

**PRELIMINARY
ENVIRONMENTAL ASSESSMENT
DOI-BLM-NV-B010-2015-0074-EA**

**Tonkin Summit
Wireless Communication Tower Project**



May 2016

**U.S. Bureau of Land Management
Mount Lewis Field Office
Battle Mountain District
50 Bastian Road
Battle Mountain, Nevada 89820-2332**



It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

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**COMMNET OF NEVADA LLC
TONKIN SUMMIT
WIRELESS COMMUNICATION TOWER PROJECT
EUREKA COUNTY, NEVADA**

Preliminary
Environmental Assessment
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PRELIMINARY ENVIRONMENTAL ASSESSMENT

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LIST OF ACRONYMS AND ABBREVIATIONS

°	degrees
4WD	four-wheel drive
amsl	above mean sea level
APE	area of potential effect
ARMPA	Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment and Record of Decision – September 2015
ARPA	Archaeological Resources Protection Act of 1979
ASA	Avian Survey Area
AUMs	animal unit months
BAPC	Bureau of Air Pollution Control
BLM	Bureau of Land Management
BMPs	best management practices
BSA	Botanical Survey Area
CAA	Clean Air Act
CCS	crypto-crystalline silicate
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)
CESAs	cumulative effects study areas
CFR	Code of Federal Regulations
CO	carbon monoxide
Commnet	Commnet of Nevada LLC
EA	Environmental Assessment
EO	Executive Order
EPMs	environmental protection measures
ESA	Endangered Species Act of 1973, as amended
ESD	ecological site description
F	Fahrenheit
FCC	Federal Communications Commission
FLPMA	Federal Land Policy and Management Act of 1976
GHGs	greenhouse gases
GRSG	Greater sage-grouse
HFRA	Healthy Forests Restoration Act of 2003
HMA	Herd Management Area
LR2000	Land & Mineral Legacy Rehost 2000 System
MBTA	Migratory Bird Treaty Act of 1918
MD	Management Decision
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 of 1990
NDOA	Nevada Department of Agriculture
NDEP	Nevada Division of Environmental Protection
NDOW	Nevada Department of Wildlife
NEPA	National Environmental Policy Act of 1969

NNHP	Nevada Natural Heritage Program
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSAAQS	Nevada State Ambient Air Quality Standards
O ₃	ozone
OHMA	Other Habitat Management Area
OHV	off-highway vehicle
P.L.	Public Law
PM _{2.5}	particulate matter less than 2.5 microns in size
PM ₁₀	particulate matter less than 10 microns in size
POD	Plan of Development
Project	Tonkin Summit Wireless Communication Tower Project
Protocol	State Protocol Agreement between the Bureau of Land Management and the Nevada State Historic Preservation Office as amended through December 2014
PSD	Prevention of Significant Deterioration
RDF	Required Design Feature
REA	Rapid Ecoregional Assessment
RFFAs	reasonably foreseeable future actions
ROW	right-of-way
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO ₂	sulfur dioxide
TCPs	Traditional Cultural Properties
US	United States
USC	United States Code
USFWS	United States Fish and Wildlife Service
VRM	visual resource management
WRC	Wildlife Resources Consultants
WRCC	Western Regional Climate Center
WSA	Wildlife Survey Area
WSAs	wilderness study areas

