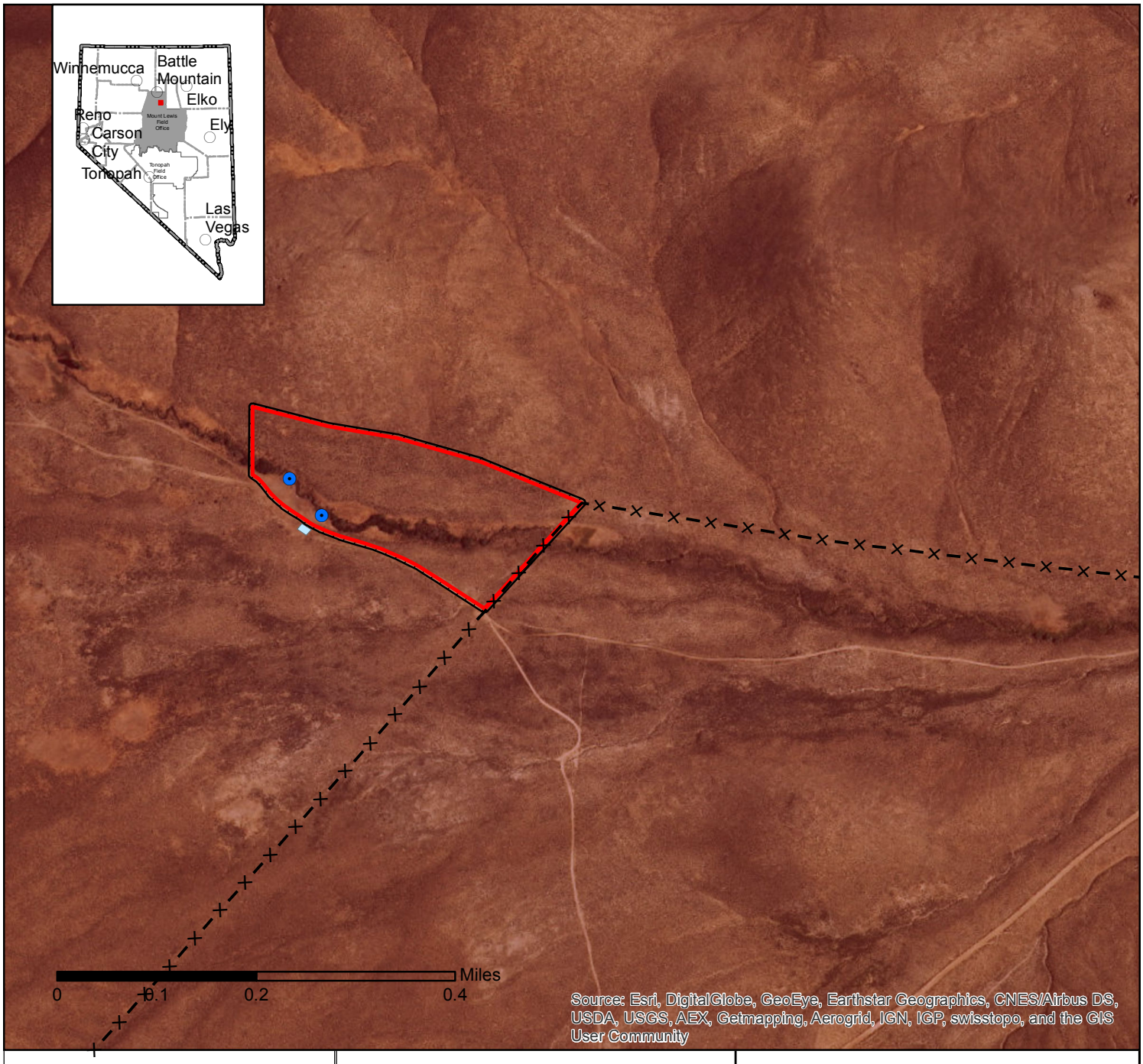
BUREAU OF LAND MANAGEMENT

Argenta Settlement Agreement
Environmental Assessment

Ferris Creek Project Area with Proposed Fencelines and Greater Sage-Grouse Habitat Management Areas from the Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana Nevada and Northeastern California Oregon Utah



Existing Fence

Proposed Fencelines

Potential Disturbance Area

Construction Lay Down Area

MIM Site

Priority Habitat Management Area

May 17, 2016

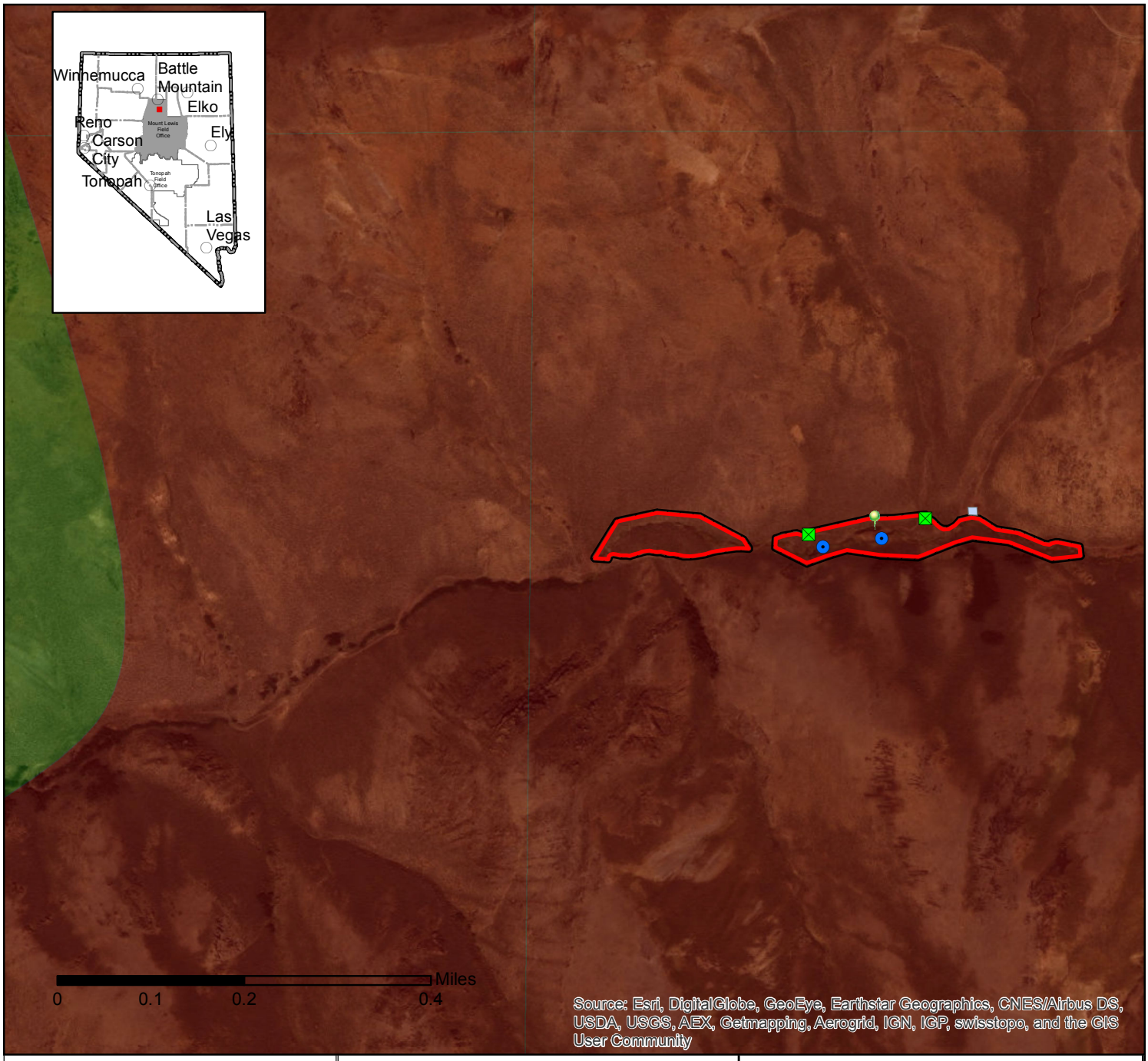
United States Department of the Interior
Bureau of Land Management
Battle Mountain District Office
Mount Lewis Field Office
50 Bastian Road
Battle Mountain, NV 89820

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data. Original data were compiled from various sources.This information may not meet National Map Accuracy Standards. This product was developed through digital means and may be updated without notifcation.

BUREAU OF LAND MANAGEMENT

Argenta Settlement Agreement
Environmental Assessment

Ferris Creek Project Area Proposed Fencelines and Greater Sage-Grouse Habitat Management Areas from the U.S. Geological Survey Greater Sage-Grouse 2016 Mapping



Construction Lay Down Area

MIM Site

Cattle Guard

Proposed Fencelines

Potential Disturbance Area

Priority Habitat Management Area

Other Habitat Management Area

Spring

May 17, 2016

United States Department of the Interior
Bureau of Land Management
Battle Mountain District Office
Mount Lewis Field Office
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Battle Mountain, NV 89820

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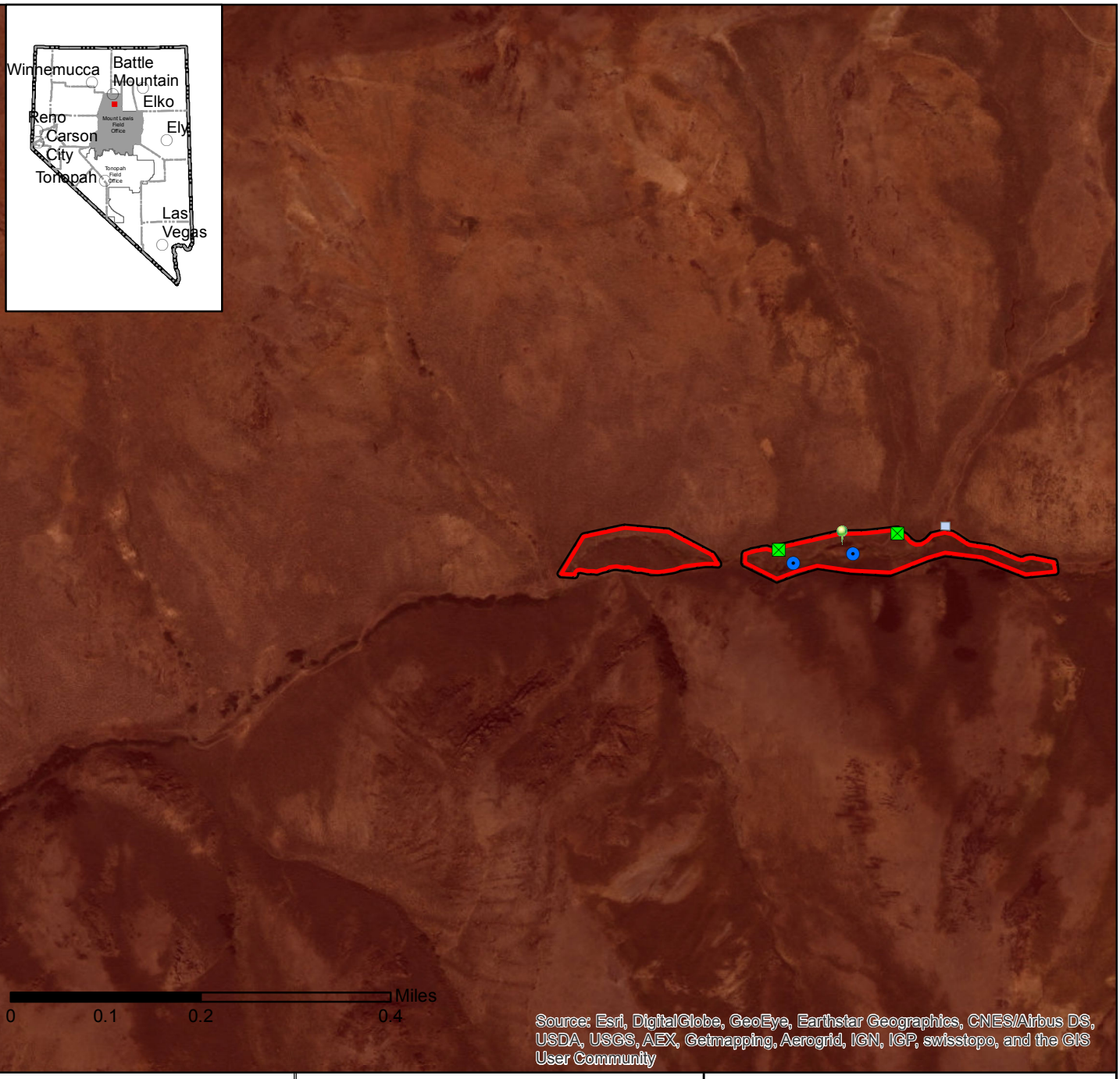
BUREAU OF LAND MANAGEMENT

Argenta Settlement Agreement
Environmental Assessment

North Fork of Mill Creek Project Area with Proposed Fencelines and Greater Sage-Grouse Habitat Management Areas from the Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana Nevada and Northeastern California Oregon Utah



Construction Lay Down Area

MIM Site

Cattle Guard

Proposed Fencelines

Potential Disturbance Area

Priority Habitat Management Area

Spring

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BUREAU OF LAND MANAGEMENT

Argenta Settlement Agreement
Environmental Assessment

North Fork of Mill Creek Project Area with Proposed Fencelines and Greater Sage-Grouse Habitat Management Areas from the U.S. Geological Survey Greater Sage-Grouse 2016 Mapping

2.3 Alternatives to the Proposed Action

The National Environmental Policy Act (NEPA) requires the consideration of alternatives other than the proposed action. Specifically, it states that agencies must “study, develop, and describe appropriate alternatives to recommend courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources” (42 USC 4332). The alternatives should address the issue(s) the proposed action attempts to achieve, but using other methods and should consider technical and economic factors.

2.3.1 No Action Alternative

Under the No Action Alternative, the fencing project would not be authorized. The stream segments identified in the proposed action would remain in their current condition, unless livestock operators modified grazing practices in other ways within their annually authorized permitted use, which could include reducing intensity of grazing near riparian areas, voluntary deferment of timing of livestock use, or more intensive herding.

2.3.2 Alternative Proposed but not Considered

2.3.2.1 No Grazing Alternative

This alternative would eliminate grazing on the Argenta Allotment. This is not a feasible alternative because it fails to meet the need of the proposed action and is not consistent with the current Shoshone-Eureka Resource Management Plan, Federal Land Policy and Management Act of 1976, or the Taylor Grazing Act of 1934.

2.3.2.2 Temporary Fencing Alternative

This alternative would involve constructing temporary fencing for the exclosures using panels and/or barbed wire in those areas where panels could not be placed. Temporary panel fences are typically constructed by using prefabricated panels affixed to T posts. Specific materials can vary depending on availability and terrain, some panel fencing is designed to be free standing. Temporary barbed wire fencing is typically constructed similar to that of a permanent barbed wire fence the H braces and corner braces are usually constructed in a less durable manner using prefabricated braces and t posts instead of 6' wood posts. Although this alternative would be designed to be temporary in nature, the increased maintenance demands and wildlife concerns associated with this fencing make it a less effective alternative to jack rail fencing. Temporary fences would not be as effective in providing safe ingress and egress for the wildlife species

in the area, as compared to jack rail fencing because when these fences are built as a temporary measure they tend to be even less so since the quality of the construction is less secure. Barbed wire fencing when compared to jack rail is less accommodating to wildlife and creates a greater chance of ensnarement due to its looser construction and barbs. Maintenance is needed more frequently so the fencing provides less security for the resource within an exclosure and damaged materials such as downed panels and barbed wire can become a hazard to wildlife becoming ensnared.The temporary fencing panels are also less sturdy and require more frequent maintenance to prevent livestock from entering into the exclosure area. The benefits of having temporary fencing that does not result in surface disturbance and can be readily removed is minimal under this alternative, given that the jack rail fencing also does not result in surface disturbance and can be removed and reused if future allotment management warrants removal of these exclosures. Given that there are few advantages to temporary fencing over the jack rail fencing, and given that there are disadvantages associated with such temporary fencing that would make such fencing less effective in protecting the riparian resources and less desirable for wildlife ingress and egress into the exclosed areas, this alternative has been eliminated from further consideration.

Chapter 3: Affected Environment and Environmental Consequences

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3.1 Supplemental Authorities to be Considered

Table 3.1: Supplemental Authorities Considered in the EA

Supplemental Authority	Not Present	Present/Not Affected	Present/May be Affected	Rationale
Air Quality		X		Effects to air quality would be minimal and temporary in nature, as effects would be limited to the construction phase. The resource was not brought forward for analysis.
Cultural/Historical		X		Effects to cultural resources would be avoided by complete avoidance or avoiding all aspects contributing to a site's eligibility. The resource was not brought forward for cumulative analysis because there would be no effects through avoidance. See discussions in Sections 3.3
Fish Habitat			X	See discussions in Sections 3.13 and 4.2.9
Forests and Rangelands (Healthy Forest Restoration Act [HFRA] only)	X			Forest and Rangelands are special designated areas which are not present in the Battle Mountain District.
Migratory Birds			X	See discussion in Sections 3.13 and 4.2.9
Native American Cultural Concerns			X	See discussion in Sections 3.4 and 4.2.1
Threatened or Endangered Species			X	See discussion in Sections 3.13 and 4.2.9
Wastes, Hazardous or Solid		X		Hazardous materials on site would be minimal and limited to the construction phase. Mitigation is provided through design features to eliminate the potential for effects.
Water Quality Drinking-Ground			X	See discussion in Sections 3.6 and 4.2.3
Wild and Scenic Rivers	X			No wild and scenic rivers in the Battle Mountain District.
Wilderness	X			No wilderness areas in or adjacent to the project area.
Environmental Justice	X			No low income or minority populations would be effected by the project.
Floodplains		X		There are no designated floodplains in the project area. Some of the projects may cross areas subject to flooding. The projects would not impact other floodplains or floodplain functions and therefore is omitted from further analysis.

Table 3.1: Supplemental Authorities Considered in the EA				
Supplemental Authority	**Not Present**	**Present/Not Affected**	**Present/May be Affected**	**Rationale**
Wetlands-Riparian Zones			X	See discussion in Sections 3.7 and 4.2.4

3.2 Other Resources Considered in the EA

Table 3.2: Other Resources Considered in the EA				
Other Resources	**Not Present**	**Present/Not Affected**	**Present/May be Affected**	**Rationale**
Areas of Critical Environmental Concern (ACEC)	X			No ACECs are present in the project area.
Farm Lands (Prime or Unique)	X			No Farm Lands (Prime or Unique) in the project area.
Human Health and Safety (Herbicide Projects)	X			No herbicides would be used during fence construction.
Noxious Weeds, Invasive and Non-Native Species			X	See discussion in Sections 3.5 and 4.2.2
Grazing Management			X	See discussion in Sections 3.8 and 4.2.5
Land Use Authorization	X			There are no existing Rights of Way near the project area.
Minerals		X		Mineral resources are not affected by riparian exclosures. It will not be analyzed further in this document.
Paleontological Resources	X			The project has no effect on any bedrock formations in the area.
Recreation			X	See discussion in Sections 3.9 and 4.2.6
Social and Economic Values		X		There would be no jobs created by the project and there would be no AUMs lost as a result of the exclosures. Social and Economic Values are not carried forward for analysis.
Soils			X	See discussion in Sections 3.10 and 4.2.7
Special Status Species (Plants and Wildlife)			X	See discussion in Sections 3.13 and 4.2.9
Vegetation			X	See discussion in Sections 3.11 and 4.2.8
Visual Resources			X	The project area is in a Class IV Visual Resources Management Area. See discussion in Sections 3.1. The effects would be minimal and were therefore not carried forward for cumulative analysis.
Wild Horses and Burros	X			Project is not in a Herd Management Area.
Wildlife			X	See discussion in Sections 3.13 and 4.2.9

3.3 Cultural Resources

Affected Environment

To evaluate any potential effects to cultural resources, the State Protocol states that the BLM will define the Area of Potential Effect (APE) for each undertaking, and that this area will include direct and indirect physical effects, and visual, audible, and atmospheric effects. The APE for this analysis consists of the surface area that the fence line will be placed on and a 10 meter buffer on the outside of the exclosure that may receive increased cattle trailing.

The primary laws regulating the preservation of cultural resources are Title 54 U.S.C. §300101, et. seq., commonly known as the National Historic Preservation Act of 1966, as amended (NHPA), the Archaeological Resources Protection Act (ARPA) of 1979, and the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990. Federal regulations obligate federal agencies to protect and manage cultural resource properties and prohibit the destruction of significant cultural sites and historic properties without first mitigating the adverse effect (36 CFR 800.3-800.7). These regulations apply to all federal undertakings and all cultural resources. To accomplish compliance under the NHPA, the Nevada BLM uses the *State Protocol Agreement between The Bureau of Land Management, Nevada and The Nevada State Historic Preservation Officer for Implementing the National Historic Preservation Act* (State Protocol).

Historic properties are defined as sites that are eligible for inclusion in the National Register of Historic Places (NRHP) or those that have not yet been evaluated for NHRP inclusion. For a property to be considered eligible, it must meet at least one of the following criteria:

Criterion A: The resource is associated with events that have made a significant contribution to the broad pattern of history.
Criterion B: The resource is associated with the lives of people significant in the past.
Criterion C: The resource embodies distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic value; or represents a significant and distinguishable entity whose components may lack individual distinction.
Criterion D: The resource has yielded, or may be likely to yield, information important in prehistory or history.

To initially identify, record, and evaluate historic properties, the Nevada BLM typically requires a Class III Inventory, as defined by the *Guidelines and Standards for Archaeological Inventory, January 2012-Fifth Edition*. Each of the locations have had varying amounts of previous inventories completed, some of which have identified historic properties.

Ferris Creek

At the Ferris Creek location, a Class III inventory of the entire physical APE has been completed in 2015. Two historic properties were identified during this inventory. These sites are currently affected by a road and fence that were previously constructed, and the surface integrity of each of these sites has been heavily impacted by livestock impacts such as trampling at this location.

The site at the Ferris Creek location is eligible for its possible research potential under Criterion D. This research potential comes from the site possibly containing intact subsurface deposits. The ground surface, as well as the first few centimeters underneath, lack integrity due to existing cattle disturbances and erosional processes. Setting a jack rail fence (non-intrusive) across the site would not disturb any subsurface deposits. Also, cattle trampling on a surface that lacks integrity would not cause any adverse effects to possible subsurface deposits, therefore no adverse effects to the component of the site that makes it eligible would occur.

North Fork of Mill Creek

The North Fork of Mill Creek area has never been inventoried; therefore there are no known historic properties in this location. This area is currently affected by an existing road, and the ground surface has been impacted by livestock impacts such as trampling.

In regards to the areas that have not been inventoried, Section 7.E.a of the *State Protocol Agreement between The Bureau of Land Management, Nevada and The Nevada State Historic Preservation Officer for Implementing the National Historic Preservation Act, Revised December 22, 2014* provides design features for the construction of exclosure fences so that, when followed, these projects can be categorically considered to have no adverse effect on historic properties. This would still require a Class III inventory of the project area so that these measure could be met, and this will occur prior to construction. Any properties identified during those inventories will be avoided according to the stipulations set forth in the Protocol Agreement, thereby avoiding all adverse effects to historic properties.

Environmental Consequences

Proposed Action

The direct physical effects of this proposed action would be the surface disturbance of any T-post fences that would be used during the construction of the fences. To minimize the surface disturbance of fencing materials, jack rail

fencing would be used instead of T-posts whenever possible. Instead of being physically staked into the ground, jack rail fences lie on the surface. Indirect physical effects of the proposed action would consist of the surface disturbance created from any cattle trailing/trampling along the outside of the fences once the exclosure is established. This would affect the ground surface within a 10 meter buffer zone outside of each fence line. Visual, audible, and atmospheric effects would have no impact to the eligibility determinations of any of the historic properties in the affected environment.

According to Section V. E. 7. of the State Protocol, fences can be categorically determined to have no adverse effect when fences are constructed with a 10 meter buffer zone from known boundaries of historic properties, or if they follow existing roads or similar surface disturbances. This procedure only applies when an area has been sufficiently inventoried and evaluated by a BLM-qualified archaeologist. In the areas that have not been inventoried, a Class III inventory would be conducted prior to the construction of the fence so this stipulation can be met. The North Fork of Mill Creek exclosure would be constructed to avoid all historic properties by 10 meters and/or follow existing disturbances to satisfy these measures. At the Ferris Creek location, a portion of the fence line would be placed across segments of an eligible site. The integrity of the surface of this site in these areas has already been compromised due to cattle trampling, therefore any cattle trailing alongside the outside of the proposed fence would not have any additional effects that the site has not already incurred. Utilizing these construction parameters at each of these locations, the research potential (Criterion D) of the historic properties would not be affected.

The proposed action would also effectively stabilize the condition of any historic properties located within the exclosures. No cattle intrusions into the interior of the exclosures would prevent further surface disturbance to those sites inside. It would also most likely deter entrance from the general public to these locations, decreasing the risk of the unauthorized surface collection of artifacts.

No Action Alternative

Implementing a No Action Alternative would result in no fences being built in these locations. This would result in the continuation of existing conditions and trends at these locations, most notably, the continued degradation of the surface condition of known historic properties within the proposed exclosure areas due to grazing in these areas.

3.4 Native American Concerns

Affected Environment

Located within the traditional territory of the Western Shoshone, the Mount Lewis Field Office administrative boundary contains spiritual, traditional, and cultural resources, and sites to engage in social practices that aid in maintaining and

strengthening the social, cultural, and spiritual integrity of the Tribes. In accordance with the NHPA (P.L. 89-665), NEPA (P.L. 91-190), the Federal Land Policy and Management Act (P.L.94-579), the American Indian Religious Freedom Act (P.L. 95-341), the Native American Graves Protection and Repatriation Act (P.L. 101-601), and Executive Order 13007, the BLM must provide affected tribes an opportunity to comment and consult on the proposed project. BLM must attempt to identify locations having traditional/cultural importance and reduce or possibly eliminate any negative impacts to identified traditional, cultural, spiritual sites, activities, and/or resources.

The following document has also produced descriptions of past traditional/cultural use of locations near the project boundary: *Behind the Argenta Rim: Prehistoric Land Use in Whirlwind Valley and the Northern Shoshone Range* (Robert Elston and Margaret Bullock. 1994).

Known locations (to BLM) of cultural/traditional significance within the region are: Mule Canyon (to the Northeast) which shows extensive plant processing, and the Whirlwind Valley (to the northeast), which once contained a large geyser and hot spring complex.

Public notice letters seeking input from the Battle Mountain Band and the Te-Moak Tribe of the West Shoshone Nation were sent out on November 25, 2015. A follow up call on December 2, 2015 to the Te-Moak Tribe and Battle Mountain Band seeking input was also made. Currently no formal comments on input have been provided from either group.

Social activities of Native Americans continue to define places of cultural importance across lands currently administered by the BLM. Some Western Shoshone maintain cultural, spiritual, and traditional activities, visit their sacred sites, hunt game, and gather available medicinal and edible plants. Through oral history (the practice of handing down knowledge from the elders to the younger generations), some Western Shoshone continue to maintain a world view similar to that of their ancestors.

Cultural, traditional, and spiritual sites and activities of importance to Tribes include, but are not limited to the following:

- Existing animal traps;
- Certain mountain tops used for vision questing and prayer;
- Medicinal and edible plant gathering locations;
- Sites associated with creation stories;
- Hot and cold springs;
- Collection of materials used for basketry and cradle board making;

- Locations of stone tools such as points and grinding stones (mano and matate);
- Chert and obsidian quarries;
- Hunting sites;
- Rock collecting for use in offerings and medicine gathering;
- Rock shelters;
- Lands or resources that are near, within, or bordering current reservation boundaries;
- Actions that conflict with tribal land acquisition efforts.

Environmental Consequences

Various Tribes and Bands of the Western Shoshone have stated federal projects and land actions can have widespread effects to their culture and religion as they consider the landscape as sacred and as a provider. Various locations throughout the BLM MLFO Battle Mountain administrative area host certain traditional, spiritual, and cultural use activities today, as in the past. Traditional Cultural Property (TCP), designated by the Tribes, is not known to exist in or within the vicinity of the project area. The BLM continues to solicit input from local tribal entities. The BLM is continuing to coordinate with the Tribes to identify any other sites or artifacts, or cultural, traditional, and spiritual use resources and activities that might experience an impact.