**TONKIN SUMMIT
WIRELESS COMMUNICATION TOWER PROJECT
PRELIMINARY ENVIRONMENTAL ASSESSMENT**

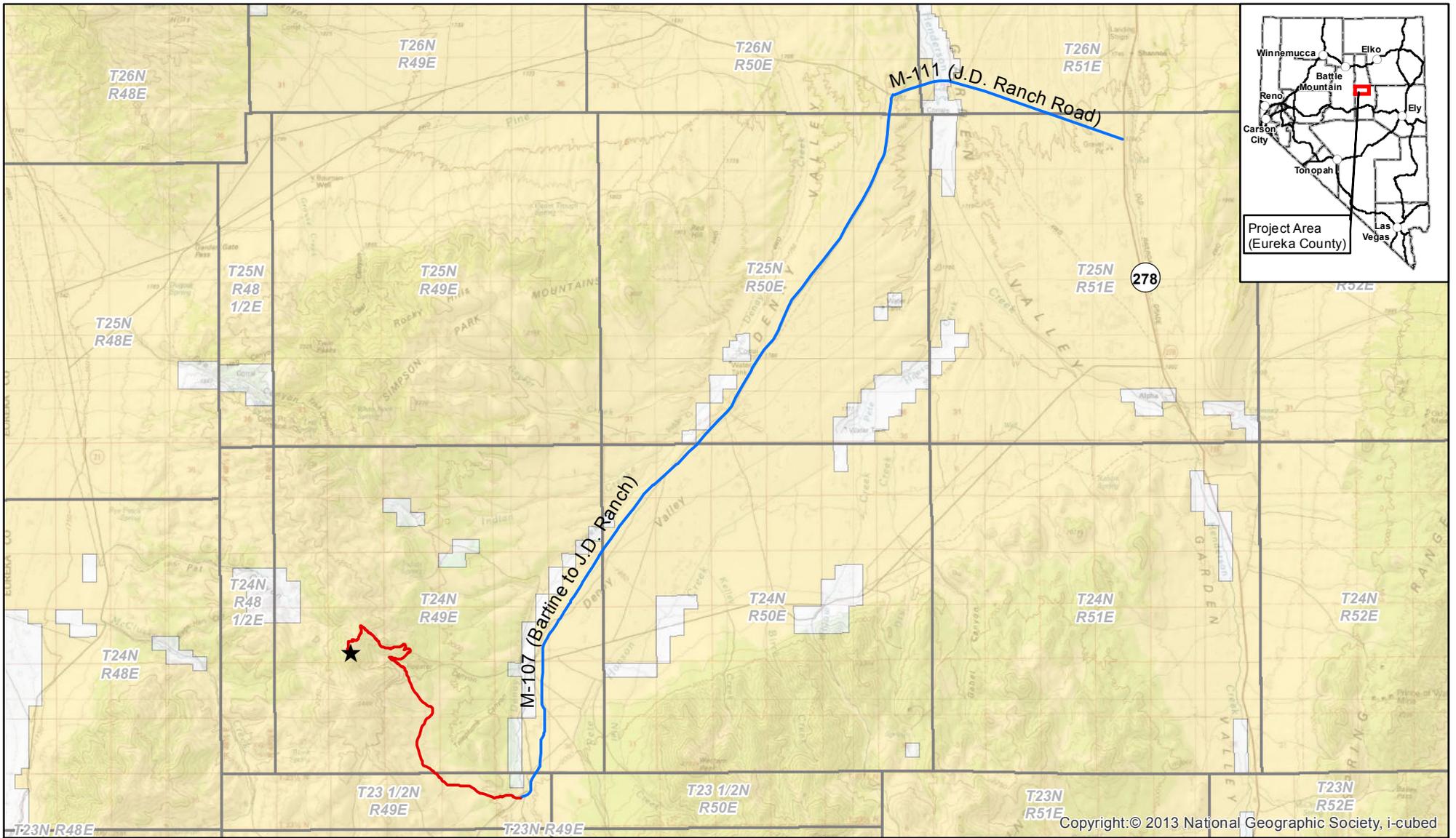
1 INTRODUCTION / PURPOSE OF AND NEED FOR ACTION

1.1 Introduction

Commnet of Nevada LLC (Commnet) proposes a wireless communication tower and associated access road at the Tonkin Summit Wireless Communication Tower Project (Project) located in north-central Nevada approximately 60 miles northwest of Eureka, in Eureka County, Nevada. The Project is located on public lands administered by the Bureau of Land Management (BLM), Mount Lewis Field Office (MLFO). The Project is located in part of Section 20, Township 24 North, Range 49 East (T24N, R49E), Mount Diablo Base and Meridian (Project Area). The Project is accessed from Eureka by traveling 3.3 miles northwest on United States (US) Highway 50, turning north-northwest onto Nevada State Route 278, then after approximately 40 miles, turning northwest onto J D Ranch Road, traveling northwest and southwest for approximately 20 miles, then turning west onto the access road by the Tonkin Mine and traveling approximately seven miles to the Project Area. Figure 1.1.1 shows the Project location, access, and land status.