If any TCPs, tribal resources, sacred sites, etc. are identified within or in close proximity to the project area, a protective buffer zone may be appropriate, if doing so satisfies the needs of the BLM, the proponent, and affected Tribe. The size of any buffer zone would be determined through coordination and communication between all participating entities.

During the project's activities, if any cultural properties, items, or artifacts (i.e., stone tools, projectile points, etc.) are encountered, it must be stressed to those involved in the proposed project activities that such items are not to be collected. The design features in Section 2.2 state that all activities would be halted immediately in the event of a discovery of a cultural resource. Cultural and archaeological resources are protected under the ARPA (16 US Code 470ii) and the FLPMA.

Though the possibility of disturbing Native American gravesites within most project areas is extremely low, inadvertent discovery procedures must be noted. Under the NAGPRA, Section (3)(d)(1), the discovering individual must notify the authorized officer in writing of such a discovery. If the discovery occurs in connection with an authorized use, the activity, which caused the discovery, is to

cease and the materials are to be protected until the land manager can respond to the situation.

At this time, no impacts related to Native American Concerns have been identified and are not anticipated from the proposed action. Tribal relations and coordination does not terminate with the land use decision itself,; BLM would continue to engage Tribes regarding treatments, mitigation, reclamation, and disposition of artifacts and reports.

3.5 Noxious Weeds, Invasive, and Non-Native Species

Affected Environment

Noxious weeds, invasive and non-native species are species that are highly competitive, aggressive and spread easily. They typically establish and infest disturbed sites, along roadsides and waterways. Changes in plant community composition from native species to non-native species can change fire regimes, negatively affect habitat quality, biodiversity, and ecosystem structure and function.

Noxious weeds and invasive plant species have been defined as pests by law or regulation. The BLM defines a noxious weed as, “a plant that interferes with management objectives for a given area of land at a given point in time” (BLM, 2016). The Federal Noxious Weed Act of 1974 (as amended by Section 15, Management of Undesirable Plants on Federal Lands, 1990) authorizes cooperation among federal and state agencies in the control of weeds. The BLM Battle Mountain District recognizes the current noxious weed list designated by the State of Nevada Department of Agriculture (NDOA) statute, found in NAC 555.010. Currently the list contains 47 noxious weed species. When considering whether to add a species to the list, the NDOA makes a recommendation after consulting with outside experts and a panel comprising Nevada Weed Action Committee members. Per NAC 555.005, if a species is found probable to be "detrimental or destructive and difficult to control or eradicate", the NDOA, with approval of the Board of Agriculture, designates the species as a noxious weed. The species is then added to the noxious weed list in NAC 555.010. Upon listing, the NDOA will also assign a rating of "A", "B", or "C" to the species. The rating reflects the NDOA view of the statewide importance of the noxious weed, the likelihood that eradication or control efforts would be successful, and the present distribution of noxious weeds within the state.

An “invasive species” is defined as a species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (EO 13112, signed February 3, 1999).

The BLM’s policy relating to the management and coordination of noxious weeds and invasive plant species is set forth in the BLM Manual 9015 – Integrated Weed

Management. The BLM's primary focus is providing adequate capability to detect and treat smaller weed infestations before they have a chance to spread. Noxious weed control is based on a program of prevention, early detection, and rapid response.

Noxious weeds, invasive and non-native species are known to exist on public lands within the project area and are a concern for site function and productivity, threatening biodiversity, habitat quality and ecosystem stability. Guidelines for managing noxious weeds, invasive and non-native species in the Argenta Allotment have been followed in accordance with the BLM District Integrated Weed Management Plan.

Several species of noxious weeds and invasive species have been documented within the project area. Noxious weeds within the project area include hoary cress (*Cardaria draba*), scotch thistle (*Onopordum acanthium*), musk thistle (*Carduus nutans*) and saltcedar (*Tamarix* spp.). Invasive and non-native species include bull thistle (*Cirsium vulgare*), pale madwort (*Alyssum alyssoides*), yellow rabbitbrush (*Chrysothamnus viscidiflorus*), tansy mustard (*Descurainia pimmata*), halogeton (*Halogeton glomeratus*), Russian thistle (*Salsola tragus*) and cheatgrass (*Bromus tectorum*).

Environmental Consequences

Proposed Action

Under the proposed action there is a low potential for promoting the spread and establishment of noxious weeds, invasive and non-native species. Surface ground disturbance during fence construction may introduce or spread weeds already present in the project area. Additionally, vehicles present in the area temporarily during fence construction may facilitate the spread and establishment of weeds. Any equipment or vehicles exposed to weed infestations or arriving on site carrying soil or plant debris would be cleaned before moving into or within the project area to help control the spread of weed infestations along roadsides and other areas.

Trailing by livestock along fence lines may cause ground disturbance potentially promoting the spread of weeds already in the area. However, as outlined in the design features, fences would be placed where existing disturbance and topography would limit the impacts of trailing, such as by placing most of the fence lines along existing roads, loafing areas or traversing steeper slopes where disturbances already exist or that livestock typically avoid. In addition, the current BMD noxious weed program would continue, which could result in some site specific treatments at these locations if deemed necessary and within budget priorities.

The proposed action would promote improved condition of plant communities and reduce the vulnerability of the project area to weed infestations by excluding livestock from grazing and ground disturbance. Maintaining healthy rangeland would support native shrubs, understory grasses and forbs that remain intact and

compete with the invasive annual and perennial species. When the recovery of drought stressed vegetation begins to improve and become more resilient, native vegetation would better compete and help protect against noxious weeds, invasive and non-native species.

The area inside the exclosure that would benefit from removal of livestock use would be larger than any areas impacted by livestock trailing along fence lines. Considering the size of the proposed action, impacts related to noxious weeds, invasive and non-native species would be negligible.

No Action Alternative

Under the No Action Alternative, no fences would be constructed and there would be no direct impacts expected. However, the continuation of concentrated use by livestock in the riparian areas would continue. The incremental impacts from noxious weeds, invasive and non-native species as a result of the No Action Alternative, in combination with past and present actions and RFFAs, are expected to be minimal.

3.6 Water Resources and Water Quality

Affected Environment

The Clean Water Act (CWA) is the primary law protecting waters of the US. Section 404 of the CWA (33 USC 1344) prevents the discharge of dredged or fill material into waters of the US without a permit from the US Army Corps of Engineers. The Safe Drinking Water Act (SDWA) sets standards for public water systems in the US for many contaminants. SDWA also sets secondary standards for other pollutants that may cause cosmetic effects, but are not enforceable. The State of Nevada however has more stringent guidelines and enforces the EPA's secondary water standards. The Nevada Bureau of Water Quality Planning has water quality standards for toxic materials applicable to designated waters and livestock water standards (NAC 445A.1236). No data was available on these streams regarding Section 303(d) (water quality standards) of the Clean Water Act 1977.

The project areas lie in the Humboldt River Basin (NDWR 1992). Each stream segment is located on BLM administered land. Julian Tomera Ranches Inc. holds a water right (V07579) that covers the North Fork of Mill Creek project area. The water right is located in Mills Creek[1]in a natural channel in the Sections of Township 29N & 30N and Ranges 44E & 45E MDBM. The water right is used for stock watering for up to 300 cattle, 20 horses, and 2,000 sheep. The water right states that the calculated diversion of water is 0.022 cubic feet per second (CFS), which equates to approximately 14,220 gallons per day. The period of use for the water right is from January 1 through December 31. No water discharge data is available

[1] V07579 names the water right as Mills Creek, which is synonymous with North Fork of Mill Creek.

for springs North Fork of Mill Creek. Ferris Creek currently has no water rights associated with it.

Environmental Consequences

Proposed Action

The proposed action would have positive impacts to water resources in the project area. In each stream segment the water quality would likely improve from being fenced off to exclude livestock. Practices that improve livestock distribution and attract livestock away from stream sides are recommended in meeting water quality standards (Tiedemann et al. 1987). Proper management practices on degraded riparian areas allows vegetation and succession to start and the riparian system begin to function properly as the benefits begin to reappear, including improved water quality (Elmore and Breschhta 1987). Livestock would not be able to trample the area and defecate directly in the spring water, thus improving water quality. The exclusionary fencing would enable riparian vegetation near the streams to recover. Over time, this would reduce soil compaction and erosion, increase porosity, and reduce stream bank alteration. The increased porosity and reduced surficial drainage that is expected to occur after livestock exclusion would increase the soil's storage capacity and help to stabilize flows in the stream.

In the short-term, erosion and soil compaction associated with land disturbance in the upland and riparian zones may increase from construction activities. However, the disturbance should revegetate and recover from any adverse effects caused by project construction. It is expected that riparian health and water quality would improve.

Erosion and soil compaction around the fence lines would likely increase as trailing of livestock occurs (Swanson Wyman and Evans 2015). However, because riparian areas are significantly more productive than the upland sites where the fence lines would be located and would benefit a greater area than trailing would negatively impact, the net effect is expected to be positive for the ecosystem, livestock, and wildlife. Trailing impacts would also be mitigated by the placing the fences mainly along roads where disturbance already exists; or along steep slopes where livestock are less likely to traverse (Holechek 1988).

The current water right on the North Fork of Mill Creek is for 300 cattle, 20 horses, and 2,000 sheep. Water requirements and intake by cattle can vary based upon a number of variables (size of animal, lactating, temperature, etc.) (Smith, Leung and Love 1986). BLM specialists estimated approximately 15 gal/day for the use within the project area. According to these estimates 4,500 gallons of water is allocated for cattle, 300 gallons of water for horses, and approximately 3,000 gallons of water per day for sheep, totaling 7,800 gallons of water per day for the stream. The exclosures would not impact the overall availability of allocated stockwater, as water would continue to be available at the water gap as well as from other portions of the stream outside of the exclosure on both public and private lands.

No Action Alternative

The No Action Alternative would result in continued conditions and trends of the stream segments resulting from livestock use. The current conditions allow livestock to traverse the stream segments, which results in impacts to water quality through trampling. This trampling causes erosion and sedimentation of the waters. Water quality is also impacted by livestock defecating directly in the water. Even with modified management practices, water quality in the stream segments would likely continue to degrade or would not improve under the No Action Alternative.

3.7 Wetland and Riparian Zones

Affected Environment

Both Federal and State laws and regulations protect waters of the state, which includes wetlands. The Clean Water Act (CWA) is the primary law protecting US waters. Section 404 of the CWA (33 USC 1344) prevents the discharge of dredged or fill material into waters of the US without a permit from the USACE. EO 11990 (Protection of Wetlands) requires Federal agencies to take action to minimize the destruction, loss or degradation of wetlands, and to conserve and enhance the beneficial values of wetlands.

National Wetland Inventory (NWI) data was viewed in GIS and it was found that no wetland areas were identified within the project areas. The NWI is not a comprehensive survey of wetlands and in Nevada focus primarily on the larger systems, typically in the valleys. Thus, small isolated wetlands may be present, but have not been mapped.

Riparian areas act as a transition zone around bodies of water from upland areas to aquatic zones. The riparian areas surrounding the stream segments are degraded due to current management practices which have compacted the soils around the streams. The saturated soils surrounding the springs have been compacted from livestock trampling to the point that vegetation reestablishment is reduced. This accelerated runoff has decreased the spatial extent of the saturated soils and corresponding riparian vegetation. The condition of the riparian areas surrounding the streams is trending downwards as soil erosion has increased due to insufficient vegetation to bind the soil and slow runoff. The loss of organic rich soil has decreased the long-term potential of the site.

Within each of the proposed exclosures, the stream is perennial. According to the Rosgen Stream Class System, Ferris Creek is classified as a G5, and North Fork of Mill Creek as a B3a.[2]

[2] http://cfpub.epa.gov/watertrain/moduleFrame.cfm?parent_object_id=1199

Ferris Creek was assessed for PFC in 2005 and was functional at risk with a downward trend and therefore also would not meet the Standards for Rangeland Health. Of the seventeen indicators on the PFC assessment for the lotic sections, one was not applicable, eleven were positive, and five were negative. The field notes indicated that there was significant bank shearing, inadequate vegetation along banks, the riparian zone was confined by down cutting, and the woody species were in poor vigor.

Portions of the North Fork of Mill Creek within the project area were assessed for PFC in 2005 showing lotic sections as functional at risk with a downward trend and lentic sections as non-functional with a downward trend; therefore both would not meet the Standards for Rangeland Health. Of the seventeen indicators on the PFC assessment for the lotic sections, two were not applicable, thirteen were positive, and two were negative. The field notes indicated excessive bank shearing along this reach. Of the twenty indicators on the PFC assessment for the lentic three were not applicable, fifteen were positive, and two were negative. Field notes indicated that the wetland area was shrinking from dewatering and surface disturbance and flow patterns were altered by hoof action from livestock and vehicle travel.

Environmental Consequences

Proposed Action

The proposed action would fence off the stream segments aiming to restore the streams by eliminating livestock access and associated trampling, over-utilization, and erosion. Removing livestock from the streams, by using exclusionary fencing, would allow the streams and their corresponding riparian area to regain PFC by increasing the riparian extent, increasing soil water storage, biological integrity, and ecological value. Maintaining proper amounts of herbaceous vegetation is a critical part of increasing sediment deposition and enhancing channel restoration in small stream systems (Clary et al. 1996). Excluding grazing from degraded riparian areas allows vegetation and succession a head start and as the riparian system begins to function properly the benefits from healthy riparian areas begin to reappear, including more stable stream channels, a shift towards a more perennial stream flow and reduced flood peaks (Elmore and Breschhta 1987). Placing the proposed exclusionary fences beyond the current riparian extent would allow for future expansion of the riparian areas as the soils rehydrate and the riparian vegetation returns and increases.

In the short-term, erosion and soil compaction associated with the land disturbance in the riparian zone may increase from construction activities. However, the disturbance would revegetate and would recover from any adverse effects caused by project construction. It is expected that riparian health would improve.

The South Maysville Use Area, containing Ferris Creek is comprised of public and private land. The Ferris Creek Exclosure would exclude livestock on the public portion

of the use area. The remaining unfenced segments in the upper portion of Ferris Creek on public land are steep, rocky and intermittent, creating a natural barrier for livestock. The lower portion of Ferris Creek in the Indian Creek use area is separated by an existing drift fence and no changes to current livestock impacts on the lower sections would occur as a result of exclosure construction. Due to the small size of this exclosure, cattle distribution and impacts would likely not change at this location outside of the exclosure. Any changes in upland utilization due to the loss of available forage would be minimal. Utilization triggers would remain applicable and the livestock would be required to be removed under the terms of the settlement agreement if the triggers are met. The exclosure would include 0.31 miles of riparian area and the project area (within the exclosure) totals 21.3 acres out of 15,433 acres, which is about 0.1% of the South Maysville Use Area. Water for livestock would be available outside of the exclosure on both public and private lands (see Map at 2.3.2).

The proposed North Fork of Mill Creek Exclosure is in the upper segment of the stream which is the most sensitive to change from management practices. The lower segments of North Fork of Mill Creek have a steeper gradient, banks are more rock dominant and the vegetation is more woody dominated (Willow and Aspen). Each of these attributes on the lower segments of North Fork of Mill Creek lead to streams being more resilient to the impacts of livestock grazing and other management activities. The same level of livestock impacts on the lower segments have not been observed and changes in distribution from the installation of the proposed exclosure would not significantly change livestock impacts outside of the exclosure. Any changes in upland utilization due to the loss of available forage would be minimal. Utilization triggers would remain applicable and the livestock would be removed under the terms of the settlement agreement if the triggers are met. The exclosure would include 0.45 miles of riparian area and the project areas (within the exclosure) totals 8.4 acres out of 4,915 acres for the total use area making up about 0.2% of the North Fork of Mill Creek Use Area. Water for livestock would be available outside of the exclosure on both public and private lands. A road crossing would also be left at the location where the current two-track road crosses the stream, leaving water available for livestock use at that location (see Map at 2.3.3).

This alternative is expected to have an overall net positive effect on streams within the exclosures by eliminating livestock useand allowing for streams to recover within the exclosures. Grazing use changes outside of the exclosures would be expected to be minimal and impacts and trends would remain similar to current management practices.

No Action Alternative

The No Action Alternative would not result in the construction of the exclosure fences. Conditions in the Argenta Allotment would remain the same as under the current management system. Under the No Action Alternative, these riparian areas would continue to have only a limited ability to recover from the current impacts of livestock grazing on those stream sections.

3.8 Grazing Management

Affected Environment

The project area is located within the South Maysville and North Fork Use Areas of the Argenta Allotment on BLM administered lands; adjacent private lands are near the project area (Map 2.3). The Argenta Allotment consists of approximately 331,518 total acres of which 141,689 acres are administered by the BLM. 18,025 AUMs associated with the public lands are currently permitted between six different permittees in the Argenta Allotment. Livestock grazing is permitted year round (March 1 – February 28) on the allotment though each permit is not necessarily a year round permit. Cattle, sheep and horses are each permitted to graze on the Argenta Allotment. The following table shows the permitted livestock use for the Argenta Allotment:

Table 3.8 Permitted Livestock Use on the Argenta Allotment

Permittee	Auth. #	Number	Kind	Begin	End	PL%	AUMs
Chiara Ranch	2706006	183	Cattle	3/1	11/30	61	1009
		15	Cattle	6/1	6/30	61	9
C Ranches	2702926*	64	Cattle	3/1	2/28	56	430
	2703274	308	Cattle	3/1	3/31	100	314
		206	Cattle	11/1	2/28	100	813
Elko Land and Livestock Company	2701589	159	Cattle	11/15	2/28	70	388
		159	Cattle	3/1	3/1	70	4
Filippini Jr. Henry	2700159	48	Cattle	3/16	12/31	100	459
		1	Cattle	3/16	4/16	100	1
Julian Tomera Ranches Inc.	2706005	2106	Sheep	2/16	2/28	100	180
		1490	Sheep	4/1	9/30	100	1793
	2706028	1760	Cattle	3/1	2/28	56	11827
		1	Cattle	3/1	4/30	56	1
		11	Horses	3/1	12/31	56	62
Rand Properties	2703388	30	Horses	3/1	12/30	100	301

* Lease has expired and is in process to be renewed or returned to Julian Tomera Ranches Inc. Permit

The portion of the project area in Ferris Creek is located in the South Maysville Use Area and is primarily used by Julian Tomera Ranches Inc. The Maysville South Use Area is also unfenced and occasional drift from the other permittees' livestock occurs in the use area. The portion of the project area in the North Fork of Mill Creek is located in the North Fork Use Area and is primarily used in common by Julian Tomera Ranches Inc. and Chiara Ranch. Like the other two use areas the North Fork Use Area is unfenced; unlike the other two use areas drift from other permittees livestock has not been observed/recorded by BLM.

Environmental Consequences

Proposed Action

The proposed action would completely remove the impacts of livestock grazing on the stream segments within the exclosures. The proposed action would impact grazing distribution outside of the proposed exclosures; however these impacts would be expected to be minimal and/or localized. Increased grazing pressures outside of exclosures around the water sources could lead to negative impacts through heavier-utilization of these riparian areas, increased localized soil compaction, increased runoff and erosion, and increased probability of weed infestation. These impacts would be expected to be minimal on BLM administered lands due to the exclosures being placed on the most sensitive segments of their respective streams. Impacts from increased livestock trailing along new fence lines may occur. These impacts are typically small and would be further mitigated by much of the fence lines following existing roads, loafing areas and/or traversing steeper slopes where disturbance already exists or livestock typically avoid.

The South Maysville Use Area, containing Ferris Creek, is comprised of public and private land. The Ferris Creek Exclosure would exclude livestock on the public portion of the use area. The remaining unfenced segments in the upper portion of Ferris Creek on public land are steep, rocky and intermittent. The lower portion of Ferris Creek in the Indian Creek Use Area is separated by an existing drift fence and no changes to current livestock impacts on the lower segments would occur. Due to the small size of this exclosure cattle distribution and impacts would likely not change at this location outside of the exclosure. Any changes in upland utilization due to the loss of available forage would be minimal. Utilization triggers would remain applicable under the settlement agreement and the livestock would be required to be removed if the triggers are met. The exclosure would include 21.3 acres (out of 15,433 acres for the total use area), or about 0.1% of the South Maysville Use Area. Water for livestock would be available outside of the exclosure on both public and private lands.

The upper segment is the most sensitive segment of the North Fork of Mill Creek and is proposed to be fenced. The lower segments of North Fork of Mill Creek have a steeper gradient, banks are more rock dominant and the vegetation is more woody dominated (Willow and Aspen). Each of these attributes on the lower segments lead to the stream being more resilient on the unfenced stream segments to the potential impacts of livestock grazing. The same level of livestock impacts on the lower segments have not been observed and changes in distribution from the installation of the proposed exclosure would not significantly change livestock impacts outside of the exclosure. Any changes in upland utilization due to the loss of available forage would be minimal. Utilization triggers would remain applicable under the terms of the settlement agreement and the livestock would be required to be removed if the triggers are met. The exclosure would include 8.4 acres (out of 4.915 acres for the total use area), or about 0.2% of the North Fork of Mill Creek Use Area. Water for livestock would be available outside of the exclosure on both public and private lands. A water gap would also be left at the location where the current two-track road crosses the stream, leaving water available for livestock use at that location.

This alternative is expected to have an overall net positive effect on streams within the exclosures by eliminating livestock use. Changes to livestock use outside of the exclosures would be expected to be minimal.

No Action Alternative

The No Action Alternative would not result in construction of the exclosure fences. Condition trends in the Argenta Allotment would remain unchanged under this alternative. Although the 4 inch stubble height utilization trigger would remain under the terms of the settlement agreement, this Alternative would result in a more limited opportunity for these riparian areas to recover from the current impacts of livestock grazing on the stream sections as compared to the proposed action where the complete exclusion of livestock from the riparian areas would allow them to recover more quickly, and would also reduce the risk that the 4 inch stubble height trigger could be exceeded at some locations before livestock are moved.

3.9 Recreation

Affected Environment

The project area is relatively isolated and undeveloped. There are no recreation facilities within the project area and vicinity, and in this part of Nevada, developed recreational opportunities are relatively sparse. In the project area, opportunities for public recreation are considered as dispersed in nature and primarily include off-highway vehicle use, hunting and camping, mountain biking, horseback riding, sightseeing, outdoor photography, nature study, wildlife viewing, bird watching and rock collecting.

Environmental Consequences

Proposed Action

There would be negligible impacts to recreational opportunities from the proposed action. Overall, the 34.6 acre footprint (area of combined exclosures) of the riparian exclosures would have a negligible impact to recreation within the area.

No Action Alternative

Under the No Action Alternative, the BLM would not approve the proposed action. The riparian areas would continue to be degraded from from livestock use or would not have the opportunity to recover and transition back to a healthy condition. The continued degradation would lead to further soil erosion from the inability of plant communities to stabilize the stream banks. This could lead to deeply incised streams and loss of ecological function. Degraded riparian areas could, over time,

reduce wildlife populations in the area and decrease hunting or other recreational opportunities.

3.10 Soils

Affected Environment

Soils are unconsolidated materials overlying bedrock or other parent material. Soils play a critical role in both the natural and human environment. Soil structure, elasticity, strength, shrink-swell potential, and erodability determine the ground's ability to support vegetation, man-made conservation practices, structures, and facilities. Soils are typically described in terms of complex type, slope, physical characteristics and relative compatibility or constraining properties with regard to types of land use and/or construction activities.

Ferris Creek

The Ferris Creek project area is comprised of one major soil composition according to the NRCS (NRCS 2013, NRCS 1980). The project area lies in Welch loam (4140) association (WL) and is near the boundaries of the Robson-Wiskan (3150) association (RW) and the Wieland-Allor (1670) association (WA).

WL soils are primarily found on inset fans in elevations of 6,500 to 8,200 feet with slopes between 2 and 8%. The WL association has one major component, Welch soil, that makes up approximately 90% of the association. The remaining 10% is made up of two inclusions. Inclusion 1 is located on the toe slopes adjacent to inset fans and inclusion 2 is located on unentrenched smooth flood plains of inset fans. Both have a slight risk of erodability rating to wind and water.

North Fork of Mill Creek

The North Fork of Mill Creek project area is comprised of two major soil compositions according to the NRCS (NRCS 2013, NRCS 1980). The project area lies in Hapgood-Tusel-Winada (466) association (HTW) and the Sumine-Winada Variant-Pernty (1429) association (SWVP).

HTW soils are primarily found in mountains in elevations of 7,200 to 8,000 feet with slopes between 30 and 75%. There are three major soil types that make up 90% of this association: Hapgood very gravely loam, Tusel very gravely loam, and Winada gravely loam. The other 10% is made up of three separate inclusions which are not present within the project area. Erodability from water ranges from moderate to severe and slight erodability rating for wind.

SWVP soils are primarily found in mountains in elevations of 6,500 to 9,200 feet with slopes between 30 and 50%. There are also three major soil types that make up 90% of this association: Sumine very gravely loam, Winada Variant very fine sandy loam and Pernty very gravelly sandy loam. The other 10% is made up of two separate inclusions which are not present within the project area. Erodability from water is moderate and slight erodability for wind.

Environmental Consequences

Proposed Action

The proposed action is estimated to impact up to approximately 60.35 acres of soils through the introduction of equipment, construction crews, and the installation of small permanent structures. The disruption of soils from constructions related activities at each site would only be temporary, as the **construction at each site** is estimated to take two weeks. The construction crew will utilize existing roads and minimize overland travel paths to reduce the amount of new soil disturbance.

The proposed action would benefit soil health within the project locations as well as water quality by reducing erosion and sedimentation potential. However, some impacts to soils from concentrated livestock trailing along fence lines would be expected. These impacts would include soil compaction, increased wind driven soil erosion as vegetation is denuded (Holechek et al. 2011; Thurow et al 1986). Increased soil erosion via water could occur during storm events in areas where vegetation has been denuded. These impacts areas along fence lines are typically small and would be further mitigated by following existing roads or traversing steeper slopes where disturbances already exist or that livestock typically avoid. Additionally, it is anticipated that larger areas within the exclosures would see a reduction of soil erosion and compaction through the removal of livestock use, thus creating an overall net positive effect.

The proposed action would increase soil stability and water holding capacity in fenced off areas, allowing riparian vegetation to expand. The increased root structure and surface roughness would reduce future erosion and downstream sedimentation.

No Action Alternative

The No Action Alternative would result in continued impacts to soils from livestock trampling of the wet soils around the streams. Livestock would continue to alter the soil health near the stream segments.

3.11 Vegetation

Affected Environment

The project lies in the Central Nevada High Valleys ecotone in the Great Basin, which is mostly composed of rolling hills and valleys over 5,000 feet. Wyoming big sagebrush (*Artemisia tridentate var. wyomingensis)* tends to dominate flatter areas and black sage brush (*Artemisia nova)* is commonly present on alluvial fans and volcanic hills (Bryce *et al.* 2003).

Ferris Creek

Upland Vegetation

The Ferris Creek project area contains many native vegetation species. It is located in a Loamy Bottom 8-14" P.Z., Loamy 8-10" P.Z. and a Claypan 10-12" P.Z. Upland species identified during the site visits included sagebrush and rabbitbrush. Other upland species identified during the BLM survey included, Sandberg's bluegrass, bottlebrush squirreltail, spiny phlox, longleaf phlox, cheatgrass and annual mustard. There were also weedy species documented, which are discussed in Section 3.5.

Wetland/Riparian Vegetation

Some of the species identified during 2015 MIM have an Obligate Wetland, or Facultative Wetland status. The following species were recorded: Nebraska sedge, artic rush, annual rabbitsfoot grass (*Polypogon monspeliensis*) and yellow willow (*Salix lutea*).

North Fork of Mill Creek

Upland Vegetation

The North Fork of Mill Creek project area contains many native vegetation species. It is located in a South Slope 12-16" P.Z. and a Loamy Slope 14+" P.Z. Upland species identified during the site visits included sagebrush, western wheatgrass (*Pascopyrum smithii*), Quaking Aspen (*Populus tremuloidies*) Utah Serviceberry (*Amalanchier utahensis*) and rabbitbrush. Other upland species identified during the BLM survey included, Letterman's Needle Grass (*Achnatherum lettermanii*), Mountain Brome (*Bromus marginatus*), Lupine (Lupinus spp.), bottlebrush squirreltail, spiny phlox, longleaf phlox, basin wildrye (*Leymus cinereus)*, and deathcamas (*Zigadenus sp.*). Aspen stands are only present near the North Fork of Mill Creek portion of the project. The exclosure of a portion of adjacent herbaceous dominated riparian area is not expected to significantly change livestock effects on the aspen stand. The aspen

stand can be seen on the map of the North Fork of Mill Creek Exclosure (Map 2.2.3).

Wetland/Riparian Vegetation

Some of the species identified during 2015 MIM have an Obligate Wetland, or Facultative Wetland status. Wood's rose is listed as a Facultative Upland, which indicates it's primarily found in upland habitats but can be found in wetland and riparian areas. In North Fork of Mill Creek, limited Wood's rose is found on the perimeters of wetland and riparian habitats. This species was observed near the stream during the site visit. In addition the following species were recorded: creeping bentgrass (*Agrostis stolonifera*), shortawn foxtail (*Alopecurus aequalis*), smallwing sedge (*Carex microptera*), meadow barley (*Hordeum brachyantherum*), artic rush, toad rush (*Juncus bufonius*) and swordleaf rush (*Juncus ensifolius*).

Environmental Consequences

Proposed Action

Upland Habitats

The proposed action would potentially disturb approximately 60.35 acres (this was calculated by buffering 20 feet around the proposed fencelines, including the exclosures and lay down areas) of upland and wetland/riparian vegetation. The majority of the disturbance would occur within the temporary disturbance associated with construction activity. Short term disturbance would occur as a result of overland travel, site work, and installation of the fencing. These impacts are expected to be small, where construction crews would be working. These short-term impacts would be minimized and mitigated by having construction crews use areas that are not vegetated to reduce overall disturbance, and seeding of areas impacted by these activities to re-establish vegetation. Due to the relatively small surface area disturbed by the installation of the proposed project it is proposed that revegetation of the disturbed area would consist of hand seeding and hand raking. The seed mixture and time of year proposed for the reseeding would be approved by the BLM.

Long-term disturbance would result from trampling of vegetation due to increased trailing along the fence lines by livestock. These impacts are typically small and would be further mitigated by placing most of the fence lines along existing roads, loafing areas or traversing steeper slopes where disturbances already exist or livestock typically avoid. The area inside the exclosure that would benefit from removal of livestock use would be larger than any areas negatively impacted due to trailing along fence lines. The placement of the fencing around the streams would limit activity in these areas as long as the fencing remains.

Wetland/Riparian Habitats

Existing riparian vegetation is limited in the vicinity of the streams due to trampling of soils and utilization of vegetation by livestock. During construction, some vegetation would be impacted by installation of the fencing, but due to past livestock activity this will result in minimal impact because workers will stay on previously disturbed ground to the extent possible. The installation of the exclusionary fence would be to prevent livestock from accessing each stream segment. This would allow native riparian and wetland vegetation, as well as upland vegetation on the spring fringes, to re-establish and reach its potential. Riparian vegetation is expected to improve over time as a result of restricting livestock access to the stream segments. As vegetation growth recovers around the stream segments, evapotranspiration could increase through greater surface area and increased plant vegetation. However, as vegetation stabilizes the soils, water would travel through the system much more slowly (subsurface vs. overland), increasing the amount of water being stored in the soils. Over time, this would expand the extent of the riparian area and increase the frequency and composition of riparian vegetation. The project would not remove the current road impacts to the adjacent spring and at the stream crossing, but the removal of livestock impacts from the adjacent spring would result in a net gain for the stream health. With proper management practices on degraded riparian vegetation, succession would start and the riparian system would begin to function properly and the benefits would begin to reappear (Elmore and Breschhta 1987).

No Action Alternative

Under the No Action Alternative vegetation degradation around the stream segments from livestock trampling and utilization would continue. Current vegetation trends would continue. Although the 4 inch stubble height trigger would remain under the terms of the settlement agreement, the No Action Alternative would result in a more limited opportunity for riparian vegetation to recover as compared to the proposed action.

3.12 Visual Resources

Affected Environment

Scenic quality is a measurement of visual appeal of a parcel of land. Section 102(a) of FLPMA cited importance on the protection of the quality of the scenic resources on public lands. Section 101(b) of NEPA of 1969 required that measurements to be taken to ensure that aesthetically pleasing surroundings be retained for all Americans. To ensure that these objectives are met, the BLM devised the Visual Resource Management (VRM) System. The VRM system provides a means to

identify visual values, establish objectives for managing these values, and provide information to evaluate the visual effects of proposed projects. The inventory of visual values combines evaluations of scenic quality, sensitive levels, and distance zones to establish visual resource inventory classes, which are "informal in nature and provide basis for considering visual values in the land use planning process. They do not establish management direction and should not be used as a basis for constraining or limiting surface disturbing activities" (BLM 1986). VRM classes are typically assigned to public land units through the BLM's land use planning process. One of four VRM classes is assigned to each unit of public lands. The specific objectives of each VRM class are presented in Table 3.12. The project area lies completely within Class IV management areas.

Table 3.12 BLM Visual Resources Management Classes Description

Class	Description
I	The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.
II	The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any change must repeat the basis element of form, line, color, and texture found in the predominate natural features of the characteristic landscape.
III	The objective of this class is partially retaining the existing character of the landscape. The level of change of character should be moderate. Management activities may attract attention, but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. Management activities may dominate the view and be the major focus of the viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.
Source: BLM 1986	

Environmental Consequences

Proposed Action

The exclosures would only have a small impact to the landscape due to their low profile and remote location. Fencing off the riparian area would likely increase the health and vitality of the area from the decreased disturbance to the landscape from livestock. These changes to the landscape would lead to a more visually appealing area from the reestablishment of native vegetation.

No Action

Under the No Action Alternative, the BLM would not approve the proposed action. The project area could continue its downward trend from livestock grazing impacts.

Continued degradation would lead to further soil erosion from the inability of plant communities to stabilize the stream banks. This continued degradation to the streams would lead to reduced visual resources within the area.

3.13 Wildlife

Regulatory Framework

Wildlife and fish resources and their habitat on public lands are managed cooperatively by the BLM and the Nevada Department of Wildlife (NDOW) under a Memorandum of Understanding (MOU) as established in 1971. The MOU describes the BLM's commitment to manage wildlife and fisheries resource habitat, and NDOW's role in managing populations. The ecological definition of population is a group of organisms of one species that interbreed and live in the same place at the same time. The BLM meets its obligations by managing public lands to protect and enhance food, shelter, and breeding areas for wild animals. The NDOW assures healthy wildlife numbers through a variety of management tools including wildlife and fisheries stocking programs, hunting and fishing regulations, land purchases for wildlife management, cooperative enhancement projects, and other activities.

“Migratory bird” means any bird listed in 50 CFR § 10.13. All native birds commonly found in the U.S., with the exception of native resident game birds, are protected under the Migratory Bird Treaty Act (MBTA). The MBTA prohibits the taking of migratory birds, their parts, nests, eggs, and nestlings without a permit. Executive Order 13186, signed January 10, 2001, directs federal agencies to protect migratory birds by integrating bird conservation principles, measures and practices.

The Bald and Golden Eagle Protection Act (BGEPA) of 1940, as amended, prohibits the "take" or possession of bald and golden eagles with limited exceptions. Take, as defined in the BGEPA, includes, “to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” Disturb means, “to agitate or bother a bald or golden eagle to a degree that causes or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding or sheltering behavior.”

Additional direction comes from the MOU between the BLM and the United States Fish and Wildlife Service (USFWS), signed January 17, 2010. The purpose of this MOU is to strengthen migratory bird conservation through enhanced collaboration between the BLM and the USFWS, in coordination with state, tribal, and local governments. The USFWS’ MOU with the BLM states, in part, that both parties shall, as practicable, protect, restore, and conserve habitat of migratory birds; follow the USFWS Bald Eagle Management Guidelines; follow other migratory bird conservation measures as appropriate and consistent with agency missions; work collaboratively to identify and address issues that affect species of concern; promote and contribute migratory bird population and habitat

data to interagency partnership databases (BLM, 2010). The MOU also commits the BLM to, among other measures, participate in planning efforts of Bird Conservation Regions and, at the project level, evaluate the effects of the BLM's actions on migratory birds during the NEPA process (BLM, 2010).

Special Status Species
The BLM's policy for management of special status species (SSS) is in the BLM Manual Section 6840 (BLM 2008b). Special status species include the following:

- Federally Threatened or Endangered Species: Any species the USFWS has listed as an endangered or threatened species under the Endangered Species Act of 1973, as amended (ESA) throughout all or a significant portion of its range;

- Proposed Threatened or Endangered Species: Any species the USFWS has proposed for listing as a federally endangered or threatened species under the ESA;

- Candidate Species: Plant and animal taxa under consideration for possible listing as threatened or endangered under the ESA;

- Delisted Species: Any species in the five years following their delisting;

- BLM Sensitive Species: Native species found on BLM-administered lands for which the BLM has the capability to significantly affect the conservation status of the species through management, and either: 1) there is information that a species has undergone, is undergoing, or is predicted to undergo a downward trend such that the viability of the species or a distinct population segment of the species is at risk across all or a significant portion of the species range; or 2) the species depends on ecological refugia or specialized or unique habitats on BLM-administered lands, and there is evidence that such areas are threatened with alteration such that the continued viability of the species in that area would be at risk (BLM 2008b); and

- State of Nevada Listed Species: State-protected animals that have been determined to meet BLM's Manual 6840 policy definition.

Affected Environment

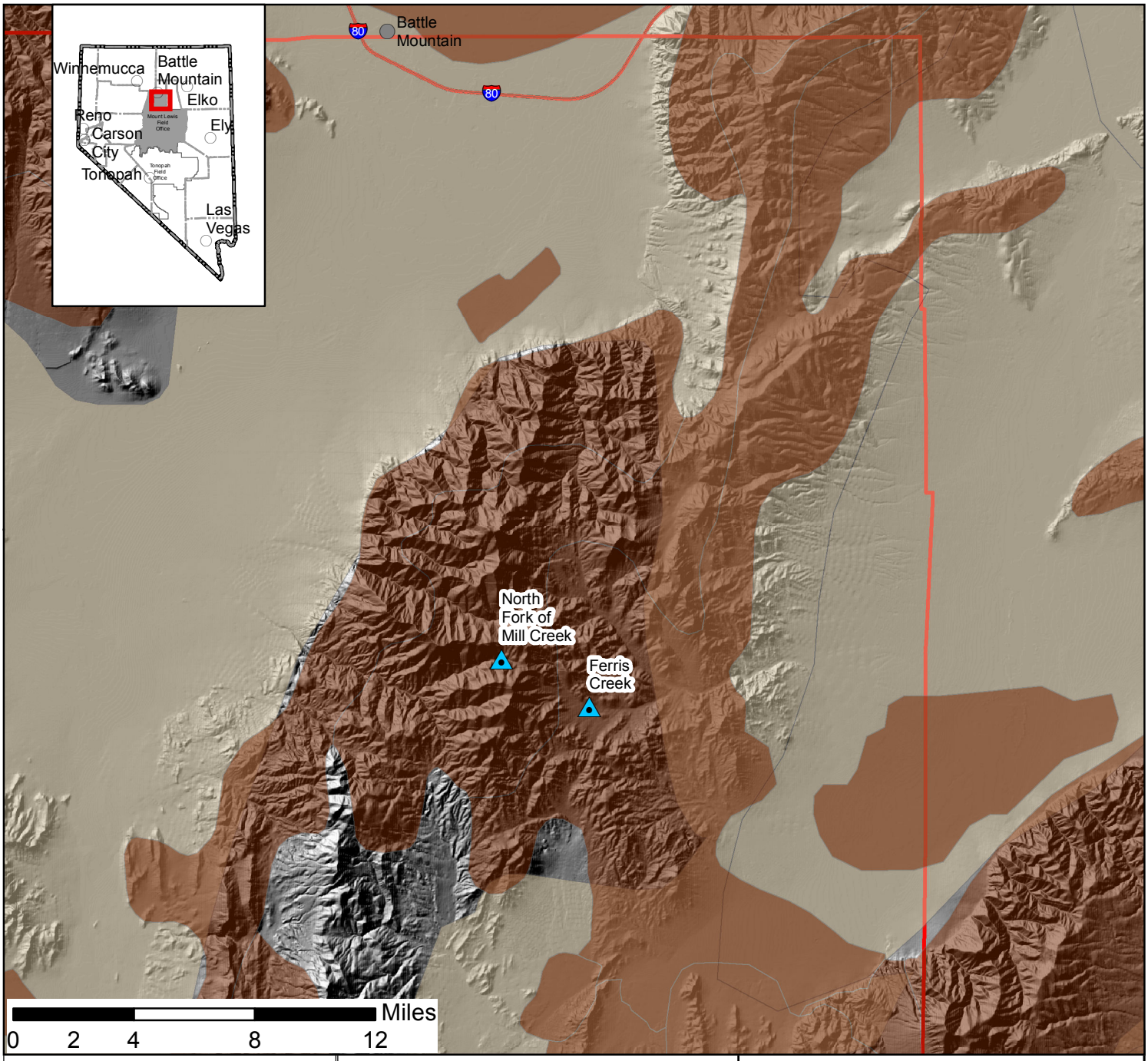
Greater Sage-Grouse
Greater Sage-Grouse, an upland game bird, is largely dependent on sagebrush for nesting and brood rearing and feed almost exclusively on sagebrush leaves during the winter. GRSG are found in 11 western states and two Canadian provinces. In Nevada, the GRSG habitat includes sagebrush, montane shrubland, and wet meadow. The greatest threats to the GRSG in Nevada are loss of habitat due to fire and piñon-juniper encroachment and a decline in habitat quality due to invasive plants and inadequate grazing management

systems, which can particularly impact brood-rearing meadows (GBBO 2010). In 2010, the population in Nevada was estimated to be between 68,000 and 88,000, which represented approximately 50 percent of the global population (GBBO 2010). In 2014, the BLM closed the Argenta Allotment, located in GRSG Hunt Unit 152, due to the detrimental effects of overgrazing during the drought. The hunt unit that encompasses the Argenta Allotment has been closed to GRSG hunting and remains closed due to GRSG population decline and poor habitat condition (NDOW 2015). GRSG have specific habitat requirements to carry out their life cycle functions. Greater Sage-Grouse breeding habitats are defined as those where lek attendance, nesting, and early brood-rearing occur (Connelly et al. 2004).

In September 2015, the BLM issued the Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and southwestern Montana, Nevada and Northeastern California, Oregon, and Utah, which details the GRSG habitat management plan for Nevada (2015 ROD) (BLM 2015). This document and associated mapping identifies the following four habitat management categories for GRSG:

- Sage Brush Focal Areas (SFA)
- Priority Habitat Management Areas (PHMA);
- General Habitat Management Areas (GHMA);
- Other Habitat Management Areas (OHMA)

The Management Decisions and Required Design Features (RDFs) from the GRSG ARMPA for this project, located in section 1.3 of this EA, will be implemented to protect GRSG and enhance GRSG habitat. Both exclosures are located in PHMA.



Project

Battle Mountain

Mule Deer Habitat

Pronghorn Habitat

Field Office Boundary

Mount Lewis Field Office

Major Road

Interstate

May 17, 2016

United States Department of the Interior
Bureau of Land Management
Battle Mountain District Office
Mount Lewis Field Office
50 Bastian Road
Battle Mountain, NV 89820

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BUREAU OF LAND MANAGEMENT

Argenta Settlement Agreement
Environmental Assessment

Mule Deer and Pronghorn Habitat

Ferris Creek

A desktop analysis was performed to identify wildlife and its habitat that have the potential to exist within the Ferris Creek portion of the project area. Digital data were analyzed in GIS (ArcMap10.3) and included wildlife data provided by NDOW, the NNHP, and the USFWS IPAC. Field observations made by BLM wildlife biologists and range management specialists are also included in this analysis when available.

Special Status Species

Greater Sage-Grouse

The proposed Ferris Creek Exclosure comprises approximately 21.29 acres of PHMA (Map 2.2.3). NDOW GIS data identifies the project site as year-round habitat for GRSG.

There are no active leks within four miles of the site. There are two leks within four miles of the site to the southwest that are designated as pending active: Utah Mine Camp 2 (1.67 miles away) and Utah Mine Camp 3 (2.32 miles away). The Utah Mine Camp 2 lek was last surveyed by NDOW in 2014 and had a maximum of twelve males in attendance. The Utah Mine Camp 3 lek was last surveyed by NDOW in 2014 and had a maximum of three males in attendance. This complies with the USGS lek buffer distance for fences identified in the ARMPA which is 1.2 miles.

Pygmy Rabbit

Suitable pygmy rabbit habitat consists of areas with mature big sagebrush, drainages, sagebrush draws, patches of sagebrush that appear uneven in both height and density, and areas with friable soil that allows for burrowing.

Suitable pygmy rabbit habitat is not present in the Ferris Creek site. Where there is loamy soil suitable for burrowing, the sagebrush community lacks the necessary height and density and the remainder of the exclosure contains claypan soils unsuitable for burrowing (USDS ESD Loamy Bottom 8-14” P.Z., Claypan 10-12” P.Z., Loamy 8-10” P.Z.). No pygmy rabbits, sign, or suitable habitat was observed during field visits by BLM wildlife and range specialists.

Bats

Suitable foraging habitats for bats may be available in the proposed Ferris Creek Exclosure. Riparian areas can attract foraging and drinking bats from a considerable distance. Roosting habitat may be found in the poplar trees adjacent to the proposed exclosure. It is also possible for bats to temporarily roost in sagebrush at night and to forage over sagebrush. Species that have the potential to occur on this portion of the project area

include little brown bat, long-eared myotis, small-footed myotis, western pipistrelle, California myotis, fringed myotis, big free-tailed bat, and Brazilian free-tailed bat.

Migratory Birds

The riparian and sagebrush habitats in the area of the proposed Ferris Creek Exclosure have the potential to serve as suitable habitat for many migratory bird species. The poplar trees in the riparian area could serve as suitable nesting habitat for raptors such as red-tailed hawk (*Buteo jamaicensis*) and kestrel (*Falco sparverius*) and foraging habitat for species such as acorn woodpecker (*Melanerpes formicivorus*). The sagebrush habitat within and adjacent to the proposed Ferris Creek Exclosure has the potential to serve as suitable nesting and foraging habitat for migratory bird species such as western scrub jay (*Aphelocoma californica*), black-billed magpie (*Pica hudsonia*), and various sparrow species (*Amphispiza* and *Spizella).*

General Wildlife

The riparian and sagebrush habitats within and adjacent to the proposed Ferris Creek Exclosure have the potential to serve as habitat for many wildlife species, including desert cottontail mourning dove (*Zenaida macroura*), and other small game species. The site and surrounding area are identified as winter range habitat for mule deer. The proposed Ferris Creek Exclosure does not include habitat for pronghorn antelope. GRSG and chukar were directly observed by BLM wildlife and rangeland specialists during rangeland monitoring visits.

North Fork of Mill Creek

A desktop analysis was performed to identify wildlife and its habitat that have the potential to exist within the North Fork of Mill Creek portion of the project area. Digital data were analyzed in GIS (ArcMap10.3) and included wildlife data provided by NDOW, the Nevada Natural Heritage Program (NNHP), and the USFWS IPAC. Field observations made by BLM wildlife biologists and range management specialists are also included when available.

Special Status Species

Greater Sage-Grouse

The North Fork of Mill Creek Exclosure comprises approximately 8.4 acres of PHMA (Map 3.13). NDOW GIS data identifies the project as late summer and winter habitat for GRSG.
There are no active leks within four miles of the project site. There are two leks within four miles of the North Fork portion of the project area that are designated as pending active: Utah Mine Camp 2 (3.77 miles to the southeast of the site) and Indian Box Spring (3.73 miles to the northeast of the site). The Utah Mine

Camp 2 lek was last surveyed by NDOW in 2014 and had a maximum of twelve males in attendance. The Indian Box Spring lek was last surveyed by NDOW in 2014 and had a maximum of fifteen males in attendance. This complies with the USGS lek buffer distance for fences identified in the ARMPA which is 1.2 miles.

Pygmy Rabbit

Suitable pygmy rabbit habitat consists of areas with mature big sagebrush, drainages, sagebrush draws, patches of sagebrush that appear uneven in both height and density, and areas with friable soil that allows for burrowing.

Suitable pygmy rabbit habitat is not present in the North Fork of Mill Creek portion of the project area. The sagebrush community lacks the necessary height and density for pygmy rabbits (USDA ESD Loamy Slope 14+" P.Z.). No pygmy rabbits, sign, or suitable habitat was observed during field visits by BLM wildlife and range specialists.

Bats

Suitable foraging habitats for bats may be available in the proposed Ferris Creek Exclosure. Riparian areas can attract foraging and drinking bats from a considerable distance. Roosting habitat may be found in the aspen adjacent to the proposed exclosure. It is also possible for bats to temporarily roost in sagebrush at night and to forage over sagebrush. Species that have the potential to occur on this portion of the project area include little brown bat, long-eared myotis, small-footed myotis, western pipistrelle, California myotis, fringed myotis, big free-tailed bat, and Brazilian free-tailed bat.

Migratory Birds

The riparian and sagebrush habitats around the proposed North Fork of Mill Creek Exclosure have the potential to serve as suitable habitat for many migratory bird species. The aspens adjacent to the riparian area could serve as suitable nesting habitat for raptors such as red-tailed hawk and kestrel and foraging habitat for species such as acorn woodpecker. BLM rangeland management specialists have observed an active hawk nest in the aspens. The sagebrush habitat within and adjacent to the proposed North Fork of Mill Creek Exclosure has the potential to serve as suitable nesting and foraging habitat for migratory bird species species such as western scrub jay (Aphelocoma californica), black-billed magpie (Pica hudsonia), and various sparrow species.

General Wildlife

The riparian and sagebrush habitats within and adjacent to the proposed North Fork of Mill Creek Exclosure have the potential to serve as habitat for many wildlife species, including desert cottontail, mourning dove ,and other small game species. The site and surrounding area are identified as winter range habitat for mule deer. The proposed North Fork of Mill Creek Exclosure does not include habitat for pronghorn antelope.

Environmental Consequences

Proposed Action

The proposed action would not result in a net loss of potential sensitive species habitat and is not anticipated to contribute to a loss of viability for any particular sensitive species because the project is aimed at repairing the riparian areas. Although total area exclosed is approximately 51.3 acres, the actual disturbance footprint is less than 0.9 acres total (this was calculated by buffering the fence line by 2 feet). Effects to habitat decrease significantly with the more jackrail pipe fencing used which is not considered a ground disturbing activity.

Special Status Species

Greater Sage-Grouse

Approximately 30 acres of GRSG PHMA would be closed to livestock under the proposed action. Adding new fences can lead to further fragmentation of the landscape and potential habitat loss. The exclosures do not exceed 1.6 miles of fence per section and the construction of the exclosures would protect the riparian areas from further degradation thus enhancing the riparian areas and GRSG habitat over time. Federal Register (FR) 75 page 13,929 explains a few studies where long fences (over 2 miles) can negatively impact sage-grouse. There are no studies or mention in the FR 75 stating exclosures (<1 mile) negatively impact Greater Sage-Grouse. FR 75 page 13,929 directly states “Not all fences present the same mortality risk to GRSG. Mortality risk appears to be dependent on a combination of factors including fence design, landscape topography, and spatial relationship with seasonal habitats” (FR 2010a).

The National Technical Team (NTT) report (2011) states to, “Design any new structural range improvements…to conserve, enhance, or restore sage-grouse habitat.” The statement is reiterated by Objective SSS 1 in the ARMPA. These riparian areas are important brood-rearing habitat for GRSG and these exclosures would restore the riparian vegetation necessary to have healthy riparian habitat. According to Gregg and Crawford (2009), “GRSG chick and brood survival were directly linked to availability of food and cover and in

areas of degraded habitat, active restoration may be necessary to increase availability of herbaceous vegetation and insects."

USFWS defines functional habitat loss as "…physical barriers that preclude use of otherwise suitable areas and activities that prevent animals from using suitable habitat patches due to behavioral avoidance." (FR 75 2010). The proposed exclosures would not create functional habitat loss since they would be designed to allow GRSG to enter riparian areas and springs. Jack rail fencing minimizes collisions and allows GRSG, as well as other wildlife including deer and antelope, safe access to riparian areas inside the exclosures.

A potential direct impact to GRSG from constructing the riparian exclosures is collision risk. Since the exclosures would be constructed within 4 miles of pending active leks, a GRSG Fence Collision Risk Tool (NRCS 2012) was used to model the exclosures to find the potential risk for GRSG collisions. The riparian exclosures would meet the GRSG and wildlife fencing safety specifications in order to avoid collision risks. Adding GRSG fence markers for barbed wire fencing has been shown to reduce collisions by 83% (Stevens 2011). Based upon data from the Stevens study and other widely available covariate data, modeling was used to develop geospatial data that display relative risk of collision around leks (3-km radius). Terrain ruggedness and distance to lek were found to be the most important variables associated with risk. Overlaying this data with planned or existing fence locations will help planners avoid or reduce collision risks in breeding habitats (NRCS 2012). The Fence Collision Risk Tool considers distance to leks as an indicator for collision: the closer the lek to the fence the higher the risk of GRSG collision. The tool has predefined colors (low risk=green, medium risk=yellow, high risk=red) that display automatically when added to ArcMap. In the classified raster data, red = risk of >1 collision per lekking season (NRCS 2012). The proposed North Fork Mill Creek (4.9 km from the nearest lek) Exclosure did not meet the criteria for distance to leks (i.e., was not close enough) so the tool was not used. For the proposed Ferris Creek Exclosure, the area was green which means a low collision risk to GRSG.

Indirect impacts to the GRSG as a result of the proposed action would include possible perches for ravens and raptors species.

The riparian exclosures would be providing improved GRSG brood-rearing habitat (Table 2-2 GRSG ARMPA 2015) thus ensuring successful and healthy populations of GRSG. The exclosures are expected to allow the exclosed areas to return to PFC. By adhering to the design features for GRSG, no significant impacts to GRSG habitat or populations would be expected.

No Action Alternative

Healthy riparian areas and wet meadow vegetation serve a crucial role for GRSG brood-rearing habitat. Specific requirements such as grass height for cover and forb diversity near riparian areas are important for GRSG chick survival (Hagen et al. 2007). Under the No Action Alternative, the stream segments would not have the same opportunity to recover and could continue to decline in health; trampling and hummocking would be slower to recover and in some areas could increase with continued livestock presence, resulting in destroyed riparian vegetation, increased sedimentation, altered stream banks, and more head-cuts. Exclosure fencing is more effective at ensuring riparian utilization levels are not exceeded compared to a 4" stubble height removal trigger.

Pygmy Rabbit

No pygmy rabbit habitat or evidence of pygmy rabbit use was observed during the survey and therefore this species would not be affected by the proposed action.

Bats

Nine sensitive bat species have been confirmed or have the potential to occur within the project area. The proposed disturbance would not result in the disturbance or removal of bat hibernacula or roosting sites. No disturbance to the riparian area within the project area would occur. Healthy riparian areas have the potential to attract foraging and drinking bats from a considerable distance. The project would likely have an overall positive effect on bat habitat. With the riparian areas returning to proper functioning condition, increased insects would be present and improved water quality would be available to foraging bats in the areas.

No Action Alternative

With no exclosures to protect the riparian areas from livestock, the proposed stream segments would not have the same opportunity to recover and could continue to decline in health; trampling and hummocking damage would be slower to recover and in some areas could increase with continued livestock presence resulting in destroyed riparian vegetation, increased sedimentation, altered stream banks, and more head-cuts.

Migratory Birds

Under the proposed action, the project design features would minimize direct impacts to migratory birds. Noise impacts to migratory birds would be temporary in nature, and the overall ambient noise level would not increase beyond existing conditions at the site. By either completely avoiding construction activities during the breeding

season or applying appropriate disturbance buffers if nests are found, it is unlikely the proposed action would adversely impact or result in a decline in local or regional migratory bird populations.