A Plan of Development (POD) was submitted to the BLM in July 2015 along with BLM Form SF-299 (1/2006) Application for the Transportation and Utility Systems and Facilities on Federal Lands. A revised SF-299 Form and POD were submitted in February 2016. Commnet is requesting a 30-year right-of-way (ROW) grant for an upgrade to approximately 748 linear feet of a 20-foot wide existing partially reclaimed access road, and a 100-foot by 100-foot wireless communication tower site on public land, for a total of approximately 0.5 acre. The ROW would also grant use of an existing road for access, approximately 6.8 miles long and 12 feet wide. Five specific areas along the access road would need to be improved for safe construction vehicle passage (Road Improvement Zones) and total approximately 1.4 acres (Figure 1.1.2). The total surface disturbance associated with this ROW is approximately 1.9 acres. Disturbance outside the ROW is not anticipated; however, any incidental disturbance that may occur would be reclaimed immediately and reported to the BLM.

The Project is being proposed as part of Commnet's efforts to meet the Federal Communications Commission (FCC) Mobility Fund obligations. The Mobility Fund Phase I Auction offered support to wireless communication carriers that committed to providing advanced mobile voice and broadband services in areas where services were unavailable. The FCC defined qualifying road miles (currently uncovered roads) within each census tract in qualifying counties and allowed carriers to place a bid to cover those roads with third generation (often called "advanced" or "3G") service within two years. Winning bidders were required to provide coverage to a minimum of 75 percent of the eligible road miles within each census tract identified. Eligible road miles in Eureka County totaled approximately 729 miles, and eligible road miles in Lander County totaled approximately 994 miles. Commnet submitted an extension with the FCC, which was granted for only one year through an upgrade from "3G" service to fourth generation ("4G") service. Figure 1.1.3 shows the Tonkin Summit wireless communication tower coverage area.



Explanation

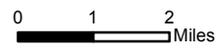
- ★ Project Area
- ROW Route
- Proposed Access Route

- Land Status**
- Bureau of Land Management
 - Private


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TONKIN SUMMIT
WIRELESS COMMUNICATION TOWER
PROJECT
Project Location, Access,
and Land Status