The proposed action would result in minimal disturbance to potential nesting and foraging habitat for migratory bird species. Under the proposed action, the project design features and environmental protection measures for migratory birds would minimize direct impacts to sensitive bird species.

No Action Alternative

With no exclosures to protect the riparian areas from livestock, the proposed stream segments would not have the same opportunity to recover and could continue to decline in health; trampling and hummocking damage would be slower to recover and in some areas could increase with continued livestock presence resulting in destroyed riparian vegetation, increased sedimentation, altered stream banks, and more head-cuts.

General Wildlife

Under the proposed action, the project design features would minimize impacts to general wildlife species, including big game. Both fence designs, jack-rail and barbed wire, would be in conformance with BLM H-1741-1, Fencing Standards Manual (BLM 1990), minimizing potential negative effects to wildlife species that utilize the area and allowing for safe ingress and egress to the water sources. The short lengths and design of the proposed exclosures would not impact or restrict big game and general wildlife movement patterns. The increased noise from fence construction would be temporary and not expected to result in long term effects on big game and wildlife populations.

No Action Alternative

With no exclosures to protect the riparian areas from livestock, the proposed stream segments would not have the same opportunity to recover and could continue to decline in health; trampling and hummocking damage would be slower to recover and in some areas could increase with continued livestock presence resulting in destroyed riparian vegetation, increased sedimentation, altered stream banks, and more head-cuts.

Chapter Four: Cumulative Impact Analysis

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4.1 Introduction

The proposed action has been examined for cumulative effects to the Assessment Area and the surroundings. Cumulative impacts are those effects on resources within an area or region caused by a combination of past, present and reasonable foreseeable future actions (RFFAs). These impacts may be individually minor but added together over time may become significant (40 CFR 1508.7).

There are three separate Cumulative Effects Study Areas (CESA) used by resource specialists to analyze the effects to each resource. The CESA and the Past, Present, and Reasonably Foreseeable Future Actions (RFFAs) are specific to each resource and are therefore discussed in each section.

4.2 Cumulative Impacts Evaluation

4.2.1 Native American Concerns

Past and Present Actions: Past actions that could have resulted in impacts to Native American religious concerns within the CESA include mineral exploration and mining operations, grazing, fuels reduction activities, wildland fire and fire suppression activities, and dispersed recreation.

Present actions that may result in impacts to Native American religious concerns within the CESA are the same as the past actions, including current mineral exploration and development activities being conducted within the CESA.

RFFAs: RFFAs that may result in impacts to Native American religious concerns within the CESA include mineral exploration and mining activities, dispersed recreation, fuel reduction activities, and wildland fire suppression efforts.

Proposed Action

Although the proposed action would create minimal disturbance, there is potential for impacts to Native American religious concerns within the CESA as a result of the past and present actions, and RFFAs when combined with the proposed action. However, cumulative impacts to Native American religious concerns would be limited or negligible due to implementation of BMP's and guidance solicited from the tribes.

4.2.2 Noxious Weeds, Invasive and Non-Native Species

The CESA for noxious weeds, invasive and non-native species are the Maysville South, Fire Creek, and North Fork Use Areas. This CESA encompasses approximately 39,665 acres and is shown on Map 4.2.5.

Past and Present Actions: Past and present actions with impacts created from noxious weeds, invasive and non-native species could have included and may currently include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation. These actions could have disturbed vegetation and soils creating an opportunity for invasive plant colonization and the introduction of noxious weeds, invasive and non-native species seeds. There are no specific data to quantify impacts from noxious weeds, invasive and non-native species that resulted from wildlife habitat management, livestock grazing, or dispersed recreation.

Historic fires (2000–2015) have burned approximately 3,958 acres in the Use Areas CESA (approximately 10% of the CESA). Authorized and expired mineral exploration and Mining Notices and Plans of Operation total approximately 385 acres of surface disturbance. Approximately 468 acres of ROWs were issued within the Use Areas CESA that also had the potential to introduce noxious weeds, invasive and non-native species. The past and present actions that are quantifiable have disturbed approximately 12% of the CESA.

RFFAs: Potential impacts from noxious weeds, invasive and non-native species as a result of wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, dispersed recreation, or loss of native vegetation associated with potential wildland fires are expected to continue. There are no specific data to quantify impacts from noxious weeds, invasive and non-native species as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires.

However, scheduled or active projects could have impacts on the current upcoming project. A Final Decision Issued September 2, 2015 also approved 6 additional spring exclosures in the Argenta Allotment. These projects are either already constructed or awaiting construction, but will exclude approximately 23.0 acres. One of these exclosures is within the CESA in North Fork of Mill Creek (1.73 acres). It is expected to have similar impacts as this project and would be physically connected to this project. This previously authorized lentic exclosure fence would make this project slightly

larger than currently proposed. The key difference between the September 2, 2015 decision and the proposed North Fork of the Mill Creek exclosure is the type of riparian area that the fencing is intended to protect (lentic stream sources vs lotic stream segments).

Additionally, Klondex Mines, has proposed a GRSG habitat restoration project that would consist of an exclosure, stock water developments, head-cut repairs, and a road re-route on Fire Creek adjacent to the Fire Creek Mine to mitigate the effects of mine disturbance on GRSG habitat. The GRSG restoration project would protect approximately 85 acres of riparian habitat from livestock use and vehicle traffic and would restore the stream to PFC.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.09%[1] of the CESA. Quantifiable past and present actions and RFFA disturbance in the Use Areas CESA total approximately 4, 898 acres, which results in an incremental disturbance from the proposed action of approximately 0.7%, although riparian recover within the exclosures could also incrementally reduce risks of noxious weeds, invasive and non-native species spread. Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action. Therefore, based on the above analysis and findings, incremental impacts from noxious weeds, invasive and non-native species as a result of the proposed action, when combined with the impacts from the past and present actions and RFFAs, are expected to be minimal.

No Action Alternative

A total of the quantifiable past and present action and RFFA disturbance within the Use Areas CESA is approximately 4,898 acres, which is an impact to approximately 12% of the CESA. The No Action Alternative would not result in any incremental impacts from construction of exclosure fencing. Impacts from noxious weeds, invasive and non-native species from this alternative, in combination with past and present actions and RFFA disturbance, would be minimal.

[1] In the preliminary EA that was made available for public comment, BLM miscalculated (and overstated) the incremental impacts from the proposed exclosures in its Chapter 4 analysis. Those mathematical errors have been corrected in this EA.

4.2.3 Water Resources and Water Quality

The CESA for Water Resources and Water Quality is the two use areas that the project locations are located in South Maysville, and North Fork Use Areas. This CESA encompasses approximately 39,665 acres and is shown on Map 4.2.5. Fire Creek Use Area consists of 19,317 acres of which 9,596 is BLM administered lands. Maysville South Use Area consists of 15,433 acres of which 7,647 is BLM administered lands. North Fork Use Area consists of 4,915 acres of which 2,148 is BLM administered lands.

Past and Present Actions: Past and present actions with impacts to Water Resources and Water Quality could have included and may currently include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation. These actions have altered stream banks, compacted the soils and modified vegetation around the streams creating an opportunity for water quality to have been altered. There are no specific data to quantify impacts of water quality that resulted from wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation.

Historic fires (2000–2015) have burned approximately 3,958 acres in the CESA (approximately 10% of the CESA). Authorized and closed mineral exploration and Mining Notices and Plans of Operation total approximately 385 acres of surface disturbance. Approximately 468 acres of ROWs were issued within the CESA that also had the potential to changes in water quality. The past and present actions that are quantifiable have disturbed approximately 12% of the CESA.

RFFAs: Potential impacts from changes in water resources and water quality as a result of wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, dispersed recreation, or disturbance due to loss of native vegetation associated with potential wildland fires are expected to continue outside of the exclosures. There are no specific data to quantify impacts of water quality, as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires.

Scheduled or active projects could also have impacts on the current upcoming project. A Final Decision Issued September 2, 2015 also approved 6 additional spring exclosures in the Argenta Allotment. These projects are either already constructed or awaiting construction, but will exclude approximately 23.0 acres. One of these exclosures is within the CESA in North Fork of Mill Creek (1.73 acres). It is expected to have similar impacts as this project and would be physically connected to this project. This previously

authorized lentic exclosure fence would make this project slightly larger than currently proposed. The key difference between the September 2, 2015 decision and the proposed North Fork of the Mill Creek exclosure is the type of riparian area that the fencing is intended to protect (lentic stream sources vs lotic stream segments).

Additionally, Klondex Mines, has proposed a GRSG habitat restoration project that would consist of an exclosure, stock water developments, head-cut repairs, and a road re-route on Fire Creek adjacent to the Fire Creek Mine to mitigate the effects of mine disturbance on GRSG habitat. The GRSG habitat restoration project would protect approximately 85 acres of riparian habitat from livestock use and vehicle traffic and would restore the stream to PFC.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.09% of the CESA. Quantifiable past and present actions and RFFA disturbance in the CESA total approximately 4,898 acres, which results in an incremental impact of the proposed action of approximately 0.7%. The exclosures would be expected to have an overall positive impact on water resources and water quality as the exclosed riparian areas recover. Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action. Therefore, based on the above analysis and findings, incremental impacts from water resources and water quality as a result of the proposed action, when combined with the impacts of the past and present actions and RFFAs, are expected to be insignificant.

4.2.4 Wetland and Riparian Zones

The CESA for Wetlands and Riparian Zones is the two use areas that the project locations are located in South Maysville, and North Fork Use Areas. This CESA encompasses approximately 39,665 acres and is shown on Map 4.2.5. Fire Creek Use Area consists of 19,316 acres of which 9,596 is BLM administered lands. Maysville South Use Area consists of 15,433 acres of which 7,647 is BLM administered lands. North Fork Use Area consists of 4,915 acres of which 2,148 is BLM administered lands.

Past and Present Actions: Past and present actions with impacts to wetlands and riparian zones could have included and may currently include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation. These actions have altered stream banks, compacted soils and modified vegetation around the streams creating

an opportunity for riparian areas and wetlands to be disturbed. There are no specific data to quantify impacts from vegetative disturbance that resulted from wildlife habitat management, livestock grazing, or dispersed recreation. Qualitative data in the form of PFC assessments have been completed in the past at some of the areas. Ferris Creek was assessed in for PFC in 2005 and was assessed as functional at risk with a downward trend and therefore also would not meet the Standards for Rangeland Health. Portions of the North Fork of Mill Creek within the project area was assessed for PFC in 2005 and was functional at risk with a downward trend and non-functional with a downward trend; therefore also would not meet the Standards for Rangeland Health.

Historic fires (2000–2015) have burned approximately 3,958 acres in the CESA (approximately 10% of the CESA). Authorized and closed mineral exploration and Mining Notices and Plans of Operation total approximately 385 acres of surface disturbance. Approximately 468 acres of ROWs were issued within the CESA that also had the potential to lead to vegetative disturbance. The past and present actions that are quantifiable have disturbed approximately 12% of the CESA.

RFFAs: Potential impacts from riparian and wetland disturbance as a result of wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, dispersed recreation, or disturbance due to loss of native vegetation associated with potential wildland fires are expected to continue outside of the exclosures. There are no specific data to quantify impacts of riparian and wetland disturbances, as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires.

Scheduled or active projects could also have impacts on the current upcoming project. A Final Decision Issued September 2, 2015 also approved 6 additional spring exclosures in the Argenta Allotment. These projects are either already constructed or awaiting construction, but will exclude approximately 23.0 acres. One of these exclosures is within the CESA in North Fork of Mill Creek (1.73 acres). It is expected to have similar impacts as this project and would be physically connected to this project. This previously authorized lentic exclosure fence would make this project slightly larger than currently proposed. The key difference between the September 2, 2015 decision and the proposed North Fork of the Mill Creek exclosure is the type of riparian area that the fencing is intended to protect (lentic stream sources vs lotic stream segments).

Additionally, Klondex Mines, has proposed a GRSG habitat restoration project that would consist of an exclosure, stock water developments, head-cut repairs, and a road re-route on Fire Creek

adjacent to the Fire Creek Mine to mitigate the effects of mine disturbance on GRSG habitat. The GRSG habitat restoration project would protect approximately 85 acres of riparian habitat from livestock use and vehicle traffic and would restore the stream to PFC.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.09% of the CESA. Quantifiable past and present actions and RFFA disturbance in the CESA total approximately 4,898 acres, which results in an incremental impact of the proposed action of approximately 0.7%. There are approximately 66 miles of perennial and ephemeral streams within the CESA. These projects combined with the recently authorized spring exclosures in the allotment total 2.29 miles that would be esclosed, which is 3.5% of the stream/riparian areas within the CESA. These exclosure projects are expected to improve the riparian zones within the exclosed areas. Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action. Therefore, based on the above analysis and findings, incremental impacts from riparian and wetland area disturbance as a result of the proposed action, when combined with the impacts of the past and present actions and RFFAs, are expected to be insignificant.

4.2.5 Grazing Management

The CESA for grazing management is the Argenta Allotment boundary. The CESA encompasses approximately 331,518 acres of which 141,689 acres area BLM administered lands, and is shown in Map 4.2.5. The remaining 189,829 acres of the allotment are private lands including the hilltop community. The private lands include various residential, agricultural, municipal, and commercial developments. BLM does not have records of activities on private lands and cannot estimate the amount of disturbance associated with facilities and improvements on private land.

Past and Present Actions: Past and present actions with impacts to grazing management include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation. These actions create an opportunity for changes in livestock distribution and impacts. There are no specific data to quantify impacts of livestock distribution that resulted from these actions.

Historic fires (2000–2015) have burned approximately 73,772 acres in the CESA (approximately 22% of the CESA). Authorized and expired

mineral exploration and mining notices and Plans of Operation total approximately 7,008 acres of surface disturbance. Approximately 6,427 acres of ROWs were issued within the CESA that also had the potential to modify livestock behavior and impacts. Permanent recreation sites have excluded 80.939 acres within the CESA. The past and present actions that are quantifiable have disturbed approximately 26% of the CESA.

RFFAs: Potential impacts to grazing management as a result of wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, dispersed recreation, or disturbance due to loss of native vegetation associated with potential wildland fires are expected to continue. There are no specific data to quantify impacts to grazing management, as a result of dispersed recreation, wildlife habitat management, or potential wildland fires.

Several scheduled or active projects could have impacts on the grazing management. The Klondex Mine Expansion in the Fire Creek Use Area has the potential to limit access to livestock to additional acreage causing concentration of livestock outside the mine enclosure. Currently the Klondex Mine authorized disturbance is 1,988 acres. The expansion is currently expected to disturb 150 acres within the existing authorized disturbance.

The Mule Canyon Mitigation Project was approved in 2015 but has not been constructed. This project will enclose two springs and have a water development in the Mule Canyon Use Area; the project will exclose 0.14 acres of public land.

The Mule Canyon Spring Mitigation Project Environmental Assessment DOI-BLM-NV-B010-2014-0005-EA Finding of No Significant Impact was signed on 11/4/2014 (BLM 2014).The spring project will exclose two springs, springs ARG-1 and ARG-2, in the Argenta Allotment on public land to meet the mitigation requirement outlined in the Final Mule Canyon Mine EIS (BLM 1996). ARG-1 will be exclosed and developed to provide access to water for livestock. ARG-2 would exclosed to mitigate impacts from increased livestock use of the area. This project will exclose 0.45 acres.

Scheduled or active projects could also have impacts on the current upcoming project. A Final Decision Issued September 2, 2015 also approved 6 additional spring exclosures in the Argenta Allotment. These projects are either already constructed or awaiting construction, but will exclude approximately 23.0 acres. One of these exclosures is within the CESA in North Fork of Mill Creek (1.73 acres). It is expected to have similar impacts as this project and would be physically connected to this project. This previously authorized lentic exclosure fence would make this project slightly

larger than currently proposed. The key difference between the September 2, 2015 decision and the proposed North Fork of the Mill Creek exclosure is the type of riparian area that the fencing is intended to protect (lentic stream sources vs lotic stream segments).

Additionally, Klondex Mines, has proposed a GRSG habitat restoration project that would consist of an exclosure, stock water developments, head-cut repairs, and a road re-route on Fire Creek adjacent to the Fire Creek Mine to mitigate the effects of mine disturbance on GRSG habitat. The GRSG habitat restoration project would protect approximately 85 acres of riparian habitat from livestock use and vehicle traffic and would restore the stream to PFC.

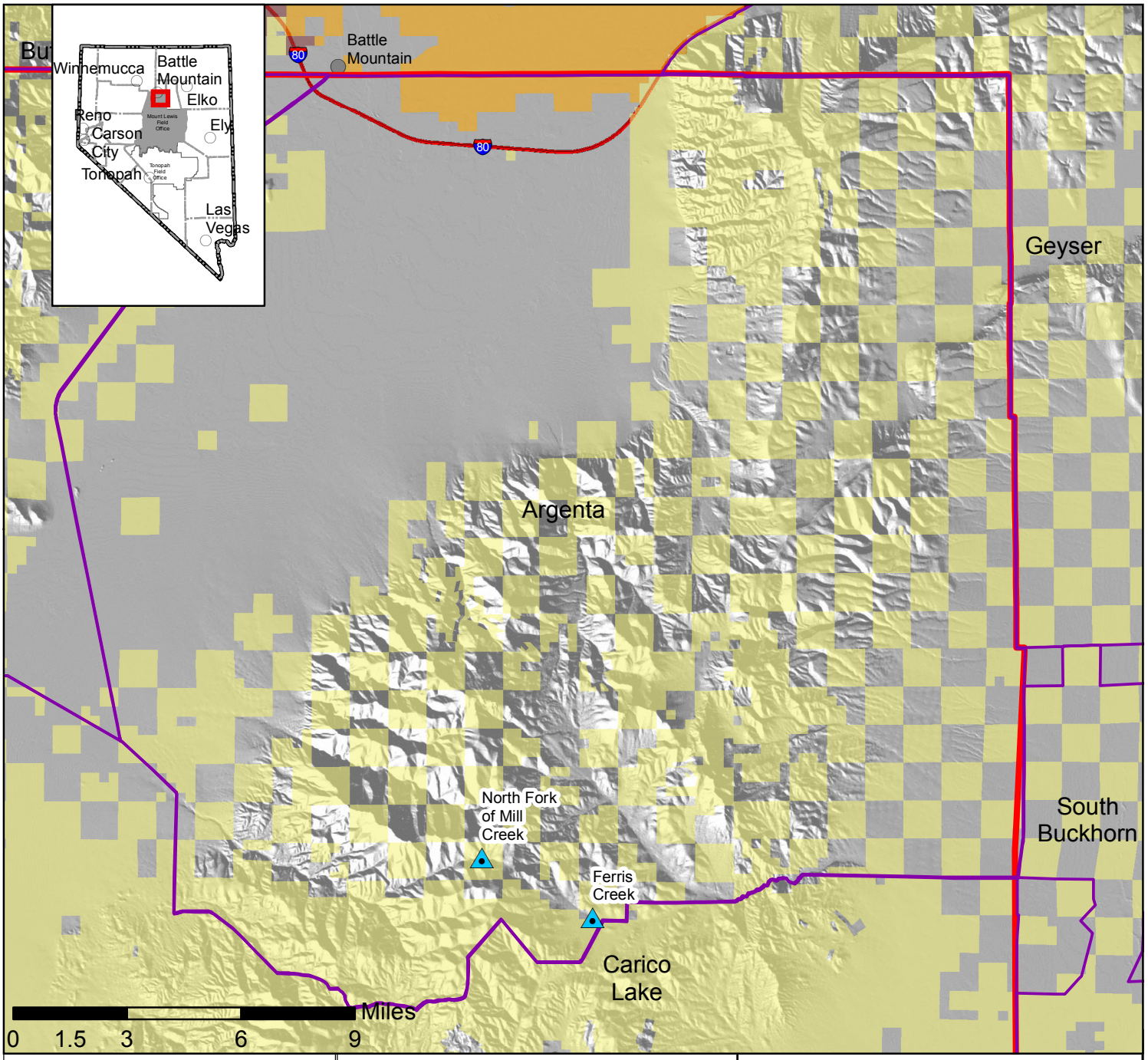
In addition to the exclosures, the Agreement also outlines the timeline for BLM to process and render a decision on an application from the permittees to construct an allotment boundary fence between the Argenta and Carico Lake Allotments. BLM has not yet received that application. The boundary fence, if proposed and approved, would allow for better control of livestock within the Argenta Allotment and prevent livestock drift.

Figure 4.2.6 shows the possible area for fence construction. The fence location, length, and construction details are currently unknown; therefore any assumptions as to such details would be speculative in the absence of an application and concrete proposal.

The Livestock Grazing Permit Renewal process is also scheduled to be completed by the end of Grazing Year 2017; at this time it is not possible to predict what the impacts or outcome of that process will be.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.01 % of the CESA. Quantifiable past and present actions and RFFA disturbance in the CESA total approximately 86,363 acres, which results in an incremental impact of the proposed action of approximately 0.04%. Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action. Therefore, based on the above analysis and findings, incremental impacts from grazing management as a result of the proposed action, when combined with the impacts of the past and present actions and RFFAs, are expected to be insignificant.



Project Areas

Field Office Boundary

Mount Lewis Field Office

Battle Mountain

Bureau of Indian Affairs

Bureau of Land Management

Bureau of Reclamation

Private

Major Road

Interstate

May 17, 2016

N

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Bureau of Land Management
Battle Mountain District Office
Mount Lewis Field Office
50 Bastian Road
Battle Mountain, NV 89820

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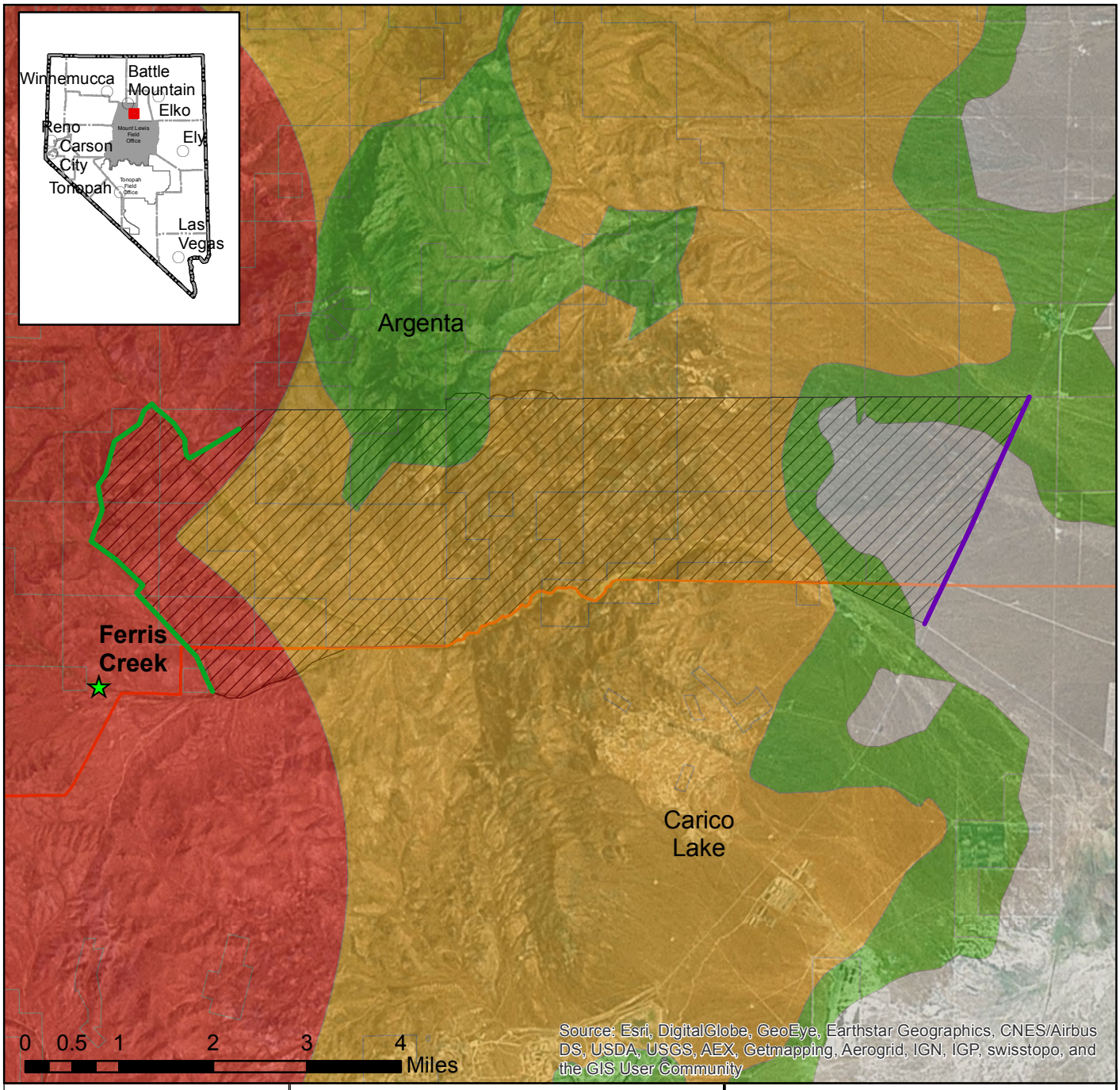
Argenta Settlement Agreement
Environmental Assessment

Grazing Management Cumulative Effects Study Area

Map 4.2.5.1



Proposed Exclosures
Start Point of Fence
End Point of Fence
Priority Habitat Management Area
Other Habitat Management Area
General Habitat Management Area
Non-Habitat
Grazing Allotment
Potential Fence Area

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Argenta Settlement Agreement
Environmental Assessment

Potential Boundary Fence Area and Greater Sage-Grouse Habitat Management Areas from the Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana Nevada and Northeastern California Oregon Utah

4.2.6 Recreation

The CESA encompasses the Maysville South, North Fork, and Fire Creek Use Areas. Recreation which occurs within the CESA is minimal. Overall, the Project Area is relatively isolated and undeveloped. Dispersed recreation may occur throughout the CESA.

Past and Present Action: Past and present actions effecting recreation may include activities such as mineral exploration and mining, ranching operations, wildlife use, wildfires, travel management, or an overall increased interest in the area from the public or prospecting individuals. These activities could impede recreation within the CESA through overland travel, reduced solitude, or decreased acreage through land development for recreation opportunities. There are no data on recreational use within the CESA, so quantifiable analysis cannot be applied.

Authorized and closed mineral exploration and Mining Notices and Plans of Operation total approximately 385 acres of surface disturbance. Wildfires in the past 15 years have burned approximately 3,958 acres within the CESA. The CESA also incorporates livestock grazing and provides habitat for wildlife. Generally, increases in travel through the area from dispersed recreation or land development could have temporary effects to recreation. These disturbances would be minimal and short-term if they do occur. The proposed action to increase the health and vitality of riparian areas would increase the appeal of the area through the reestablishment of native vegetation and possible increase in wildlife populations. These benefits would be beneficial to recreation within the area allowing for better hunting opportunities and improved aesthetics to the landscape.

RFFAs: Possible future effects to recreation throughout the CESA from mineral exploration and mining, ranching operations, wildlife use, wildfires, travel management, or an overall increased interest in the area from the public or prospecting individuals may continue. If potential future activities do impact recreation, they would be mitigated through the proper channels of the BLM. There are no data on recreational use within the CESA, so quantifiable analysis cannot be applied.

The Fire Creek Project, operated by Klondex Mines, is the largest commercial operation in the CESA. Klondex Mines is currently operating active gold mines and should be considered for future impacts to recreation within the CESA. Additionally, roads may also be constructed through mining operations, which ultimately would lead to greater access to the CESA from the recreating public. All

impacts to recreation would be analyzed in any future actions within the CESA.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.09% of the CESA. Quantifiable past and present actions and RFFA disturbance in the CESA total approximately 4,898 acres, which results in an incremental impact of the proposed action of approximately 0.7%.

Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action. Therefore, based on the above analysis and findings, incremental impacts towards recreation as a result of the proposed action, when combined with the impacts of the past and present actions and RFFAs, are expected to be negligible.