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Figure 1.1.1
 04/22/2016



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Explanation

-  Project Area
-  Road Improvement Zones
-  ROW Route



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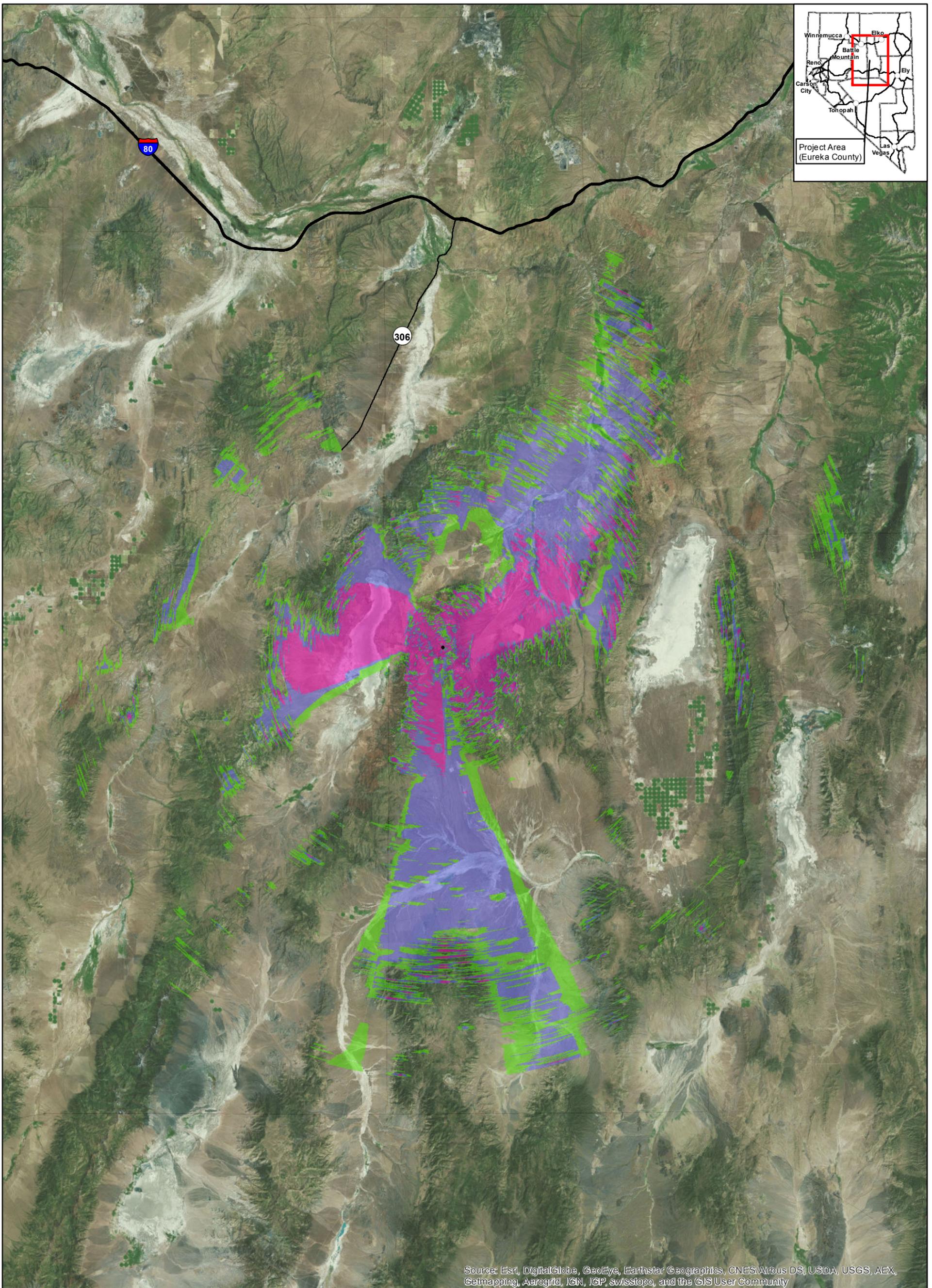
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Road Improvement Zones

Figure 1.1.2
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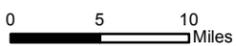
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Explanation

Project Area

RF Signal

- Fair to Poor In-Building and Fair In-Vehicle Road Coverage
- Good In-Building and In-Vehicle Road Coverage
- Excellent In-Building and In-Vehicle Road Coverage



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 PROJECT

**Communication Tower
 Coverage Area**

Figure 1.1.3

04/22/2016

1.2 Purpose of and Need for Action

As authorized by the Federal Land Policy and Management Act of 1976 (FLPMA), the BLM issues ROW grants for roads, trails, powerlines, communication towers and other facilities that are in the public interest. The purpose and need for BLM's action is to determine whether to issue a ROW to develop the proposed communication system and if so under what conditions.

1.3 BLM Responsibilities and Relationship to Planning

The BLM is responsible for the preparation of this Environmental Assessment (EA), which was prepared in conformance with the National Environmental Policy Act of 1969 (NEPA), applicable laws and regulations passed subsequently, including the President's Council on Environmental Quality regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500-1508), US Department of the Interior requirements, and the policy guidance provided in the BLM NEPA Handbook H-1790-1 (BLM 2008a).

1.3.1 Conformance with Land Use Plans

The Proposed Action conforms with the Management Action and Objectives in BLM's 1986 Shoshone-Eureka Resource Management Plan, as amended (BLM 1986a) and the September 2015 Nevada and Northeastern California Greater Sage-Grouse Approved Resource Management Plan Amendment and Record of Decision (ARMPA) (see EA Section 2.1.8). The entire Project Area is located in an area identified as Other Habitat Management Area (OHMA), defined as containing seasonal or connectivity habitat areas for greater sage-grouse (GRSG). Project activities are required to comply with all ARMPA management decisions.

1.4 Local Land Use Planning and Policy

The Eureka County 1973 Master Plan, updated in 2000 and again in 2010, contains a description of land uses, restrictions on development, and recommendations for future land use planning. The Natural Resources and Federal or State Land Use Element was developed and included in the Master Plan in response to Nevada Senate Bill 40, which was passed in 1983, and directs counties to develop plans and strategies for resources that occur within lands managed by federal and state agencies. Policies within the Eureka County Master Plan support the construction of utility infrastructure necessary for business and recreational activity (Eureka County 2010).

The Natural Resources and Land Use Element, included in the Eureka County Master Plan, outlines objectives for natural resource management and land use on federal and state administered lands in Eureka County. This land use element states that it is designed to accomplish the following: "1) protect the human and natural environment of Eureka County; 2) facilitate federal agency efforts to resolve inconsistencies between federal land use decisions and County policy; and 3) provide strategies, procedures, and policies for progressive land and resource management" (Eureka County 2010).

1.5 Scoping and Issues

Internal scoping for the Project by the BLM interdisciplinary team occurred at a meeting held on November 16, 2015, at the BLM office in Battle Mountain. During this meeting, BLM personnel identified the elements associated with supplemental authorities and other resources and uses to be addressed in this document in Chapter 3.

Through internal scoping, the following issues were identified with regard to the Proposed Action:

- What effects to migratory birds and their habitat would result from Project activities?
- What effects would occur to Native American Tribes and sites considered sacred by the Tribes by Project activities?
- How would Project activities affect noxious weeds, invasive and non-native species?
- How would soils be affected by Project activities?
- What effects to special status species and their habitat would result from Project activities?
- What effects to vegetation would result from Project activities?
- What effects to wildlife and their habitat would result from Project activities?

2 DESCRIPTIONS OF THE PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action

The Proposed Action consists of a 20-foot wide upgrade to approximately 748 linear feet of an existing partially reclaimed access road, a 100-foot by 100-foot wireless communication tower site, and approximately five Road Improvement Zones, or five areas along the existing access road that would need to be widened. The total surface disturbance associated with this ROW is approximately 1.9 acres. The ROW would also grant use of an existing access road, approximately 6.8 miles long and 12 feet wide. Temporary disturbance outside the ROW is not anticipated; however, any incidental disturbance that may occur would be reclaimed immediately and reported to the BLM.

The wireless communication tower site would include the following elements: a 20-foot by 20-foot “Lite-Site” foundation; three equipment cabinets; a hybrid power system comprised of solar panels and a backup generator; a liquefied petroleum gas tank; and an 80-foot tall monopole with a microwave dish antenna, six panel antennas, and six tower-mounted remote radio units (Figure 2.1).

2.1.1 Equipment

Commnet anticipates the following types of equipment would be used at the Project:

- Up to two Case 450B front-end loaders or rock hammers;
- One small boom truck or crane; and
- Up to five four-wheel drive (4WD) pick-up trucks.