4.2.7 Soils

The CESA for soils is comprised of the two use areas that the project areas are located in. They are the South Maysville, and North Fork Use Areas. It encompasses approximately 39,665 acres and is shown on Map 4.2.5. Fire Creek Use Area consists of 19,317 acres of which 9,596 is BLM administered lands. Maysville South Use Area consists of 15,433 acres of which 7,647 is BLM administered lands. North Fork Use Area consists of 4,915 acres of which 2,148 is BLM administered lands.

Past and Present Actions: Past and present actions with impacts to soils include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation. These actions could have disturbed soils creating an opportunity for erosion and compaction of soils. There are no specific data to quantify impacts of soil erosion and compaction that resulted from these actions.

Historic fires (2000–2015) have burned approximately 3,958 acres in the CESA (approximately 10% of the CESA). Authorized and expired mineral exploration and mining notices and Plans of Operation total approximately 385 acres of surface disturbance. Approximately 468 acres of ROWs were issued within the CESA that also had the potential to lead to erosion and compaction of soils. The past and present actions that are quantifiable have disturbed approximately 12% of the CESA.

RFFAs: Potential impacts from soil disturbance as a result of wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, dispersed recreation, or disturbance due to loss of native vegetation associated with potential wildland fires are expected to continue. There are no specific data to quantify impacts of soil disturbance, as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires.

Several scheduled or active projects could have impacts on the soil. The Klondex Mine Expansion in the Fire Creek Use Area has the potential to limit access to livestock to additional acreage causing concentration of livestock outside the mine enclosure. Currently the Klondex Mine authorized disturbance is 1,988 acres. The expansion is currently expected to disturb 150 acres within the existing authorized disturbance.

Scheduled or active projects could also have impacts on the current upcoming project. A Final Decision Issued September 2, 2015 also approved 6 additional spring exclosures in the Argenta Allotment. These projects are either already constructed or awaiting construction, but will exclude approximately 23.0 acres. One of these exclosures is within the CESA in North Fork of Mill Creek (1.73 acres). It is expected to have similar impacts as this project and would be physically connected to this project. This previously authorized lentic exclosure fence would make this project slightly larger than currently proposed. The key difference between the September 2, 2015 decision and the proposed North Fork of the Mill Creek exclosure is the type of riparian area that the fencing is intended to protect (lentic stream sources vs lotic stream segments).

Additionally, Klondex Mines, has proposed a GRSG habitat restoration project that would consist of an exclosure, stock water developments, head-cut repairs, and a road re-route on Fire Creek adjacent to the Fire Creek Mine to mitigate the effects of mine disturbance on GRSG habitat. The GRSG habitat restoration project would protect approximately 85 acres of riparian habitat from livestock use and vehicle traffic and would restore the stream to PFC.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.09% of the CESA. Quantifiable past and present actions and RFFA disturbance in the CESA total approximately 6,886 acres, which results in an incremental impact of the proposed action of approximately 0.5%. Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action.

Therefore, based on the above analysis and findings, incremental impacts to soils as a result of the proposed action, when combined with the impacts of the past and present actions and RFFAs, are expected to be insignificant.

4.2.8 Vegetation

The CESA for vegetation is comprised of the three use areas that the projects are located in. They are the Fire Creek, South Maysville, and North Fork Use Areas. This CESA encompasses approximately 39,665 acres and is shown on Map 4.2.5. Fire Creek Use Area consists of 19,317 acres of which 9,596 is BLM administered lands. Maysville South Use Area consists of 15,433 acres of which 7,647 is BLM administered lands. North Fork Use Area consists of 4,915 acres of which 2,148 is BLM administered lands.

Past and Present Actions: Past and present actions with impacts to vegetation include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation. These actions could have disturbed vegetation creating an opportunity to lead to changes in vegetative composition, or plant community succession. There are no specific data to quantify changes in vegetation that resulted from these actions.

Historic fires (2000–2015) have burned approximately 3,958 acres in the CESA (approximately 10% of the CESA). Authorized and expired mineral exploration and mining notices and Plans of Operation total approximately 385 acres of surface disturbance. Approximately 468 acres of ROWs were issued within the CESA that also had the potential to lead to vegetative disturbance. The past and present actions that are quantifiable have disturbed approximately 12% of the CESA.

RFFAs: Potential impacts to vegetation as a result of wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, dispersed recreation, or disturbance due to loss of native vegetation associated with potential wildland fires are expected to continue. There are no specific data to quantify impacts to vegetation as a result of dispersed recreation, wildlife habitat management, or potential wildland fires.

Several scheduled or active projects could have impacts on the vegetation. The Klondex Mine Expansion in the Fire Creek Use Area has the potential to limit access to livestock to additional acreage causing concentration of livestock outside the mine enclosure impacting vegetation. Currently the Klondex Mine authorized

disturbance is 1,988 acres. The expansion is currently expected to disturb 150 acres within the existing authorized disturbance.

Scheduled or active projects could also have impacts on the current upcoming project. A Final Decision Issued September 2, 2015 also approved 6 additional spring exclosures in the Argenta Allotment. These projects are either already constructed or awaiting construction, but will exclude approximately 23.0 acres. One of these exclosures is within the CESA in North Fork of Mill Creek (1.73 acres). It is expected to have similar impacts as this project and would be physically connected to this project. This previously authorized lentic exclosure fence would make this project slightly larger than currently proposed. The key difference between the September 2, 2015 decision and the proposed North Fork of the Mill Creek exclosure is the type of riparian area that the fencing is intended to protect (lentic stream sources vs lotic stream segments).

Additionally, Klondex Mines, has proposed a GRSG habitat restoration project that would consist of an exclosure, stock water developments, head-cut repairs, and a road re-route on Fire Creek adjacent to the Fire Creek Mine to mitigate the effects of mine disturbance on GRSG habitat. The GRSG habitat restoration project would protect approximately 85 acres of riparian habitat from livestock use and vehicle traffic and would restore the stream to PFC.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.09% of the CESA. Quantifiable past and present actions and RFFA disturbance in the CESA total approximately 6,886 acres, which results in an incremental impact of the proposed action of approximately 0.5%. Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action. Therefore, based on the above analysis and findings, incremental impacts from vegetative disturbance as a result of the proposed action, when combined with the impacts of the past and present actions and RFFAs, are expected to be insignificant.

4.2.9 Wildlife

The Wildlife CESA represents the immediate area of the Shoshone Mountain Range in which the project area is located, bounded by major roads and drainages thereby representing the use area for wildlife species. The Wildlife CESA measures 257,588 acres and is shown on Map 4.2.9. This section addresses Migratory Birds, General Wildlife, and Special Status Wildlife species.

Past and Present Actions: Past and present actions that could have impacted and may be currently impacting migratory birds, special status wildlife, and general wildlife and their habitat include livestock grazing, wildlife and game habitat management, wildland fires, dispersed recreation, utility and other ROW construction and maintenance, mineral exploration, and mining. Impacts to these resources and their habitat have resulted from the following: 1) indirect impacts for the destruction of habitat associated with building roads and clearing vegetation; 2) indirect impacts from disruption of migratory bird habitat from human presence or noise from mining or other heavy equipment, water trucks, and four-wheel drive pickups; and 3) direct impacts or harm to migratory birds that result from the removal of trees and shrubs containing viable nests or ground nests destroyed by construction or ranching equipment. Impacts to habitat from grazing include trampling of vegetation or nesting areas near streams, springs, or riparian areas within the CESA. Impacts to habitat from recreation activities include destruction of native vegetation or nesting areas from off-road vehicles that traveled off established roadways.

Historic fires (1994–2014) have burned approximately 55,292 acres in the Use Areas CESA (approximately 21% of the CESA). Authorized and expired mineral exploration and Mining Notices and Plans of Operation total approximately 20,641 acres of surface disturbance. Approximately 18,276 acres of ROWs were issued within the CESA that also had the potential to impact wildlife species and their habitat. The past and present actions that are quantifiable have disturbed approximately 37% of the CESA.

Non-quantifiable past and present activities include dispersed recreation, livestock grazing and associated management that may create noise and disturbance to habitat. In addition, these activities could have impacted wildlife species and their habitat.

RFFAs: Potential impacts to migratory birds and wildlife species and their habitat from livestock grazing, wildlife and game habitat management, dispersed recreation, mineral exploration, mining, or loss of native vegetation associated with potential wildland fires could occur. There are no specific data to quantify impacts to migratory birds and wildlife or their habitat as a result of livestock grazing, wildlife and game habitat management, dispersed recreation, or potential wildland fires within the CESAs. Currently, a total of approximately 3,179 acres of mineral activities (including approximately 4.99 acres associated with Klondex's South Exploration Notice), 188 acres of disturbance for Fire Creek Mine and approximately 0.3 acres of ROW projects are proposed within the CESA. These pending projects are all required to incorporate protection measures for migratory birds and likely to have protection measures for sensitive wildlife species and, therefore are not

expected to directly harm migratory birds or sensitive wildlife species but may result in habitat removal or alteration.

Scheduled or active projects could also have impacts on the current upcoming project. A Final Decision Issued September 2, 2015 also approved 6 additional spring exclosures in the Argenta Allotment. These projects are either already constructed or awaiting construction, but will exclude approximately 23.0 acres. One of these exclosures is within the CESA in North Fork of Mill Creek (1.73 acres). It is expected to have similar impacts as this project and would be physically connected to this project. This previously authorized lentic exclosure fence would make this project slightly larger than currently proposed. The key difference between the September 2, 2015 decision and the proposed North Fork of the Mill Creek exclosure is the type of riparian area that the fencing is intended to protect (lentic stream sources vs lotic stream segments).

Additionally, Klondex Mines, has proposed a GRSG habitat restoration project that would consist of an exclosure, stock water developments, head-cut repairs, and a road re-route on Fire Creek adjacent to the Fire Creek Mine to mitigate the effects of mine disturbance on GRSG habitat. The GRSG habitat restoration project would protect approximately 85 acres of riparian habitat from livestock use and vehicle traffic and would restore the stream to PFC.

Cumulative Impacts: The proposed action would impact up to approximately 34.6 acres of habitat. When added to the past, present, and RFFA disturbance acres, the cumulative total is 97,698 acres (representing 38% of the CESA). Based on the above analysis and findings, incremental cumulative impacts to migratory birds, special status wildlife species, and general wildlife as a result of the proposed action would represent disturbance to an incremental disturbance of 0.04% within the CESA. Cumulative indirect effects would primarily be a result in human presence and disturbance during the construction phase of the proposed action, as wildlife may be displaced by activities, but would likely shift spatially into adjacent available habitat. There is similar habitat within and adjacent to the project area where mobile wildlife could relocate. The existing operations at Fire Creek Mine serve as baseline conditions for indirect effects and when added cumulatively to other activities within the CESA would be considered incremental and temporary in nature. Environmental protection measures incorporated into the proposed action and concurrent associated with project activities would lessen the potential impacts.

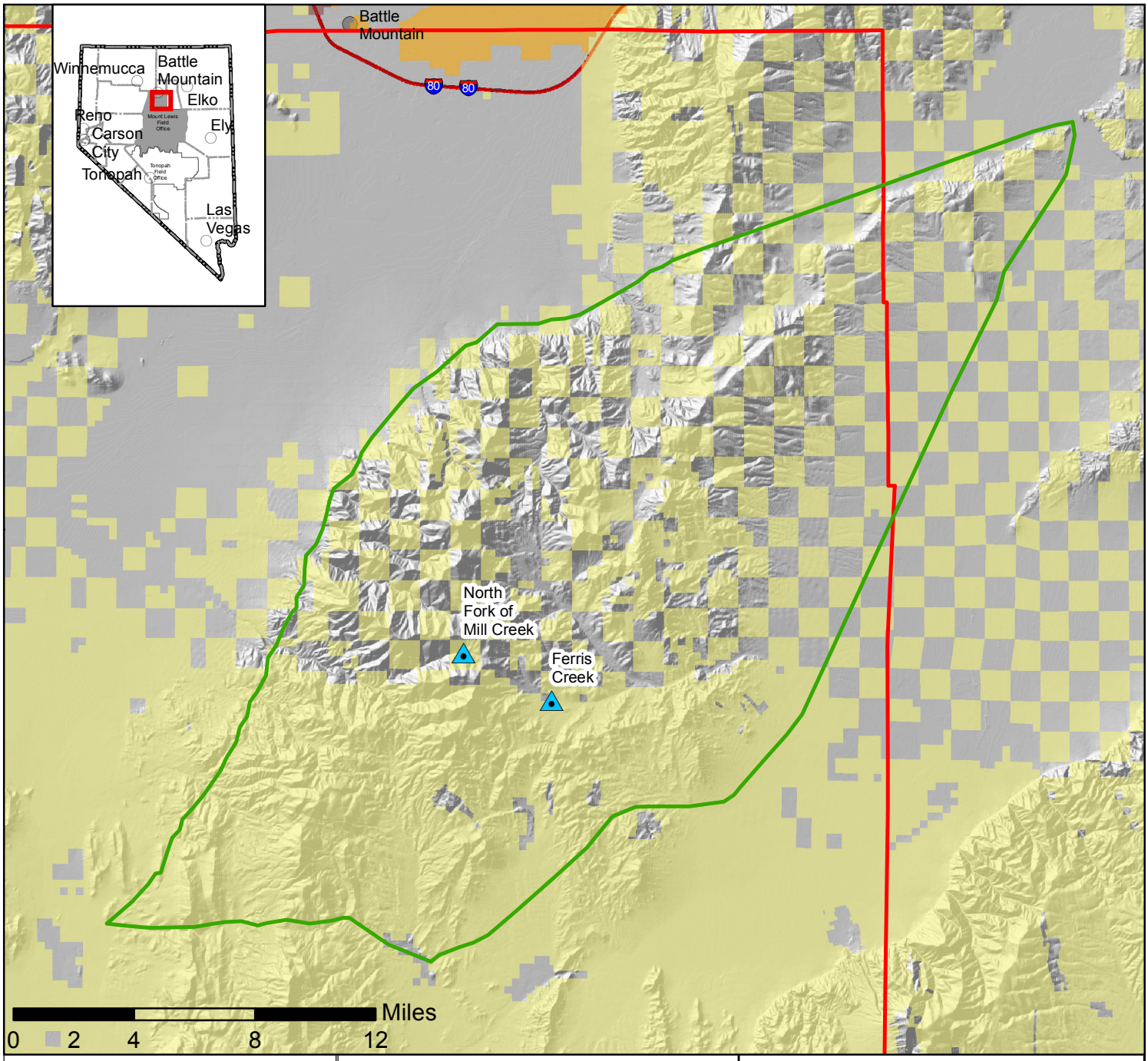
Wildlife habitat is expected to improve within the exclosures as a result of the vegetation and stream recovery following the removal of livestock grazing. It is expected that wildlife would benefit from the improved habitat within the exclosures. These areas are a relativity

small (0.04%) portion of the CESA, and impacts are expected to be minimal.

Proposed Action

The proposed action (approximately 34.6 acres) would impact approximately 0.01% of the CESA. Quantifiable past and present actions and RFFA disturbance in the CESA total approximately 97,663 acres, which results in an incremental impact of the proposed action of approximately 0.04%. Since there are limited quantifiable data from all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the proposed action. Therefore, based on the above analysis and findings, incremental detrimental impacts to wildlife as a result of the proposed action, when combined with the impacts of the past and present actions and RFFAs, are expected to be insignificant.

Wildlife habitat is expected to improve within the exclosures as a result of the vegetation and stream recovery following the removal of livestock grazing. It is expected that wildlife would benefit from the improved habitat within the exclosures. These areas are a relativity small (0.04%) portion of the CESA, and impacts are expected to be minimal.



Project Areas
Wildlife CESA Boundary
Field Office Boundary
Mount Lewis Field Office
Bureau of Indian Affairs
Bureau of Land Management
Bureau of Reclamation
Private
Battle Mountain
Major Road
Interstate

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Argenta Settlement Agreement
Environmental Assessment

Wildlife Cumulative Effects Study Area

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Chapter Five: Consultation and Coordination

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5.1 Tribes and Agencies Contacted

Te-Moak Tribe of Western Shoshone

Battle Mountain Band of the Te-Moak Tribe of Western Shoshone

United States Fish and Wildlife Service

Nevada Department of Wildlife

Nevada State Clearinghouse

Department of Interior Bureau of Reclamation

Eureka County Department of Natural Resources

Town of Tonopah

Lander County Planning

Lander County PLUAC

Esmeralda County Commissioners

Nevada Department of Transportation

Nevada Department of Agriculture

Lander County Commissioners

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Chapter Six:
List of Preparers

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6.1 List of Preparers

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Chapter Seven: References

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Bryce, S., Woods, A., Morefield, J., Omernik, J., McKay, T., Brackley, G., et al. (2003). Ecoregions of Nevada. Reston, Virginia: US Geological Survey.

Bureau of Land Management, US Department of Interior. (1984). Shoshone-Eureka Resource Management Plan.

_____. 1986. Visual Resources Management, "Visual Resource Contrast Rating," BLM Manual, Section 8431:1

_____. (1996). Final Mule Canyon Mine Environmental Impact Statement.

_____. 2008. BLM National Environmental Policy Act Handbook H-1790-1. Bureau of Land Management, National Environmental Policy Act Program, Office of the Assistant Director, Renewable Resources and Planning (WO-200), 1849 C Street NW, Mail Stop 1050LS, Washington, DC 20240. January 2008

_____. 2008b. *Special Status Species Management*. BLM Manual Handbook 6840.

_____. 2010. Memorandum of Understanding between the BLM and United States Fish and Wildlife Service to Promote the Conservation of Migratory Birds. IB 2010-110

_____. 2010. *The Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance*. Available online at:http://steinadlerschutz.lbv.de/fileadmin/www.steinadlerschutz.de/terimGoldenEagleTechnicalGuidanceProtocols25March2010_1_.pdf.

_____. 2011a. *Instruction Memorandum No. 2012-043: Greater Sage-Grouse Interim Management Policies and Procedures*. Washington, D.C.

_____. 2011b. *Instruction Memorandum No. 2012-044: BLM National Greater Sage-Grouse Land Use Planning Strategy*. Washington, D.C.

_____.2014 Mule Canyon Spring Mitigation Project Finding of No Significant Impact.

_____. 2015. Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana Nevada and Northeastern California Oregon Utah. September 2015. http://www.blm.gov/style/medialib/blm/wo/Communications_Directorate/public_affairs/sage-grouse_planning/documents.Par.44118.File.dat/GB%20ROD.pdf

Clary W.P., C.I. Thornton, and S.R. Abt (1996) Riparian Stubble height and Recovery of Degraded Streambanks. *Rangelands* 18:137-140.

Cox, Mike, Cody Schroeder, Larry Gilbertson, Jody Wilkinson, Mike Dobel, Ken Gray, Steve Kimble, and Pete Bradley, eds. *Nevada Department of Wildlife 2013-2014 Big Game Status*.

Elmore, W., and R.L. Beschta (1987). Riparian Areas: Perceptions in management. *Rangelands* 9:260-265.

Elston, R.G. and M. Bullock 1994 Behind the Argenta rim: prehistoric land use in Whirlwind Valley and the Northern Shoshone Range. Report No. 6-1513-1 prepared for Bureau of Land Management, Battle Mountain District.

Enviroscientists, Inc. 2013. Fire Creek Exploration Project 2013 Biological Survey Report. December 30, 2013

Hagen, C.A., J.W. Connelly, and M.A. Schroeder. 2007. A meta-analysis for greater sage-grouse nesting and brood rearing habitats. Wildlife Biology 13 (Supplement 1):42-50.

Holechek J.L (1988). An Approach to Setting Stocking Rate. *Rangelands* 10:20-24

Holechek, J.L., R.D. Pieper, C.H. Herbel (2011). Range Management Principles and Practices sixth edition.

http://www.blm.gov/nv/st/en/prog/more_programs/invasive_species.print.html

Nevada Department of Wildlife. 2015. Verbal Conversation between BLM Wildlife Biologist, William O'Neill and NDOW Biologist, Jeremey Lutz.

National Riparian Services Team. 2015. NRST Findings and Recommendations, Argenta Cooperative Monitoring Group (CMG). July 27-30, 2015

Natural Resources Conservation Services, United States Department of Agriculture. 2012. Applying the sage grouse fence collision risk tool to reduce bird strikes. CEAP Conservation Insight. Natural Resources Conservation Service, Washington, D.C. Nov. 2012; 5 pp. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/

_____. 2012. SGI fence collision risk data now available. Email correspondence form Jeremy Maestas.

_____. 1980. Soil Survey of Tuscarora Mountain Area, Nevada; Parts of Elko, Eureka, and Lander Counties.

Robison, Daniel. 2015. Results for the Scruffy Oz Exploration Project Greater Sage-grouse Lek Survey. Robison Wildlife Consulting. March 31, 2015.

Rubicon Environmental Consulting. 2015a. *Baseline Biological Resources Summary Report - Fire Creek Mine.* April 30, 2015, revised June 12, 2015

Tiedemann, A.R., D.A. Higgins, T.M. Quigley, H.R. Sanderson, and D.B. Marx (1987). Responses to fecal coliform in streamwater to four grazing strategies. *J. Range Manage*. 40:322-329.

Sage-grouse National Technical Team. 2011. A Report on National Greater Sage-Grouse Conservation Measures. Dec. 21, 2011

Smith B., L. Pingsun, G. Love , 1986. Intensive Grazing Management:Forage, Animals, Men, Profit. Pg 111-114.

Stevens, B.S. 2011. Impacts of fences on greater sage-grouse in Idaho: Collision, mitigation, and spatial ecology. Thesis, University of Idaho, Moscow, Idaho, USA.

Swanson S., S. Wyman, and C. Evans (2015). Practical Grazing Management to Maintain or Restore Riparian Functions and Values of Rangelands. Journal of Rangeland Applications. 2015 v.2 1-28.

Thurow, T.L., W.H. Blackburn, and C.A. Taylor, Jr. (1986). Hydrologic characteristics of vegetation types as affected by livestock grazing systems, Edwards Plateau, Texas. *J. Range Manage*. 39:505-509.

United States Fish and Wildlife Service. 2010a. Endangered and Threatened Wildlife and Plants; 12-month Findings for Petitions to List the Greater Sage-Grouse (*Centrocercus urophasianus*) as Threatened or Endangered; Proposed Rule. Federal Register 75(55): 13910-14014, March 23, 2010.

_____.2010. *The Interim Golden Eagle Technical Guidance: Inventory and Monitoring Protocols; and Other Recommendations in Support of Golden Eagle Management and Permit Issuance*.

Appendix A

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1	TP1	NDWR	8-Feb-16				All waters of the State belong to the public and may be appropriated for beneficial use pursuant to the provisions under Chapters 533 and 534 of the Nevada Revised Statutes (NRS), and not otherwise. Water diversions from any surface source must comply with the permitting provisions of Nevada Revised Statutes (NRS) Chapter 533. Water diversions from any underground source must comply with the permitting provisions of NRS 533 and 534. All water used on the described project must be permitted by the State Engineer's Office. Ensure that any water used on the described project for any use such as construction, dust control, or maintenance should be provided by an established utility or under permit or temporary change application or waiver issued by the State Engineer's Office with a manner of use acceptable for suggested projects water needs.	The proposed exclosures would not result in a change to current water use. No diversions or changes requiring a water use application are proposed.
2	KF1	Wildlands Defense	8-Feb-16				Please carry forward all Comments, Protests, Appeals, Reply filings, Attachments, etc. provided by WildLands Defense through all stages of the Argenta process. Please also carry forward all information from the 2014 Appeals. This includes Appeallant and BLM filings at all levels. We incorporate this by reference into these comments on the mere EA. I note that the Nevada State FOIA officer continues to stonewall in providing information WLF requested over 6 months ago. This purposeful stonewalling handicaps our ability to effectively participate in the Argenta processes. Moreover, BLM is continuing to do the bidding of the CMG is an illegal, biased, and discriminatory action that excludes the public from full and fair participation in public processes. An EIS must be prepared to assess the impacts of all aspects of livestock grazing, and the politically influenced Settlement under which BLM de facto cedes control over public lands to highly abusive livestock interests. The Settlement can not be implemented, as it has never been assessed for the very significant harmful impacts it is having to public lands, and the FACA violations, and bias and discrimination that it imposes.	BLM has reviewed scoping comments on this project from Wildlands Defense. It is noted that Wildlands Defense is opposed to the Argenta Settlement Agreement. The legality of the settlement agreement is outside the scope of this EA. The previously authorized projects required by the agreement have been included in the cumulative effects analysis in chapter 4 of the document. The other potential projects outlined in the agreement (boundary fence) have been added to the cumulative effects analysis. As described in the FONSI: After consideration of the environmental effects of the BLM's proposed action described in the EA and supporting documentation, the BLM determined that the project (Water Gap Alternative) with the project design features identified in the EA is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as described in 40 CFR 1508.27. Therefore, preparation of an Environmental Impact Statement is not required per section 102(2)(c) of the National Environmental Policy Act.
3	BS1	IRC	22-Feb-16		4		The EA states that there are several leks approximately 1.2 miles from the project (which one of the three projects is not clear) location. However, this is an erroneous statement. The nearest portion of the Fire Creek project is approximately 3.25 miles from the nearest lek, i.e. Horse Heaven 2 Lek; the nearest portion of the North Fork Mill Creek project is approximately 3.7 miles from the nearest lek, i.e. Indian Box Spring Lek, and; the nearest portion of the Ferris Creek project is approximately 4.6 miles from the nearest lek, i.e. Indian Box Spring. This statement at page 4 is also inconsistent with the remainder of the EA, and should be corrected.	After reviewing the GRSG lek location data, we agree that there are no recorded leks approximately 1.2 miles from the project. The document will be updated to reflect accurate lek distances. However, BLM would like to clarify that leks with active and pending active statuses are afforded the same protection under the GRSG ARMPA. The closest active or pending active lek to the North Fork Mill Creek exclosure is the Indian Box Spring lek (pending active), which is 3.7 miles away. The closest active or pending active leks to the Ferris Creek exclosure are the Utah Mine Camp 2 lek (pending active), which is 1.7 miles away, and the Utah Mine Camp 3 lek (pending active), which is 2.3 miles away. The EA will be updated to reflect this correction.
4	BS2	IRC	22-Feb-16		14,15		The document states, relative to the North Fork Mill Creek project: "(a)dditionally, two cattle guards would be installed allowing the road to continue in its existing course to include an additional spring in the exclosure." This statement is unclear. What have two cattle guards to do with including an additional spring in the exclosure? This should be clarified.	Text has been added to the description in the document to clarify.
5	BS3	IRC	22-Feb-16		15		The document states: "All activities would be halted immediately in the event of a discovery of a cultural resource." However, this provision is normally reserved for the discovery of human remains or funeral objects, not generally any "cultural resource".	According to Section VI.B of the Nevada State Protocol, unanticipated discoveries of cultural resources of any kind will result in all activities within 100 meters of the discovery being halted. Different procedures may subsequently take place depending on the nature of the discovery, however it would be the discovery of any cultural resource that would be subject to this protocol.
6	BS4	IRC	22-Feb-16		16		The EA states: "For barb wire fence, the fourth strand….and pronghorn antelope." This should be clarified to identify the "fourth strand" as the bottom strand.	"The fourth strand" will be replaced with "the bottom strand".
7	BS5	IRC	22-Feb-16		16,17		Identifying authority under the GRSG ARMPA (MD-SSS-2 and MD-SSS-3), the document states, relative to Ferris Creek, North Fork Mill Creek, and Fire Creek (i.e. all of the projects): "construction will only take place through September 16th through October 31st." However, this is not rational for a number of reasons, at least as follow: 1. The phrase is nebulous.	Comment noted. Phrase will be edited to read "…from September 16th through October 31st."

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8	BS6	IRC	22-Feb-16		16,17		2. Assuming the phrase is intended to mean "from September 16th through October 31st", the prohibition is not rational because fencing is not one of the surface-disturbing activities subject to any seasonal restriction. See ARMPA Appendix E. ARMPA Appendix E identifies surface-disturbing activities west-wide as: Energy (oil & gas) • Energy (coal) • Energy (wind) • Energy (solar) • Energy (geothermal) • Mining • Infrastructure (roads) • Infrastructure (railroads) • Infrastructure (power lines) • Infrastructure (communication). See Table E-1. ARMPA Appendix E identifies surface-disturbing activities on a site-specific basis as: • Coalbed Methane Ponds • Meteorological Towers • Nuclear Energy Facilities • Airport Facilities and Infrastructure • Military Range Facilities & Infrastructure • Hydrological Plants • Recreation Areas Facilities and Infrastructure. See Table E-2.	Seasonal restrictions for Greater Sage-Grouse habitat are addressed in MD SSS 2(E) and 3(E) for GHMA and PHMA, respectively. Seasonal restrictions are placed on "discretionary surface-disturbing activities and uses on public lands to prevent disturbances to GRSG during seasonal life-cycle periods". The items quoted from Appendix E are identified as surface-disturbing activities for the purpose of calculating the 3% disturbance cap required by the ARMPA, but do not comprise every possible type of surface disturbance. While we agree that fencing per se is not necessarily a surface-disturbing activity, the project and its associated activity can be considered a "use" that has the potential to negatively affect GRSG or its habitat (e.g., through noise disturbance) on public lands, per the ARMPA.
9	BS7	IRC	22-Feb-16		16,17		3. Further, as to the Fire Creek Project, the nearest lek to the Fire Creek Project is Horse Heaven 2 Lek, approximately 3.25 aerial miles away. However, Horse Heaven 2 Lek cannot be considered either an Occupied Lek (which is defined as "A lek that has been active during at least one strutting season within the prior 10 years", or a Pending Lek, which is defined as "A lek that has been active during at least one strutting season within the prior 10 years." ARMPA, pdf p. 84. The Horse Heaven 2 Lek has been counted with zero (0) birds in 2015, zero in 2005, zero in 2004, and zero in 2001. It was first and last counted with any birds (12) in 1997, i.e. 18 years ago. Therefore, sufficient data suggest that this is, at best, an Inactive Lek, and may be a Historic Lek; whatever it is, it does not fit the definition of being either Occupied or Pending under the ARMPA. Additionally, according to the document, NDOW lists this lek as "unknown" which does also not define it as Occupied or Pending. Additionally, a gold mine exists AT THE PROJECT SITE. See EA Map 2.2.1.	Section 2.2 has been updated to remove the seasonal restrictions for the Fire Creek location. The Fire Creek exclosure is no longer included in the analysis. An explanation can be found in the Background section of Chapter 1.
10	BS8	IRC	22-Feb-16		16,17		4. Further, as to the Ferris Creek Project, the nearest lek to the Ferris Creek Project is Indian Box Spring Lek, approximately 4.6 miles away. While Indian Box Spring Lek is an Occupied Lek, the Ferris Creek Project is more than 4.0 aerial miles from it (i.e. approximately 4.6 aerial miles).	The Utah Mine Camp 2 lek (pending active; 1.7 miles from Ferris Creek) and the Utah Mine Camp 3 lek (pending active; 2.3 miles away) are the closest active or pending active leks to the Ferris Creek exclosure. The Fire Creek Exclosure has been removed from the analysis. An explanation can be found in the Background section of Chapter 1.
11	BS9	IRC	22-Feb-16		16,17		5. Further, as to the North Fork Mill Creek Project, the nearest lek to the North Fork Mill Creek Project is Indian Box Spring Lek, approximately 3.7 aerial miles away. However, as noted, fencing is not considered a surface disturbing activity under the ARMPA. The project is outside the 1.2 mile buffer zone for fencing under ARMPA MD LG 23 (ARMPA p. 2-27).	See comment 13 re: fencing as a surface-disturbing activity. Because the fence is outside the 1.2 mile lek buffer prescribed by the ARMPA, there will be no restrictions on the placing of the exclosures in that location based on GRSG regulations. However, BLM specialists are still required to analyze the effects of all project activities within 4 miles of active or pending active leks.
12	BS10	IRC	22-Feb-16		22, 37, 40, 43, 46, 50		The document proposes, under the water gap alternative, that water gaps will be no larger than 20 feet long. This is an inadequate length of water gap. It is recommended that water gaps, whether on Fire Creek or any other fence project, be 100 feet or longer, sufficient to prevent overcrowding when cattle go to water (which they tend to do as large groups). To the extent possible, the water gaps should be angled in from a longer distance at their corners away from the stream, to the 100+ foot water gap.	The water gaps would be angled. The portion of the water gap at the water will 20 feet long to provide livestock access to water. The description of the water gap has been clarified in the text.
13	BS11	IRC	22-Feb-16		29		The document uses the term "overgrazing" to describe ground disturbance at all three project sites. Since there are no identified utilization levels that create ground disturbance and/or disturbance to cultural resources, a more accurate descriptor would be "trampling". This would make the descriptions at this page consistent with page 30.	The text has been changed.
14	BS12	IRC	22-Feb-16		34		The document states that "[t]he proposed action would promote improved condition….by excluding livestock from grazing and ground disturbance." While we do not necessarily disagree with the general premise, we will point out that noxious weeds and invasive species exist throughout the West in the absence of livestock grazing.	Noted.
15	BS13	IRC	22-Feb-16		34,35		The document's description of the proposed action and alternatives does not include, but should include, the fact that Battle Mountain BLM's noxious weed control program will continue under all of the three alternatives, and that the environmental consequences as to noxious weeds will be the same, since the noxious weeds will continue to be controlled under that control program, regardless of alternative selection.	Language has been added to the document.
16	BS14	IRC	22-Feb-16		36		The document expresses the opinion that livestock consume 15 gallons per day. The industry standard for planning water developments is considered to be 20 gallons per day for cattle.	The industry standard for water consumption by beef cattle is 10-20 gallons per day. Many factors influences how much water is consumed. 15 gallons is within the acceptable range. No change will be made.
17	BS15	IRC	22-Feb-16		41		The document states that drift from other permittees has not been observed/recorded in the North Fork Use Area. This is incorrect. Drift from the Mill Creek Use Area occurs commonly, when cattle are stocked in the Mill Creek Use Area (unfenced from the North Fork Mill Creek Use Area).	An addition has been made to state that the drift has not been observed or recorded by BLM.

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18	BS16	IRC	22-Feb-16		43,44		The document appears to confuse effects from recreation and effects upon recreation in the project areas.	The recreation section has been clarified.
19	BS17	IRC	22-Feb-16		44		It is not clear why the proposed action would have “negligible” impacts to recreation, while the water gap alternative would have “minor” impacts to recreation. Armored water gaps would permit the passage of ATVs, easy walking passage, etc., while the proposed action would not; both enclose the spring (per Round 1 actions) and the majority of the perennial stream. It appears that both would have “negligible” impacts to recreation.	As clarification, the water gaps will not be open on both sides of the exclosure. They would, therefore not permit passage of ATVs and/or easy walking passage. The effects to recreation would, indeed be the same. The language has been updated so both alternatives use the word negligible.
20	BS18	IRC	22-Feb-16		46		The document states that any disruption of soils will be temporary, as the project is estimated to take two weeks. It is not clear whether this means each project will take two weeks, or the entire set of projects will take two weeks. While we concur that any disruption of soils will be temporary, we caution against prediction of “how much time” each project or all projects will take. The estimated timeframe may forecast an unintended inference to the public that such timeframe is somehow mandatory.	The text has been updated to clarify that the disruption from construction related activities would be temporary. The text states that the two weeks is an estimate.
21	BS19	IRC	22-Feb-16		54,64		The document discusses two interim Instruction Memos. However, the document states that they are interim memos. We believe they are not the “law of the land”, but rather the ARMPA is the “law of the land”. The ARMPA does not, for example, require or recommend or suggest any delayed construction of fences. See, for example, ARMPA pages: • 1-11 (range management structures) • 2-5 (Table 2-2 footnote 4) • 2-11 (MD SSS 11) • 2-25 (consider temporary fences and temporary waterhauls) • 2-26 (MD LG 14) • 2-27 (MD LG 19) • 2-27 (MD LG 23) • 6-1 (BLM 1990b reference to Fencing Handbook H-1741) • 6-4 (reference to Christensen, T. 2009) • 6-5 (reference to Stevens, B.S. 2011)	Instructional Memoranda are not considered law; they are issued by BLM state and Washington offices to clarify the law or regulations or to provide direction on implementing laws. However, we agree that these IMs are no longer applicable; reference to the IMs has been removed from the EA. Seasonal restrictions on discretionary surface-disturbing activities are required when a project is in PHMA or GHMA and seasonal habitat as determined by habitat maps provided by NDOW. Please also see Comment 13.
22	BS20	IRC	22-Feb-16		56		It is unclear why a reference is made to Horse Heaven 1 lek, which is outside the 4-mile buffer zone from surface disturbing activities (of which fencing is not included- see comment relative to pages 16-17.	See comment 13 re: fencing as a surface-disturbing activity. Because the fence is outside the 1.2 mile lek buffer prescribed by the ARMPA, there will be no restrictions on the placing of the exclosures in that location based on GRSG regulations. However, BLM specialists are still required to analyze the effects of all project activities within 4 miles of active or pending active leks. The description of the leks and the distances is a thorough review of the affected environment.
23	BS21	IRC	22-Feb-16		64		The document states “Disturbance decreases significantly with the more jack-rail pipe fencing used which is not considered a ground disturbing activity.” It is unclear if the phrase “ground disturbing” is intended to be synonymous with “surface-disturbing”. If so, please see comments above relative to Page 56 and Pages 16-17. Fencing is not a surface-disturbing activity identified in ARMPA Appendix E.	The statement is meant to clarify that jack-rail fencing sits on the surface and is not anchored by pounding t-posts or brace posts.
24	BS22	IRC	22-Feb-16		64		The document discusses the NTT report. However, the NTT report, whether supportive or not supportive to the proposed action and alternatives, is not the ARMPA. The NTT is, at this point, irrelevant.	The document has been updated to reflect where the statement is paraphrased in the ARMPA.
25	BS23	IRC	22-Feb-16		65		The document states: “Since all three exclosures would be constructed within 4 miles of pending active leks, a GRSG Fence Collision Risk Tool (NRCS 2012) was used to model the exclosures to find the potential risk for GRSG collisions.” However, the reason for this statement and activity are unknown, because the ARMPA does not restrict the construction of fences within 4 miles of a “pending active lek”. Instead, the ARMPA (potentially) restricts construction of fences within 1.2 miles of an occupied lek (unless mitigated): “MD LG 23: Fences shall not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design).” ARMP, p. 2-27, underlining and italics emphasis added). As noted in these comments (and in the EA, except at page 4), all three projects are farther than 1.2 miles from the nearest lek.	MD SSS 11: Design and construct fences consistent with BLM H-1741-1, Fencing Standards Manual (BLM 1990), and apply the Sage-Grouse Fence Collision Risk Tool to Reduce Bird Strikes (NRCS 2012). Bring existing fencing into compliance as opportunities arise. This management direction does not specify a distance from the lek. The distance parameter is built into the Collision Risk Tool (3 kilometers). According to the text in the EA, the Collision Risk Tool is relevant for fences within a 3 kilometer radius of leks. The North Fork of Mill Creek exclosure did not meet this criteria at 4.9 kilometers from the nearest lek, the Ferris Creek exclosure was found to be a low collision risk (green) and the Fire Creek exclosure has been removed from this analysis (explanation in the Background section of Chapter 1).
26	BS24	IRC	22-Feb-16		67		The document discusses migratory birds, and “either completely avoiding construction activities during the breeding season or applying appropriate disturbance buffers if nests are found”. However, there is no science reported in the document that reports that construction of proposed fences creates any environmental impacts on migratory birds. Further, assuming there were any adverse impacts in the immediate areas of the projects, nevertheless these projects amount to three scattered projects totaling 51.3 acres (60 plus with the “Round 1 projects”) of the Argenta Allotment’s 331,518 acres, or 0.015 percent of the acreage of the allotment (or 0.036 percent of the 141,689 acres of BLM administered land). This cannot be considered to be anything other than negligible impact to the species, regardless of “when” (what season/time frame) the fences may be constructed.	Section 4.2.9 states that impacts to migratory birds and other wildlife and their habitat have resulted from the following.....2) indirect impacts from disruption of migratory bird habitat from human presence or noise from mining or other heavy equipment, water trucks, and four-wheel drive pickups;... The size of the project is not what is being mitigated. It is the human presence and noise during the construction phase. The intent is to minimize or completely eliminate any effect on migratory birds during construction.

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27	PR1	WWP	22-Feb-16				**BLM should close the Argenta allotment to grazing**. The photos in the EA of would-be riparian areas demonstrate a landscape badly in need of extended rest from grazing. This degraded state of the public lands within the Argenta allotment is a direct result of long-term overuse by private livestock companies, who have the privilege of using the public lands at subsidized rates for their private economic benefit. Unfortunately, this use is very obviously incompatible with any other use or value, including any public values like recreation, fish and wildlife habitat, ecosystem services, hunting, aesthetics, and naturalness. BLM should close this allotment to grazing and manage it for the benefit of the public instead of for a handful of irreverent permittees, who have shown they are either not interested in or not capable of grazing their livestock without unduly degrading lands that, as Neil Kornze recently stated, "belong to all Americans." http://www.oregonlive.com/oregon-standoff/2016/02/cliven_bundy_and_4_ others _face.html.	Closing the Argenta Allotment was proposed, but not considered: This alternative would eliminate grazing on the Argenta Allotment. This is not a feasible alternative because it fails to meet the need of the proposed action and is not consistent with the current Shoshone-Eureka Resource Management Plan, Federal Land Policy and Management Act of 1976, or the Taylor Grazing Act of 1934. No grazing and season of use changes will be analyzed during the permit renewal process by 2018 as outlined by the Argenta Settlement Agreement, but are outside the scope of the current analysis.
28	PR2	WWP	22-Feb-16				BLM cannot continue to "fix" these landscape-scale problems by excluding livestock from a few areas with fencing instead of by meaningfully reducing grazing through season of use restrictions and fewer livestock, or better yet, rest from of grazing altogether. BLM and range conservationists like NRST have relied on the same strategy to address riparian degradation for years: fence the riparian areas, develop new water and other attractants in the uplands, and consider the problem fixed. The effect is the incremental industrialization of the landscape, increased pressure on adjacent riparian areas, increased pressure on the uplands, elimination of upland species, removal of biological soil crusts, invasions of annual grasses, frequent wildfires, and a long-term loss of capacity and productivity, among other ripple effects. Excluded areas are no longer readily usable by big game and other wildlife and pose collision hazards for species like sage-grouse. Fences prevent use by the public and detract from the visual quality of public areas. See § 3.3 (p. 29) which admits that fences will deter public use of the fenced areas. And tragically, even the few riparian areas that were meant to be protected are not. They inevitably continue to get used by livestock either because fences are not maintained by BLM and the permittees, or they are damaged by livestock, big game, or trees, or the exclosures are subjected to "prescriptive use" by BLM, or they are intentionally or negligently trespassed. WWP has repeatedly documented exclosures in northern Nevada and other areas that simply do not serve their intended purpose, typically after a very short period of time. See e.g. attached reports on the Salmon River allotment in the Wells FO. There are better, cheaper, more permanent ways to protect riparian areas, and they require addressing the source of the harm, not just applying band-aid measures like fencing.	No grazing and season of use changes will be analyzed during the permit renewal process by 2018 as outlined by the Argenta Settlement Agreement, but are outside the scope of the current analysis. The EA states, "Under the proposed action, the project design features would minimize impacts to general wildlife species, including big game. Both fence designs, jack-rail and barbed wire, would be in conformance with BLM H-1741-1, Fencing Standards Manual (BLM 1990), minimizing potential negative effects to wildlife species that utilize the area and allowing for safe ingress and egress to the water sources." WWP has not identified "better, cheaper, more permanent ways to protect riparian areas" except for not allowing any livestock grazing, at the present time, the proposed fencing is the "better, cheaper, and more permanent way to protect these riparian areas" to jump start their recovery while grazing continues under the existing permitted use and BLM completes its permit renewal process.
29	PR3	WWP	22-Feb-16				**The exclosures enclose monitoring sites**. Each of the three exlosures would fence off at least one MIM site. The Fire Creek exclosure and Ferris Creek exclosures would each fence off two MIM sites. One effect of these projects would be to dilute the overall measurement of effects of grazing on riparian areas on the Argenta allotment. If BLM continues to rely on these MIM sites, they will surely show that the vegetation that cows are no longer allowed to access is improving. In turn, these will contribute to a false projection that the condition of riparian areas on the allotment is trending upward. Monitoring sites must be in representative areas of livestock use if they are to serve as legitimate indicators of the effects of grazing.	BLM agrees that monitoring sites must be representative of livestock grazing. MIM sites within exclosures would not be used to determine whether triggers or end-of-season utilization are met, but would be relocated based on where cattle graze. Data from existing MIM sites that fall within the new exclosures may continued to be collected to monitor the effectiveness of the exclosures, but would not be collected to determine whether livestock management objectives are being met.
30	PR4	WWP	22-Feb-16				**How much do these developments cost the public?** In its scoping comments, WWP asked BLM to provide information on the costs of these exclosures. BLM has declined to do so. Please provide a detailed accounting of the costs involved so that the public can weigh the cost and benefit, as well as alternatives that might accomplish the same thing with less public funds. For starters, the EA did not disclose the costs to date of NRST and contractor planning for these exclosures. For example, receipts WWP received from BLM following a FOIA request show that BLM has paid at least $268,966.78 to NRST and its contractors, including $134,040 to Full Stream Consulting and $134,926.78 for NRST staff time, travel costs, and other expenses. This planning and involvement by NRST and contractors is ongoing, and likely greatly exceeds these costs. The figures do not include BLM staff time either. Who will pay for construction materials, labor, planning, environmental and cultural surveys and analysis and other direct costs of these exclosures? Will the public bear the full costs? How will the BLM determine what share the permittees will pay? In December, 2015, Reveal News reported that Argenta permittees collected $2.2 million dollars in drought subsidies in 2014 alone. https://www.revealnews.org/article/ranchers-denied-the-drought-while-collecting-drought-subsidies/.	BLM has estimated the cost to prepare the NEPA document and other associated tasks to be $120,716.24. The cost estimate breakdown is attached in this appendix. The cost for the fencing material is $215,950. The estimate is also attached.
31	PR5	WWP	22-Feb-16				**Compliance with federal laws mandatory.** The EA at section 1.4 (p. 6) states that the project will comply with federal laws "to the maximum extent possible." It is unclear what BLM means by this statement. Compliance with federal law is not discretionary.	The text has been changed. BLM will comply with all federal laws.
32	PR6	WWP	22-Feb-16				**Need misstated**. The Purpose and Need statement is incorrect. WWP wholeheartedly agrees with BLM and NRST that these riparian areas and other should be rested from grazing (just not by using new fencing). However, the EA claims that "this project is needed to fulfill the BLM's legal obligation" in its Settlement Agreement. This is not true. BLM could equally meet its obligation by issuing a decision not to approve new fencing. BLM committed only to issue a decision, not to construct the exclosures. BLM could also meet its stated obligations under the fundamentals of rangeland health regulations in other ways.	The BLM need for this EA was to respond to an application, consistent with the timeframes established under section 7.15 of the Settlement Agreement. The "Need" refers to the need to complete the EA in order to reach a decision. It does not refer to the need to approve the exclosures. BLM analyzed the Proposed Action, the Water Gap Alternative, and the No Action Alternative. The Authorized Officer is able to choose any of those alternatives including the No Action Alternative. The BLM need for this EA, was to fulfill the responsibility under section 7.1.5 of the agreement. In addition, the No Grazing Alternative was proposed but eliminated from detailed analysis because this is not a grazing management EA. This EA is to analyze fencing alternatives. BLM analyzed the fencing proposed action and no action because it is protective of the riparian habitat and allows for improvement in riparian health while the permit renewal decision-making process is underway.

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33	PR7	WWP	22-Feb-16				**Illegal NEPA process** As WWP has repeatedly told BLM, these projects violate NEPA because they are being considered separately from BLM's NEPA analysis and decision process for the issuance of new grazing permits, and apart from other very similar projects. They are connected actions that must be analyzed in the same NEPA document. Instead, BLM has segmented these actions into piecemeal analyses and decisions. BLM continues to justify this segmentation based on its commitments in its Settlement Agreement. But the Settlement Agreement does not authorize BLM to violate NEPA. To illustrate, BLM recently approved six other exclosures on the allotment, as well as waterhaul locations and a water pipeline (Round 1). Why did BLM analyze the Round 1 developments separately from the Round 2 developments? After all, these projects are clearly related (or even the same project--the complete Fire Creek and Ferris Creek exclosures are apparently part of both rounds! Half were approved under a CE in Round 1 and the other half if being analyzed here in Round 2. The Ferris Creek exclosure would be physically connected to the Carico Lake/Argenta boundary fence, also analyzed separately). Why did BLM approve the Round 1 developments through a CE and DNA, and issue this EA for the Round 2 developments? Why isn't BLM analyzing the Carico Lake/Argenta boundary fence together with the Round 1 and Round 2 developments? And why is BLM analyzing all of this infrastructure separately from its analysis of the grazing it permits on the allotment? If BLM decides not to renew the grazing permits for the Argenta allotment, what independent purpose will all of this new livestock grazing infrastructure serve? Will permanent fencing designed to exclude cattle from riparian areas still be necessary if cattle are not authorized to use the allotment? Has BLM already determined that it will renew the grazing permits for the allotment? Isn't BLM required to objectively analyze a no-grazing alternative in that process? The approval of these projects also creates a strong impression that BLM has predetermined the outcome of the permit renewal process. This segmentation clearly violates NEPA. Please withdraw the Round 1 decision and wait to analyze any livestock developments until the permit renewal EA.	While BLM agrees that the Settlement Agreement does not authorize BLM to violate NEPA, it does outline specific timeframes and NEPA actions. Under 7.1.4: "For small lotic exclosures identified by NRST as a high priority for construction during the Interim Management period, and so long as such exclosures qualify for a Categorical Exclusion under NEPA, BLM commits to issuing a decision in accordance with 43 C.F.R. subpart 4160 within 30 days of receipt of NRST's proposal(s),..." Under 7.1.5: "BLM commits to issuing a decision in accordance with 43 C.F.R. subpart 4160 within 8 months of receipt of permittees' completed application for 1-3 high priority larger lotic fence proposals if identified as such by NRST." These commitment in the agreement is only an allocation of resources. The specific decision to be made was not specified. The lentic exclosures authorized in September 2, 2015, and the proposed lotic exclosures analyzed in the EA are not connected actions since they have independent utility. The lentic exclosures that have already been approved provide benefits to the exclosed riparian spring sources that are not dependent on authorization of the proposed lotic exclosures. BLM included the previously approved lentic exclosures in the cumulative effects analysis in Chapter 4 of this EA. The effects of all activities in the Cumulative Effects Study Areas (including lentic exclosures) were not found to be significant. The proposed action protects lotic stream segments, which provides an enhanced level of riparian protection beyond that provided by the lentic exclosures. These exclosures give the riparian resources a jump start toward recovery and could make measurable progress toward healthy riparian systems during the permit renewal process, and do not predetermine the outcome of the permit renewal process, which will include a no grazing alternative. If the permit renewal process results in a determination that the exclosures are not necessary or desirable as part of the new grazing system, the exclosures could be removed and reused as described in Section 2.1.
34	PR8	WWP	22-Fe-16				BLM's approval of grazing infrastructure prior to its decision on issuing permits also prejudices BLM's selection of reasonable alternatives, including those that WWP described in its scoping comments—increased permittee vigilance, rest from grazing over a larger area, change in season of use, fewer livestock. Any of these has the potential to render new fencing unnecessary and could accomplish BLM's stated purpose of protecting riparian areas with less cost and environmental impact.	This is not a grazing management EA. Season of use changes and reduced livestock use are outside the scope of analysis in this EA and will be analyzed by 2018 during the permit renewal process. This EA is in response to fencing proposals submitted by the permittees. The exclosures will protect high value riparian areas and and allow recovery of the resources to begin while the permit renewal process is completed.
35	PR10	WWP	22-Fe-16				The approval of the Round 1, Round 2, and Argenta/Carico allotments boundary fences and any other livestock projects before the Argenta allotment Grazing permit renewal process, which the EA notes will be complete by the end of the 2017 grazing year, are a clear prior commitment of public resources.	BLM is not restricted to analyzing and implementing range improvement projects only during the permit renewal process. There is an obvious and immediate need to protect riparian areas on the allotment. WWP was provided all documentation in response to a FOIA request. The proposed action does not preclude the removal of the lentic or lotic exclosures after the permit renewal process is complete, e.g., if the riparian areas have sufficiently recoverred or theree is no grazing authorized in those use areas following permit renewal.
36	PR11	WWP	22-Fe-16	3.3	28		**Environmental Effects** Areas of Potential Effect (APE). The EA defines the area of direct and indirect effects as only including the exclosures themselves and a 10 meter buffer surrounding. This area is much too small to capture impacts such as effects to water quality, increased use of surrounding riparian areas and uplands, increased trailing, cultural resources, increase in invasive plant species, effects to sage-grouse in surrounding uplands, effects to the viewshed and aesthetics of the area, and recreation, among other affected values.	The Area of Potential Effect discussed in Section 3.3 on page 28 is only for cultural resources. The Nevada State Historic Preservation Office was consulted and had no concerns with the established APE for cultural resources. The other resources were analyzed both in the Chapter 3 (Affected Environment & Environmental Consequences), and in Chapter 4 (Cumulative Effects). A Cumulative Effects Study Area (CESA) is outlined for each resource in Chapter 4 and all CESAs encompass an area much larger than the 10 meter buffer for the Cultural APE.
37	PR12	WWP	22-Fe-16				Trespass. BLM has failed to consider the potential impacts of trespass in these exclosures. Two of the main permittees on the Argenta allotment were recently issued notices of noncompliance for willful trespass on the Mount Lewis Field Office. Permittee Julian Tomera Ranches, Inc. failed to abide by BLM's July 23, 2014 notice to remove livestock from certain use areas and BLM's August 22, 2014 drought closure decision. Permittee Badger/Chiara Ranch (Filippini) defied another closure on the adjacent Battle Mountain Complex, openly turning out livestock after publicizing its intention of doing so on its facebook page, "Stand with Battle Mountain" https://www.facebook.com/standwithbattlemountain/ and getting word from State Director Ruhs that BLM would stand down while the permittees violated the existing closure decision. http://elkodaily.com/news/local/blm-allows-grazing-on-closed-allotment-to-avoid-confrontation/article_e8409a24-aafe-5758-9eb6-c0ffdd550f44.html. BLM quickly settled that willful trespass incident for $106. http://news4nevada.com/PrintArticle.aspx?aid=23589&uid=fa3c059f-7b9c-445a-a56d-b75e7bd725a1. In the LA Times, the same permittee recently announced intentions of turning out livestock on the Argenta allotment in 2016 regardless of BLM approval. http://www.latimes.com/nation/la-na-nevada-ranchers-blm-20160114-story.html. Given the potential for intentional or unintentional unpermitted use of the exclosures (see general comments above on likelihood these will not be maintained), BLM erred by not considering the potential grazing effects to these areas notwithstanding the construction of new exclosures. See e.g. Klamath Siskiyou Wildlands Ctr. v. Grantham, 623 Fed. Appx 320 (9th Cir. 2015).	BLM conducts compliance inspections as a normal part of their administrative responsibilities. If through this process any tresspass is detected the BLM will take appropriate actions in accordance with the applicable CFRs. There is no way to predict or quantify future willful or non willful trespass by a particular permittee. BLM regulations outline a suite of actions that may be taken in cases of tresspass. The action may be selected on a case by case situation by the authorized officer. The intent is to prevent and deter tresspass and encourage compliance within the terms and conditions of permitted use. In Klamath Siskiyou Wildlands Ctr. v. Grantham, 623 Fed. Appx 320 (9th Cir. 2015), "while the EA explained that the KNF's proposed action was supposed to result in little to no cattle drift within a few years of implementation, it provided essentially no information about the environmental impact of the drifting cattle in the RRSNF in the past or during the period covered by the proposed action." The court said the Forest did not analyze the effects of past cattle drifting outside of their designated allotment. In contrast to the cited Klamath case, this EA documents the past effects of livestock grazing (which includes any effects from drift) in the specific riparian areas and has analyzed the potential effects (both beneficial and detrimental) of exclosing the proposed areas to livestock grazing. BLM has analyzed the effects of the proposed action and alternatives in the EA including the design features common to all alternatives. Under Section 2.1 Description of the Proposed Action: "Fence construction and maintenance will be assigned to the permittees on the Argenta Allotment through a cooperative agreement and assignment of range improvements. BLM will periodically inspect the range improvement to ensure proper maintenance is occurring."