2.1.2 Work Force

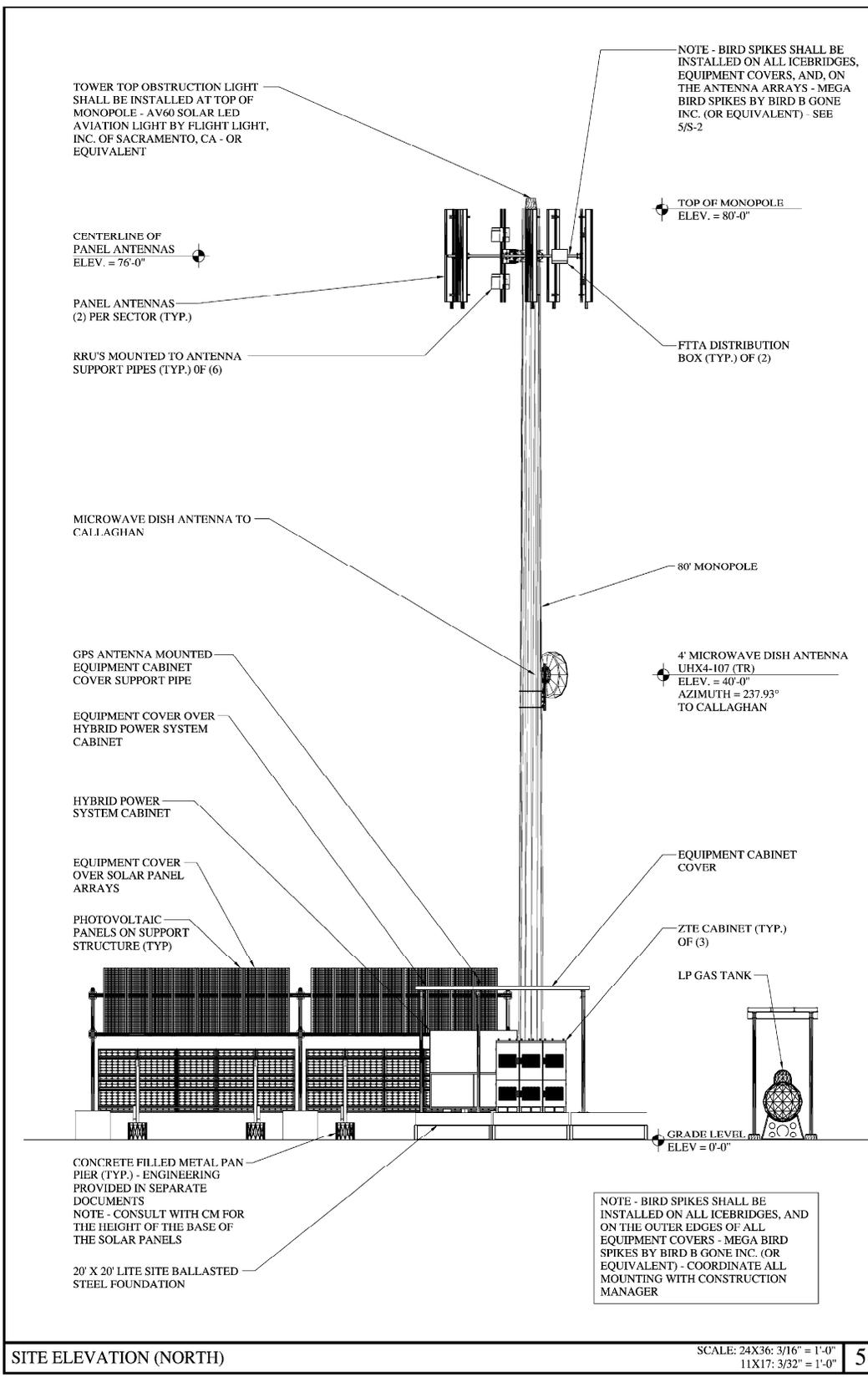
The construction crew would consist of up to ten people. Construction activities, including installation, would take up to 60 days and would be performed seven days a week during daylight hours. This time frame may change due to inclement weather. A maintenance crew would consist of up to three people, and maintenance activities would occur once a month for routine maintenance, and as necessary during emergencies.

2.1.3 Tower Construction

Prior to the installation of the wireless communication tower, a 100-foot by 100-foot site would be cleared, leveled, and covered with gravel. The proposed wireless communication tower would be a “Lite-Site” facility, which is a self-contained wireless site consisting of a base frame, pole, and antenna mounts. A 20-foot by 20-foot ballasted steel base frame would be placed on top of the gravel. The base frame has attachment points for the pole, electronic cabinets and grounding system. The pole would be assembled horizontally then lifted with a small boom truck or crane.

2.1.4 Road Construction

The Project includes the upgrade of an existing partially reclaimed road approximately 748 feet long, with a 20-foot wide running surface including a safety berm as necessary. If the road requires earth-moving, the road would be constructed using typical construction practices for roads to minimize surface disturbance, erosion, and visual contrast, as well as to facilitate



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PROJECT

Communication Tower and Facilities

Figure 2.1

05/03/2016

reclamation. Road construction would be implemented using a front-end loader, or equivalent equipment. Road grades would be no steeper than ten percent, in order to be consistent with the BLM roads manual. Storm water best management practices (BMPs) would be used at the construction sites to minimize storm water erosion.