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38	PR13	WWP	22-Fe-16	3.5	33		Invasive and noxious weed species. The EA recognizes that the project may introduce or spread weeds already present in the project area that there is a potential for establishment. The EA does not discuss the probable effects of increased trailing, milling, and concentrated use along new fences which will create large disturbed areas that will provide receptive conditions to the spread and establishment of noxious and invasive plants. The EA also fails to consider the increased use of adjacent uplands and riparian areas that will promote more invasive species establishment as existing number of livestock concentrate in less available area.	Under Section 2.2 Design Features Common to All Action Alternatives, "To the extent possible, fence lines would be placed where existing disturbance and topography would limit impacts of livestock trailing." Under Section 3.11 Vegetation "Long-term disturbance would result from trampling of vegetation due to increased trailing along the fence lines by livestock. These impacts are typically small and would be further mitigated by placing most of the fence lines along existing roads, loafing areas or traversing steeper slopes where disturbances already exist or livestock typically avoid." A similar statement has been added to the Section 3.5 Noxious Weeds, Invasive, and Non-Native Species. It does not change the analysis as the effect is mitigated by the project design features. Also, upland utilization triggers for the allotment will still apply. Once the triggers are met, the livestock will be removed. This means that if there is concentration in upland locations, those triggers will be met sooner and the livestock will be removed sooner.
39	PR14	WWP	22-Fe-16	3.3	28		Cultural resources. The EA admits various impacts to cultural resources, including that a fence will be built through a known site on Ferris Creek. BLM's conclusion is that livestock have already degraded the area to the point that any new degradation will not have an additional impact. Please explain this conclusion further. Will any areas receive additional or new impacts? The EA says the impacts will be avoided to historic properties on N. Fork Mill Creek, but the site has not been inventoried, so sites have apparently not been identified.	The EA has been updated. This clarification was added: "The site at at the Ferris Creek location is eligible for its possible research potential under Criterion D. This research potential comes from it possibly containing intact subsurface deposits. The ground surface, as well as the first few centimeters underneath, lack integrity due to existing cattle disturbances and erosional processes. Setting a jack rail fence (non-intrusive) across the site would not disturb any subsurface deposits. Also, cattle trampling on a surface that lacks integrity would not cause any adverse effects to possible subsurface deposits, therefore avoiding all adverse effects to the component of the site that makes it eligible." This clarification was also added, "In regards to the areas that have not been inventoried, Section 7.E.a of the State Protocol Agreement between The Bureau of Land Management, Nevada and The Nevada State Historic Preservation Officer for Implementing the National Historic Preservation Act, Revised December 22, 2014 provides design features for the construction of exclosure fences so that, when followed, these projects can be categorically considered to have no adverse effect on historic properties. This would still require a Class III inventory of the project area so that these measure could be met, and this will occur prior to construction. Any properties identified during those inventories will be avoided according to the stipulations set forth in the Protocol Agreement, therefore avoiding all adverse effects to historic properties."
40	PR15	WWP	22-Fe-16	3.6, 3.10	44, 35		Water Quality and Soils. Again the EA fails to consider the increased concentration and use of riparian areas adjacent to those excluded from livestock. This concentrated use would increase impacts to water quality. Trailing along fence lines in highly erodible soils is likely to result in major erosion and increased sedimentation of the associated creeks. This is clearly illustrated in attached reports from the Salmon River allotment. Increased use in the uplands associated with exclusion of riparian areas and newly developed water in other areas will increase impacts on soil crusts, which leads to increased invasive annual grasses, less native bunch grasses, pedestalling, and other upland erosion. WWP is therefore very skeptical of BLM's conclusion that there would be any net benefit from this fencing.	The EA currently addresses these issues in the Soils, Water Quality, and Wetlands and Riparian Sections. It states that these effects would be negligible. The rationale includes: the areas outside of the exclosure being on private lands; or in different stream complexes that are more naturally armored from the impacts of livestock grazing; or that trailing along fences is typically small and mitigated by fence placement. For example, the Environmental Consequences Section for Ferris Creek in the EA says, "The remaining unfenced segments in the upper portion of Ferris Creek on public land are steep, rocky and intermittent. The lower portion of Ferris Creek in the Indian Creek use area is separated by an existing drift fence and no changes to current livestock impacts on the lower sections would occur." There is also a 4 inch stubble height utilization trigger in riparian areas. Once that trigger is met in riparian areas outside of the exclosures, the livestock would be removed from the area.
41	PR16	WWP	22-Fe-16	3.7	37		Riparian values. By addressing problems of riparian degradation by using fencing to exclude small areas, BLM continues to allow degradation and nonfunction of riparian areas in the remainder of the riparian habitats on the allotment. See e.g. Salmon River allotment reports. Instead of fencing small areas of creek bottom, BLM should implement management that will allow entire watersheds to recover. Exclosures do not fix watershed problems.	WWPs opposition to the exclosures is noted. The riparian 4" stubble height trigger remains in effect under the interim management system. The exclosures are targeted at high priority riparian areas and for the purpose of jump-starting recovery in those areas. The exclosures will help make progress toward healthy watersheds, and the permit renewal process will also assess what other management actions are required to achieve healthy rangeland resources.
42	PR17	WWP	22-Fe-16	3.9	43		Recreation. The EA fails to discuss that fences would exclude humans to a large degree, impacting opportunities for recreation, and that many people consider industrial-scale livestock developments including fencing to be aesthetically displeasing and disruptive on the landscape. Since the EA notes that healthy riparian areas that would occur due to exclusion of livestock would attract wildlife and game, recreational opportunities would be vastly increased by reducing or eliminating livestock grazing altogether in the mountain use areas.	The fences are not intended or anticipated to exclude human foot traffic from the riparian areas. Visual resources were analyzed in Sections 3.12. This is not intended to be a grazing management EA. The decision for this project is whether to approve the proposed action and protect the high value riparian resources from the effects of livestock use, or to approve the no action and continue to allow livestock to use those areas.
43	PR18	WWP	22-Fe-16	3.13	55		Lahontan cutthroat trout. The EA states that the projects may affect Lahontan cutthroat trout, a listed species. If this is the case, BLM must consult with the US Fish and Wildlife Service pursuant to Section 7 of the Endangered Species Act over effects of the action. What other fish species are present in these waterways? Are they historic Lahontan cutthroat trout habitat? Are there other native fish present?	The EA states that during coordination with USFWS, it was noted that Lahontan cutthroat trout may be present in the project area. It goes on to say, "from field surveys and local NDOW information (BLM 2015), there are no present or historic populations of Lahontan cutthroat trout that exist within the project area."
44	PR19	WWP	22-Fe-16	3.13	58		Pygmy rabbit. In 1994 and 1995, pygmy rabbits were frequently observed in the Park and throughout other scattered locations on the allotment, including as late as 2000. Are there known historic pygmy rabbit locations in any of these three project areas? Will the fencing in Fire Creek intensify impacts in potential pygmy rabbit habitat there?	Section 3.13 of the EA specifies that there is no suitable pygmy rabbit habitat in any of the project locations.

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45	PR20	WWP	22-Fe-16	2.2 3.13	16,59,62,64		Antelope and Mule Deer. The EA says the majority of riparian habitat on public lands along Fire Creek would be fenced. These areas contain habitat for pronghorn, which were detected in the area. How can this new fencing be consistent with use of these areas by pronghorn or other big game?	The fencing is not intended or anticipated to limit mule deer and pronghorn access to the riparian areas or water. Section 2.2 Design Features Common to All Alternatives: The proposed fencing will be designed and constructed in accordance with BLM's H-1741-1 Fencing Standards Manual (BLM 1990). For barb wire fence, the fourth strand will be a smooth wire for safe ingress and egress for all wildlife species including mule deer and pronghorn antelope. It is not anticipated that barbed wire will be needed. Based on topography a maximum of 1,700 linear feet would be used. Section 3.13 Wildlife: Both fence designs, jack-rail and barbed wire, would be in conformance with BLM H-1741-1, Fencing Standards Manual (BLM 1990), minimizing potential negative effects to wildlife species that utilize the area and allowing for safe ingress and egress to the water sources. The short lengths and design of the proposed exclosures would not impact or restrict big game and general wildlife movement patterns. The increased noise from fence construction would be temporary and not expected to result in long term effects on big game and wildlife populations.
46	PR21	WWP	22-Fe-16	3.13			Sage-grouse. Two of the three exclosure locations are located within PHMAs—the most valuable sage-grouse habitat. What are the benefits to sage-grouse from fencing the riparian areas compared to closing the associated use areas to grazing? Even marking these fences will not completely remove the risk to sage-grouse from collisions. Further, the fencing will allow perches for avian predators and contribute to fragmentation of the landscape, which in turn allows increased corvid populations. What are the effects to sage-grouse from increased use of the adjacent uplands and areas associated with attractants like low moisture block supplement, and waterhauls or permanent water developments? Where do the sage-grouse that breed at the leks listed in the EA nest? Please include the actual collision risk mapping in the final EA.	Closing the allotment or reducing grazing is not within the scope of the analysis. The EA has been updated to include seasonal habitat maps for each exclosure area. BMDO does not include lek locations in public documents. The collision risk mapping is entirely based on lek locations and therefore will not be included in the document. However, the results of the tool are outlined on in Section 3.13 and concluded that the North Fork Mill Creek fence wasn't close enough to the lek to use the tool and the Ferris Creek Exclosure is a low collision risk. Section 3.13 acknowledges the indirect impact of providing perches for ravens. It also states "The riparian exclosures would be providing improved GRSG brood-rearing habitat (Table 2-2 GRSG ARMPA 2015) thus ensuring successful and healthy populations of GRSG. The exclosures are expected to allow the exclosed areas to return to PFC. By adhering to the design features for GRSG, no significant impacts to GRSG habitat or populations would be expected. "
47	PR22			3.13	68		The EA says that under the no action alternative, the condition of riparian areas that should serve as late brood rearing habitat for sage-grouse will continue to decline. What would the effect to late brood rearing habitat be under an alternative that closed these use areas to grazing for the remainder of the permit term? Why didn't BLM consider that alternative? Under the no action alternative (stockmanship plans) the permittees are supposed to be using riders to keep livestock from riparian areas. Why isn't that sufficient? Are more herders necessary? If so, why doesn't BLM require the permittees to employ more riders? The permittees—not wildlife and the public—should bear the cost of protecting these areas from their cattle by working harder.	This is not a grazing management EA. Season of use changes and reduced livestock use are outside the scope of analysis in this EA and will be analyzed by 2018 during the permit renewal process. If the analysis during the permit renewal shows that the exclosures are not needed, the exclosures could be removed and reused as described in Section 2.1. Under the No Action Alternative, the livestock are removed when the riparian triggers are met. Cattle are not required to be completely removed fromthe riparian areas until that point. Livestock are attracted to riparian areas as they provide a source of water and forage and are cooler in temperature during the summer months as compared to the surrounding uplands. Because of this stockmanship is not as effective as excluding the livestock with fences. It is anticipated that total exclusion of livestock from these riparian areas would give the areas a head start in the recovery process prior to the completion of the permit renewal.
48	PR23	WWP	22-Fe-16	3.11			Aspen. What are expected impacts to failing aspen stands that may receive increased use as a result of these new exclosures? Where are aspens located in relation to the project areas, including historic aspen areas that may have been previously killed out due to grazing?	The document has been clarified to say that Aspen stands are only present near the North Fork of Mill Creek portion of the project. The exclosure of a portion of adjacent herbaceous dominated riparian area is not expected to significantly change livestock effects on the aspen stand. The aspen stand can be seen on the map of the North Fork of Mill Creek exclosure.
49	PR24	WWP	22-Fe-16	2.0	12		**Alternatives** The stated purpose and need of the proposed action dictates the scope of reasonable alternatives. BLM must consider all reasonable alternatives. Here, BLM failed to consider reasonable alternatives.	The scope of this EA is to approve the installation of the exclosures (with or without modifications) or the no action alternative. The alternatives proposed by WWP are more suitable for analysis during the permit renewal process.
50	PR25	WWP	22-Fe-16	2.0	12		The EA states that the purpose of the project is to protect areas of riparian habitat from livestock grazing. This could be accomplished in other ways than new fencing, such as passive restoration. For example, in Rangeland Management: Practices and Principles, Holecheck et al. (2011) states that "methods available to rehabilitate riparian zones include complete livestock exclusion, rotation grazing schemes, changes in season of use, changes in type or class of animal, and techniques that improve livestock distribution."	This is not a grazing management EA. The scope of this EA is to approve the installation of the exclosures (with or without modifications) or the no action alternative. Season of use changes and reduced livestock use are outside the scope of analysis in this EA and will be analyzed by 2018 during the permit renewal process. If the analysis during the permit renewal shows that the exclosures are not needed, the exclosures would be removed.
51	PR26	WWP	22-Fe-16	2.0	12		WWP has also included with these comments publications (including by BLM and NRST) that similarly demonstrate that fencing is not the only reasonable way to protect these riparian areas. Among reasonable alternatives that BLM failed to consider are closure of the mountain use areas for the remainder of the permit term, requiring permittees to employ herders to keep livestock out of these areas, restricting the amount of time livestock are allowed in the mountain use areas, and reducing the number of cows each permittee is allowed to graze. The EA is infirm for not considering these and other reasonable alternatives.	BLM will consider WWPs proposed alternatives as part of the permit renewal process. The purpose of this EA is whether to approve the exclosures (with or without modifications) or the no action alternative.
52	PR27	WWP	22-Fe-16	4.2.2	72		**Cumulative Impacts** The EA notes a large degree of existing invasive and noxious weeds and risk for further establishment and expansion. This appears to be a potentially significant cumulative impact. Further, the CESA for invasive species includes only the three use areas where these projects are located. The lower-lying use areas of the allotment are even more disturbed and invaded by cheatgrass and other weeds. What is the total area of the allotment as a whole that is disturbed and invaded, or subject to likely future disturbance?	The EA states that there is a low potential for spread of noxious weeds, invasive and non-native species. It also states that the potential is decreased as a result of project design features. Chapter 4 outlines that the Proposed Action as well as the Water Gap Alternative would impact approximately 0.02% of the CESA. Approximately 12% of the CESA is impacted or vulnerable to noxious weeds, invasive and non-native species. The incremental impact from this project would be 1.2% Furthermore, the infestation already exists and would not be a direct result of the project analyzed in this EA. Chapter 3 states "The proposed action would promote improved condition of plant communities and reduce the vulnerability of the project area to weed infestations by excluding livestock from grazing and ground disturbance. Maintaining healthy rangeland would support native shrubs, understory grasses and forbs that remain intact and compete with the invasive annual and perennial species. When the recovery of drought stressed vegetation begins to improve and become more resilient, native vegetation would better compete and help protect against noxious weeds, invasive and non-native species."

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53	PR28	WWP	22-Fe-16	4.2.4	75		The cumulative impacts section of the EA addressing riparian areas and wetlands needs to have the total number of miles and acres of riparian areas and springs (public and private) in the CESA in order to show what percentage of the riparian areas over the greater area will be affected.	Information has been added to chapters 3 and 4.
54	PR29	WWP	22-Fe-16	4.2.5	78		The EA notes the "Mule Canyon Mitigation Project," which was approved in 2015. What is this project and is it located on public or private land? Was the public allowed to comment on it, and was there environmental or cultural analysis conducted? Please provide more information, including what the actual impacts of the project are, so that readers of the EA can understand what its cumulative impacts are.	Text has been added to the description in the document to clarify.
55	PR30	WWP	22-Fe-16	4.0			How much fencing and how many livestock developments already occur in the allotment? What is their existing footprint? The EA does not discuss the construction of a 16 mile fence recently built. Please include detailed maps with all pre-existing livestock infrastructure on the allotment, on both private and public lands.	The EA has been updated to briefly address private lands infrastructure related to grazing. The Argenta grazing allotment includes portions of Battle Mountain and Hilltop communities.
56	PR31	WWP	22-Fe-16	4.0			Please include on the map all salting areas, water haul locatinos, and other non-fixed livestock infrastructure sites.	Locations of BLM approved water hauls are provided in the September 2nd decision. The map of those locations has been included in this appendix. The waterhauls are not included in the cumulative effects chapter because they are temporary in nature. The BLM does not otherwise approve the placement of the other requested information.
57	PR32	WWP	22-Fe-16	4.0			The Carico/Argenta fence is in planning stages, and, as WWP has repeatedly advised, it must be considered as a cumulative impact regardless of whether it occurs partly or entirely on private land. Why does BLM continue to ignore that project in its analyses?	The allotment boundary fence has been added to Chapter 4. The details of the fence are currently unknown as the proposal is expected to be primarily on private land. A figure has been included to illustrate the possible location on the fence. And how it relates to Greater Sage-grouse habitat.
58	PR33	WWP	22-Fe-16	4.0	71		BLM does note the Round 1 exclosures here, but does not describe any impacts they will have. This is not sufficient to be able to consider their impacts in addition to the Round 2 exclosures.	The round 1 exclosures are discussed as part of the cumulative effects analysis in Chapter 4. Their total acreage is accounted for in section 4.2.5.
59	PR34	WWP	22-Fe-16	4.0	71		The cumulative impacts area should at least include the Carico allotment as livestock are known to move between the two allotments.	Though there has been unauthorized drift between the two allotments in the past, currently there is no known unauthorized drift between the two allotments. One thing that is in the reasonably foreseeable future is the allotment boundary fence between the two allotments is extended. That action would be analyzed then since currently there is no application that provides details of where this fence would actually lie. If unauthorized use occurs it is addresses through a separate administrative process.
60	PR35	WWP	22-Fe-16	4.2.9	84		What is the biological justification for the cumulative impacts area for wildlife, including migratory birds and pygmy rabbits? Pygmy rabbits were known to inhabit several areas on the Carico lake allotment as recently as the mid-1990s.	"The Wildlife CESA represents the immediate area of the Shoshone Mountain Range in which the project area is located, bounded by major roads and drainages thereby representing the use area for wildlife species." The natural boundaries of the drainage and the boundaries of the major roads provide a representative area of use by species in the project area. It encompasses the resources of potential concern (leks, migratory bird buffers, etc.). The EA analyzed the potential for pygmy rabbit habitat at each site. It was determined that the project would have no effect on pygmy rabbits. The CEQ regulations define cumulative effects as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions...Since the project doesn't affect pygmy rabbits, there is no incremental effect to add to and the resource was therefore not carried forward for cumulative analysis.
61	PR36	WWP	22-Fe-16	1.3	4		**<u>Land Use Plan Conformance</u>** Please explain in more detail how these projects comply with the NV-CA ARMPA provisions at MD LG 13 and MD SSS 1-4, 9a, 10. Could these projects be avoided or minimized? What is the mitigation that BLM plans to offset the loss of habitat from this infrastructure? Are these projects subject to the 3% disturbance cap, and do they exceed it?	Please see the Sage-grouse form attached in this appendix. There is a list of the relevant management direction in the ARMPA and how the project will be in conformance with them. In addition BLM has revised section 1.3 to include more Management Decisions (MDs) and Required Design Features (RDFs) from the ARMPA.
62	PR37	WWP	22-Fe-16	1.3	4		MD SSS 11 requires use of the Sage-grouse fence collision risk tool. Why did BLM not include this mapping in the EA?	The GRSG collision risk tool was used during the analysis as stated in Section 3.13. The mapping is not included in the EA because it is entirely centered around the location of the leks. The lek locations are typically treated as proprietary information.
63	PR38	WWP	22-Fe-16	1.3	4		MD LG 1, 5 require consideration of a variety of alternative ways of protecting these areas. None of the alternatives discussed in these ARMPA management decisions require or even discuss using permanent fencing.	LGs 1 and 5 outline potential modifications, but also say BLM is not limitited to those suggestions. It does not prohibit the use of fencing.

Appendix B

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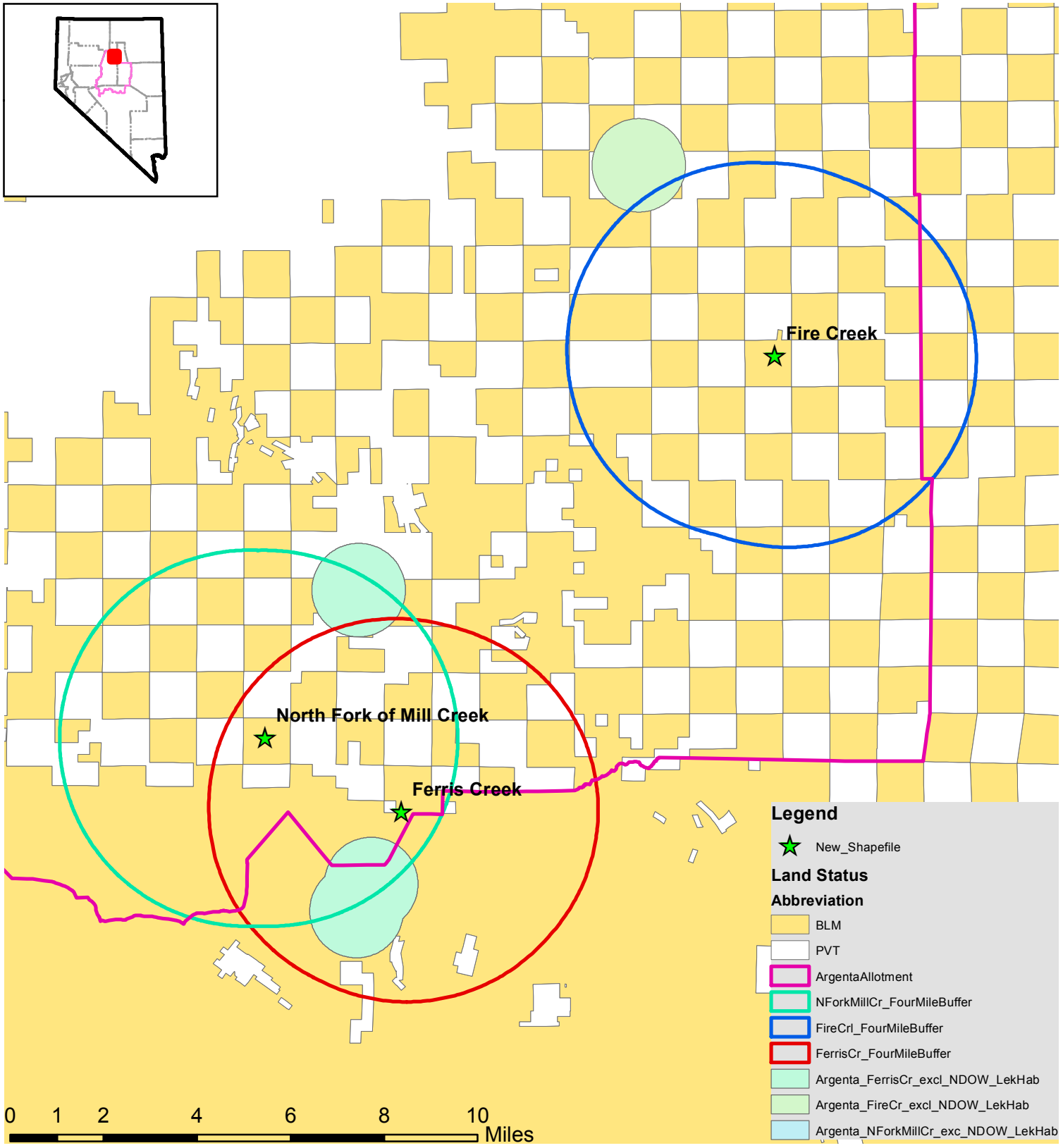

Seasonal Greater Sage-grouse Map: NDOW Lek Habitat

Date: 3/24/2016

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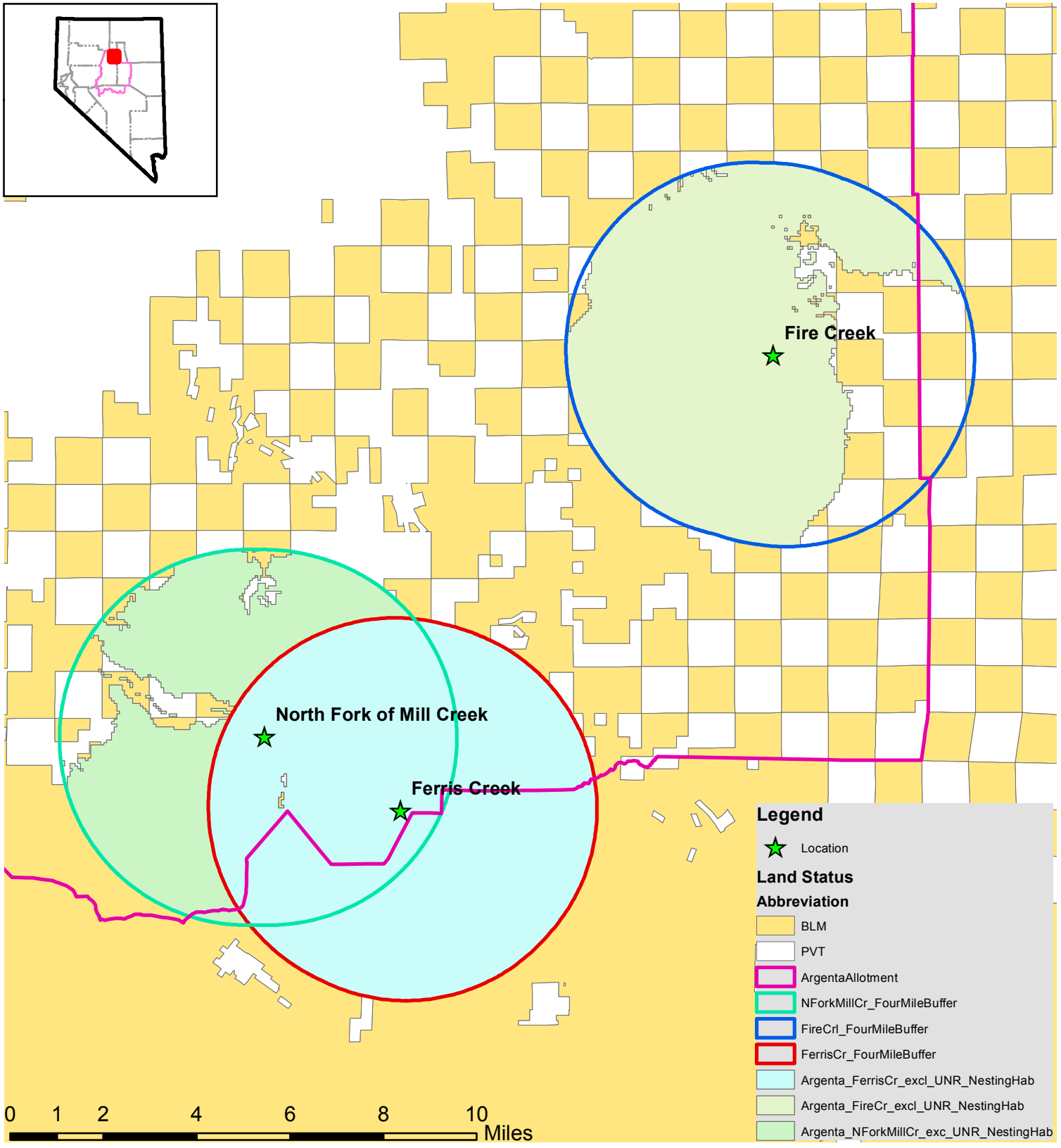
United States Department of the Interior
Bureau of Land Management
Battle Mountian District Office
Mount Lewiw Field Office
50 Bastian Road
Battle Mountain, NV 89820



Seasonal Greater Sage-grouse Map: UNR Nesting Habitat

Date: 3/24/2016

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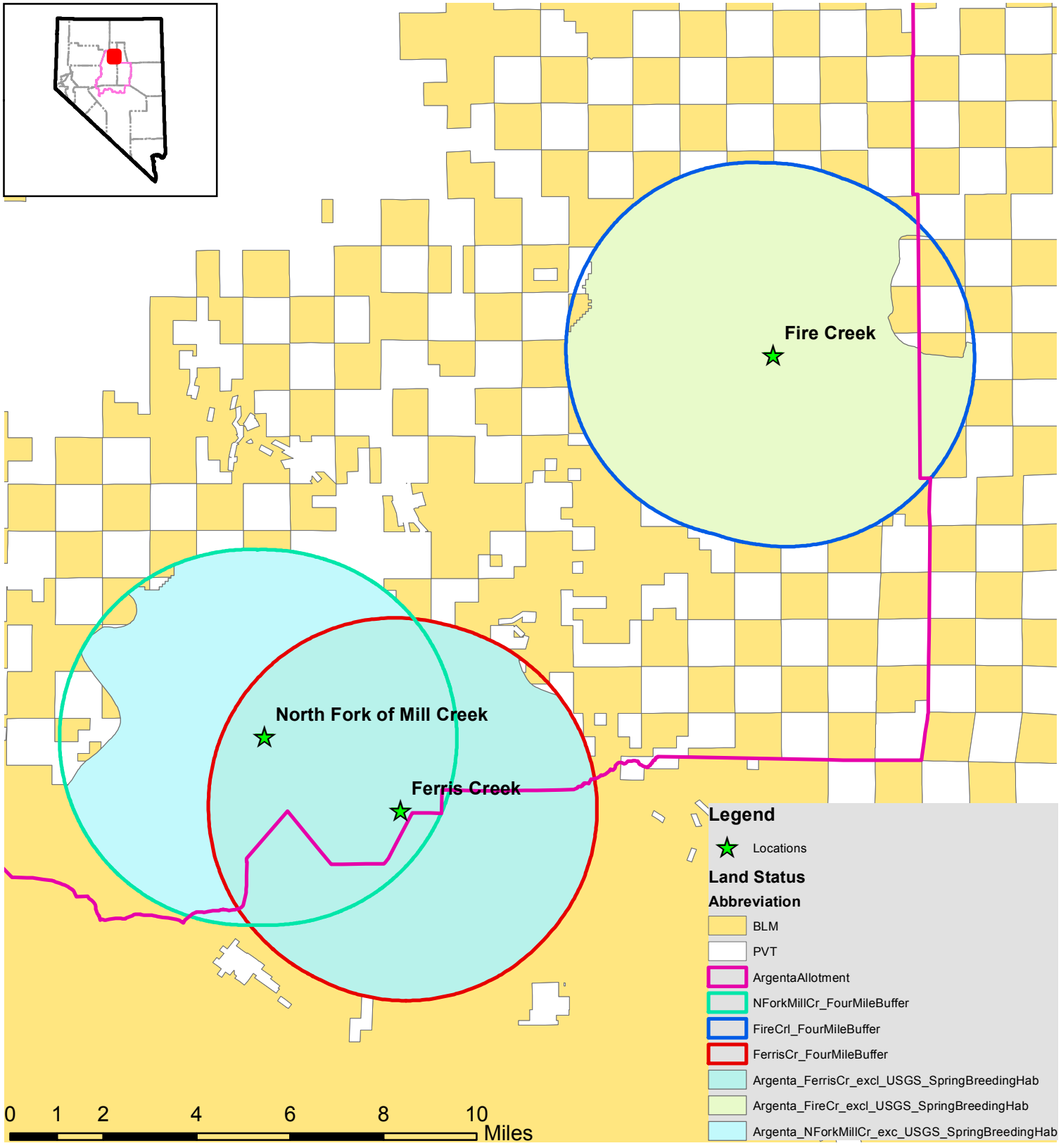

Seasonal Greater Sage-grouse Map: USGS Spring Breeding Habitat

Date: 3/24/2016

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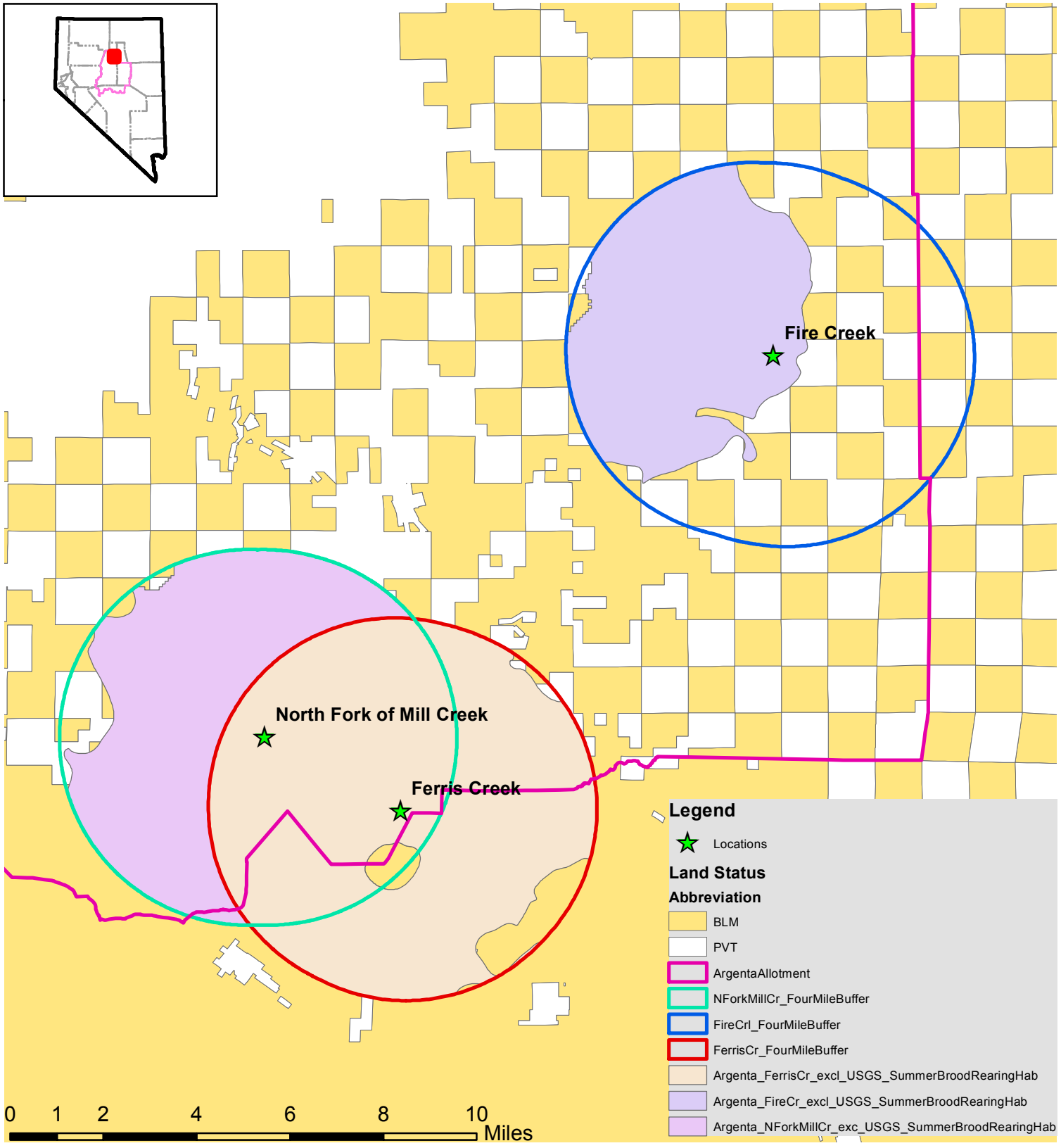

Seasonal Greater Sage-grouse Map: USGS Summer Brood Rearing Habitat

Date: 3/24/2016

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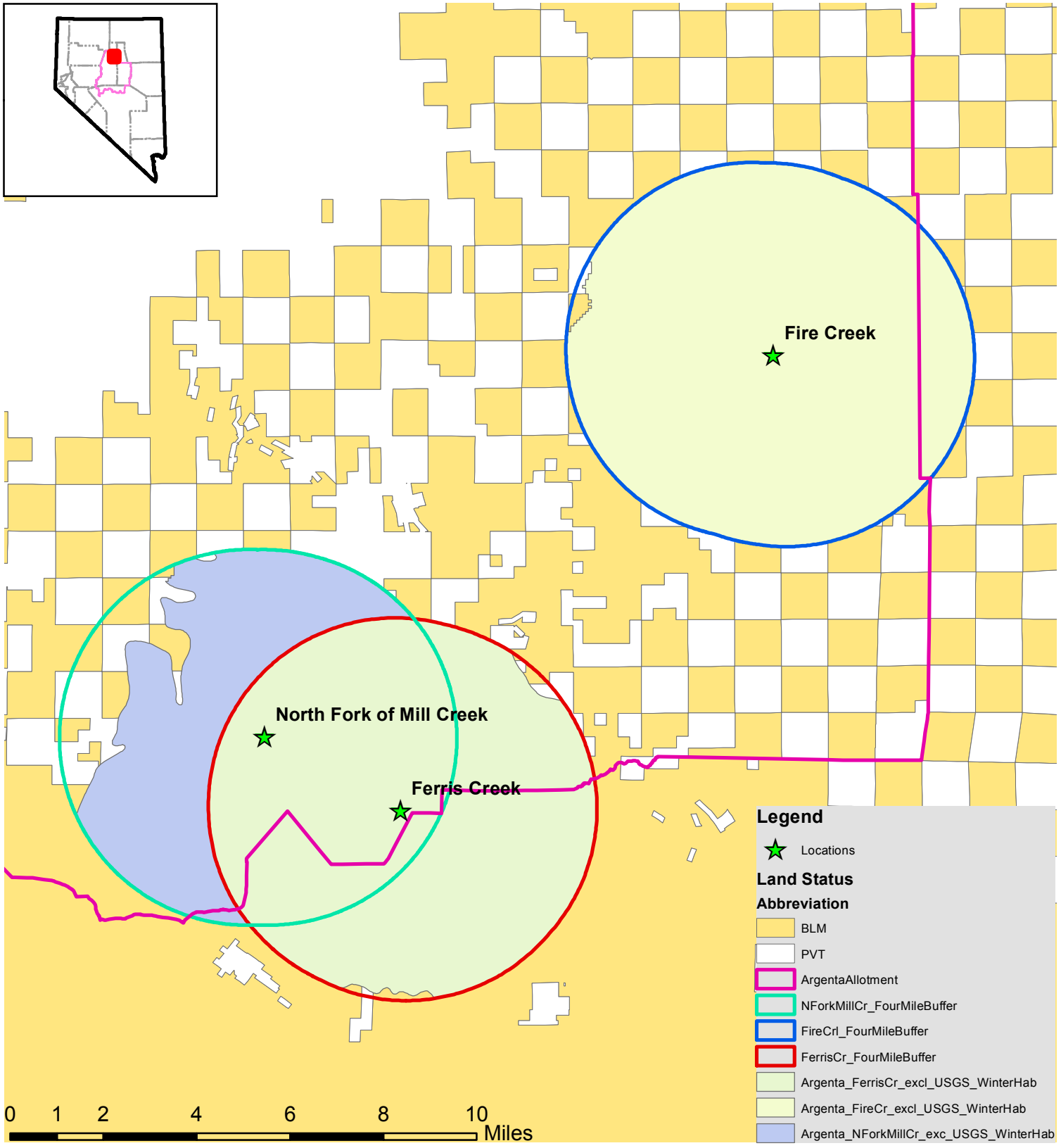

Seasonal Greater Sage-grouse Map: USGS Winter Habitat

Date: 3/24/2016

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Bureau of Land Management
Battle Mountian District Office
Mount Lewiw Field Office
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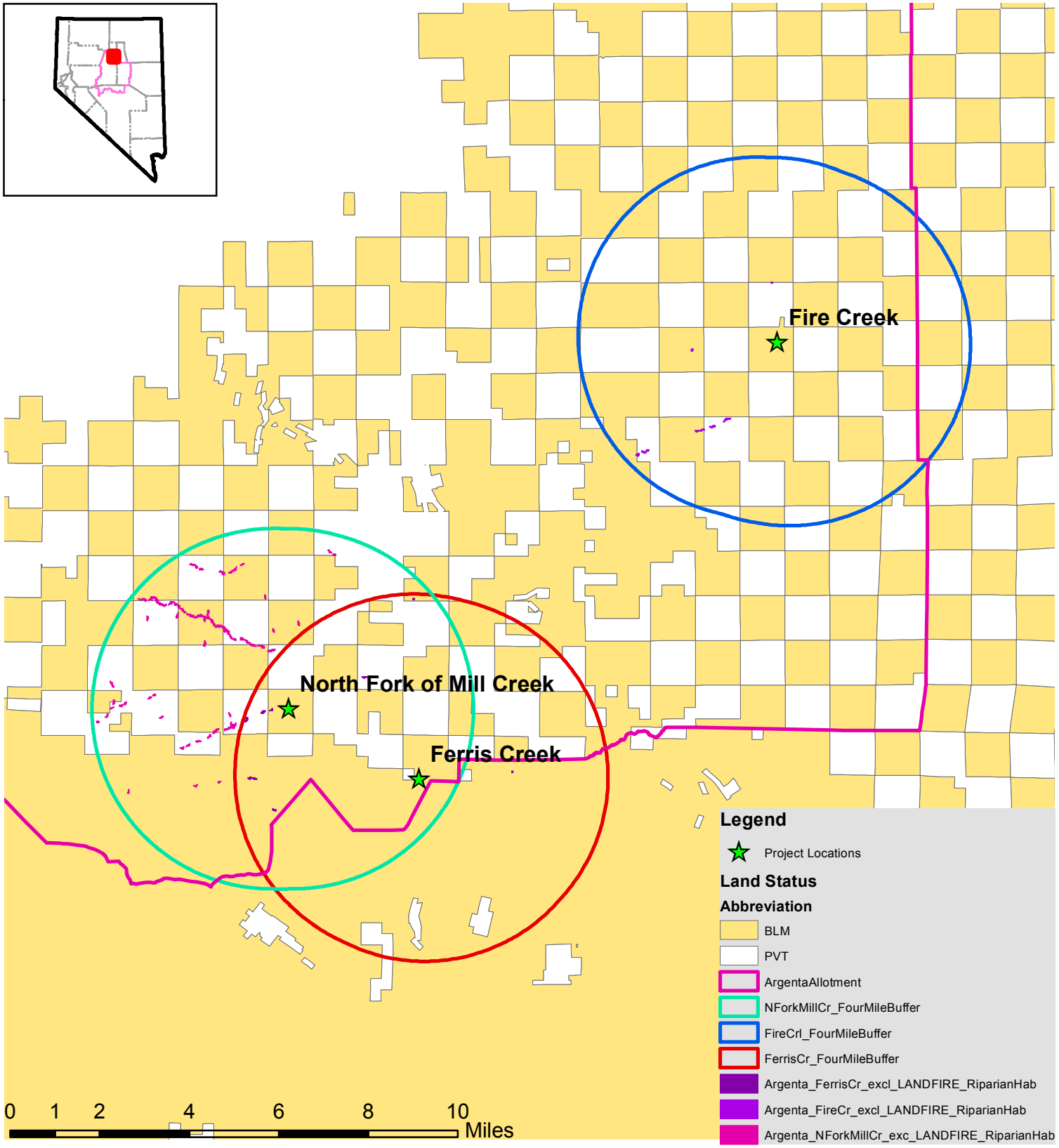
Battle Mountain, NV 89820



Seasonal Greater Sage-grouse Map: Landfire Riparian Habitat

Date: 3/24/2016

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50 Bastian Road
Battle Mountain, NV 89820

Proposed Activities in Greater Sage-Grouse Preliminary Habitat Areas

Name of Activity: Argenta Settlement Riparian Exclosures EA. DOI-BLM-NV-B010-2016-0008-EA	Date: 11/3/2015
District(s): Battle Mountain District	Field Office(s): Mount Lewis
Proponent: Bureau of Land Management	
BLM Project Lead/Biologist: Adam Cochran/William O'Neill	
Project Details:	
Location Coordinates (Attach Map File): Townships: 28N 46E sec 04, 29N 45E sec 36, 30N 47E sec 22	
Preliminary Habitat Designation: Preliminary Priority Habitat - ☒	Preliminary General Habitat - ☒

Activity Description: As part of the Argenta Settlement Agreement with recommendations from the National Riparian Service Team, three riparian exclosures are proposed on the Argenta Allotment for Ferris Creek, the North Fork of Mill Creek, and Fire Creek. The fences will be constructed primarily of jack rail fencing but where jack rail fencing is not feasible, barbed wire will be used.

The proposed riparian exclosures are consistent with MD's SSS 1-4 of the Greater Sage-Grouse (GRSG) Record of Decision and Approved Resource Management Plan Amendment (ARMPA). The riparian exclosures will follow MD LG 14 and MD LG 23 of the greater sage-grouse ARMPA. MD LG 14 states that "exclosures will be large enough to provide cover for GRSG and reduce the possibility of wildlife collisions with fences." MD LG 23 states "fences shall not be constructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings." The proposed three exclosures are over 1.2 miles from leks and will be designed large enough to provide cover for GRSG. By utilizing jack rail pipe fencing, and for barbed wire fencing, GRSG fence markers and a smooth bottom wire, these exclosure designs and measures will prevent GRSG and other wildlife collisions.

Level of Proposed Disturbance:

- Acres Disturbed: The representative acres for the three riparian exclosures based on the total length of fencing and factoring in a two foot width buffer along the fence line is 1.2 acres (5 miles of total fencing = 26,400ft. 26,400ft x 2ft = 52,800 sq ft. 52,800 sq ft = 1.2 acres). Jack rail pipe fencing is not considered a ground disturbing activity. The barbed wire fence perimeter is considered disturbance as the fence t-posts will need to be pounded into the ground. The total perimeter for each exclosure is as follows: Fire Creek Exclosure is estimated between 1.9 to 2.5 miles, Ferris Creek Exclosure is 0.8 miles and North Fork of Mill Creek Exclosure is estimated between 1.7 and 2.0 miles of fencing.
- Noise and Activity Level: N/A

Existing Level Of Disturbance:

- Acres Disturbed: There is an active underground mine near where the proposed Fire Creek exclosure is going.
- Noise and Activity Level: N/A

Mitigation:

- Past Mitigation Measures for Sage-grouse in project area: There are no past mitigation measures for greater sage-grouse near the proposed exclosures.
- Applicant Proposed Design Measures/Mitigation Measures: Wildlife friendly jack rail pipe fencing will be installed where feasible. Jack rail installation involves no ground disturbance and provides safe ingress and egress for greater sage-grouse and other wildlife. If barbed wire

fencing is needed, the top barb will be flagged with sage-grouse fence markers and the fourth or bottom wire of the fence will be smooth so wildlife can safely go underneath without being injured.

Coordination with NDOW:

Contact:
Steve Foree, 775-777-2306 Steve Foree 11/9/15

NDOW concurs that the proposed activity with associated mitigation measures cumulatively maintain or enhance Greater Sage-grouse habitat in PPH and reduces and mitigates adverse effects on Greater Sage-grouse and its habitat in PGH.

Yes - ☒ **No -** ☐ **Explain what is preventing agreement. This will be elevated to the State Directors for BLM and NDOW to resolve.**

Remarks:

District/Field Outcome:

Defer Activity - ☐ **Proposed activity is in compliance with IM-2012-043 and can proceed –** ☒

Managers Signature/Title: Rachel Varney AFM Range/Wildlife **Date:** 11/10/15

Comments:

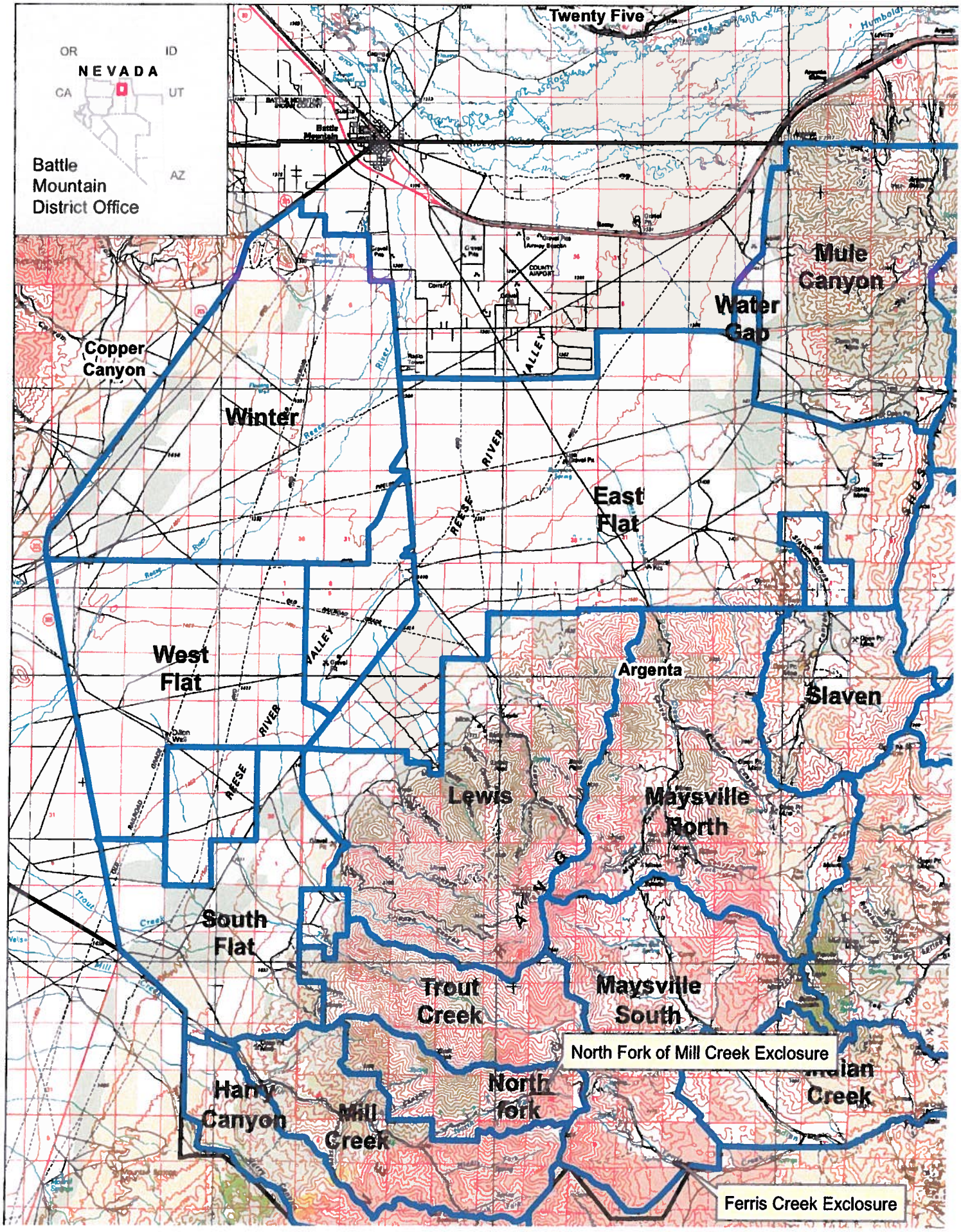
Nevada State Office Outcome:

Defer Activity - ☐ **Proposed activity is in compliance with IM-2012-043 and can proceed -** ☐

Signature/Title: Kimberly O. Dow Branch Chief, Renewable Resources **Date:** 12/17/15

Comments:

Argenta Settlement All 3 Proposed Exclo



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Nevada State Office
1340 Financial Boulevard
Reno, Nevada 89502-7147
http://www.blm.gov/nv

In Reply Refer To:

December 16, 2015

To: Sandra Brewer, Nevada Wildlife and T&E Species Program Lead

From: Kathryn Dyer, Nevada Range Program Lead

Subject: Proposed Activities in Greater Sage-Grouse Preliminary Habitat Areas

Name of Activity: Argenta Settlement Riparian Exclosures EA

District: Battle Mountain

BLM Project Lead/Biologist: Adam Cochran/William O'Neill

Sage-Grouse habitat associated: Priority Habitat Management Area (PHMA), General Habitat Management Area (GHMA)

The applicable citations from the Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment (ARMPA) would apply in the planning and implementation of this project.

MD SSS 2: E. Seasonal restrictions will be applied during the period specified below to manage discretionary surface-disturbing activities and uses on public lands to prevent disturbances to GRSG during seasonal life-cycle periods:
1. In breeding habitat within 4 miles of active and pending GRSG leks from March 1 through June 30
   a. Lek—March 1 to May 15
   b. Lek hourly restrictions—6 p.m. to 9 a.m.
   c. Nesting—April 1 to June 30

MD SSS 2 Compliance: There are several leks approximately 1.2 miles from the project location. These projects will be constructed at a season/time compatible with the above seasonal requirements.

MD SSS 3: In GHMAs, the following conditions will be met in order to avoid, minimize, and mitigate any effects on GRSG or its habitat from the project/activity:
A. In GHMAs, in undertaking BLM management actions, and consistent with valid existing rights and applicable law, in authorizing third-party actions that result in habitat loss and degradation, the BLM will require and ensure mitigation that provides a net conservation gain to the species, including accounting for any uncertainty associated with the effectiveness of such mitigation. The project/activity with associated mitigation (such as the use of the State of Nevada

Conservation Credit System) in GHMAs will result in an overall net conservation gain to GRSG (see Appendix F, Regional Mitigation Strategy).
B. Authorized/permitted activities are implemented adhering to the RDFs described in Appendix C, consistent with applicable law. At the site-specific scale, if an RDF is not implemented, at least one of the following must be demonstrated in the NEPA analysis associated with the project/activity:
1. A specific RDF is documented to not be applicable to the site-specific conditions of the project/activity (e.g., due to the site limitations or engineering considerations). Economic considerations, such as increased costs, do not necessarily require that an RDF be varied or rendered inapplicable.
2. An alternative RDF is determined to provide equal or better protection for GRSG or its habitat.
3. A specific RDF will provide no additional protection to GRSG or its habitat.
MD SSS 3 Compliance: In the NEPA associated with permitting the maintenance of the projects, any RDFs that are not required will be addressed as to why they are not implemented.

MD SSS 11: Design and construct fences consistent with BLM H-1741-1, Fencing Standards Manual (BLM 1990), and apply the Sage-Grouse Fence Collision Risk Tool to Reduce Bird Strikes (NRCS 2012). Bring existing fencing into compliance as opportunities arise.
MD SSS 11 Compliance: The proposed fences will be constructed consistent with BLM H-1741-1, and fence markers will be incorporated.

MD LG 13: For range improvement projects, review Objective SSS 4 and apply MDs SSS 1 through SSS 4 when reviewing and analyzing projects and activities proposed in GRSG habitat.
MD LG 13 Compliance: MD SSS 1-4 will be incorporated as noted above.

MD LG 14: Build or modify livestock exclosures so that they are large enough to provide hiding cover to GRSG and other wildlife and to reduce the possibility of wildlife collisions with fences (Christiansen 2009; Stevens 2011; NRCS 2012).
MD LG 14 Compliance: The proposed fences will be constructed consistent with BLM H-1741-1, and fence markers will be incorporated. The fences will be jack rail and barbed wire and will be large enough to ensure minimal impacts to wildlife species, including GRSG.

MD LG 23: Fences shall not be constructed or reconstructed within 1.2 miles from the perimeter of occupied leks, unless the collision risk can be mitigated through design features or markings (e.g., mark, laydown fences, and design).
MD LG 23 Compliance: The proposed fences will be constructed consistent with BLM H-1741-1, and fence markers will be incorporated. The fences will be majorly comprised of jack rail, and any barbed wire component will contain fence markers to mitigate collision risk.

RDF Gen 12: Control the spread and effects of nonnative, invasive plant species (e.g., by washing vehicles and equipment, minimize unnecessary surface disturbance; Evangelista et al. 2011). All projects would be required to have a noxious weed management plan in place prior to construction and operations.
RDF Gen 12 Compliance: In the NEPA associated with permitting the maintenance of the projects, any necessary washing of machinery/tools will be addressed/required.

Finding of Compliance: The proposed projects on the Argenta Allotment have been reviewed for compatibility with the GRSG Plan Amendment. All applicable MD are (will be through NEPA) appropriately addressed to ensure positive habitat outcomes for GRSG.