Balanced cut and fill construction would be used to the extent practicable to minimize the exposed cut slopes and the volume of fill material. Since the depth of cut would be kept to a minimum, growth media removed during construction would be stockpiled as the fill slope to be used during reclamation. Trees removed during the construction of the road would be stockpiled and used for slope stabilization and to act as water bars. Road construction within drainages would be avoided whenever possible. When drainages must be crossed with a road, BMPs established in the Nevada Contractors Field Guide for Construction Site Best Management Practices (2008) would be followed to minimize the surface disturbance and erosion potential. Culverts would generally not be installed in the road bed; however, if a culvert is necessary, the placement and size would be approved by the BLM.

Maintenance of the constructed road would include minor seasonal regrading and reestablishment of water bars as necessary, as outlined in BLM Manual 9113. Erosion control would be monitored in the spring and fall, or after any significant precipitation event. Maintenance of the constructed road would not increase the surface disturbance within the Project Area and would consist of smoothing rutted surfaces and holes. If road gravel is necessary to improve some of the roads in the area, the gravel would be obtained from a BLM-approved source. The gravel would be placed on the road by a dump truck and smoothed by a front-end loader.

2.1.5 Solid and Hazardous Materials

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.

Hazardous materials utilized at the Project during construction and/or maintenance activities would include diesel fuel and gasoline. 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 Department of Transportation regulations. In the event hazardous or regulated materials are spilled, measures would be taken to control the spill, and the BLM, the Nevada Division of Environmental Protection (NDEP), and the Emergency Response Hotline would be notified as required. Any hazardous substance spills would be cleaned up immediately and any resulting waste transferred off site in accordance with all applicable local, state, and federal regulations. Contract construction crews would maintain spill kits on site for use in case of a spill.

2.1.6 Reclamation

Disturbance outside of the ROW is not anticipated. However, in the event that incidental disturbance outside of the ROW does occur, Commnet would reclaim any disturbance outside of the ROW to pre-construction conditions. Reclamation for incidental disturbance outside the ROW would include recontouring of impacted areas to pre-construction conditions. Following

recontouring, any disturbed areas outside of the ROW would be seeded with a BLM-approved certified weed-free seed mix at the appropriate time of year and at an application rate for optimum seed sprouting and plant growth. A BLM-approved certified weed-free seed mix would be developed based on known soil and vegetative conditions, and would be selected to establish a plant community that would support the post-construction land use. The mix would be designed to promote plant species that can exist in the environment of northeastern Nevada, are proven species for revegetation, or are native species found in the plant communities prior to disturbance. The seeding would be completed using a broadcast method and then raked, or as otherwise directed by the BLM. Seeded areas would be monitored for stability and revegetation success according to BLM specifications. Any salvaged vegetation would be planted according to BLM specifications.

2.1.6.1 Handling of Topsoil

Soils capable of serving as growth media would be salvaged and stockpiled as part of the fill slope of the road. In addition to the soils, as much of the organic matter as possible would be salvaged to minimize compaction and promote aeration. No independent growth media or soil stockpiles would be constructed as part of the Project. Soil amendments are not considered necessary in those areas where sufficient growth media are available.

2.1.7 Applicant-Committed Environmental Protection Measures

Commnet would commit to the following environmental protection measures (EPMs) to prevent unnecessary or undue degradation during construction, operation, and reclamation of the Project.

Air Quality

- During Project construction, prudent vehicle speeds would be maintained and surface application of water from a water truck would be used to minimize fugitive dust created by vehicles on travel routes.

Cultural Resources

- Pursuant to 43 CFR 10.4(g), Commnet would notify the BLM-authorized officer, by telephone, and with written confirmation, immediately upon the discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony (as defined in 43 CFR 10.2). Further pursuant to 43 CFR 10.4, the operator would immediately stop all activities in the vicinity of the discovery and not commence again until a notice to proceed is issued by the BLM-authorized officer.
- Commnet would inform all field personnel of the Archaeological Resources Protection Act of 1979 (ARPA) and the Native American Graves Protection and Repatriation Act of 1990 (Public Law [P.L.] 101-601) (NAGPRA) responsibilities and their associated penalties.
- Any cultural resource discovery by Commnet, or any person working on their behalf, during the course of activities on federal land would be immediately reported to the authorized officer by telephone, with written confirmation. The permit holder would suspend all operations in the immediate area of such discovery and protect it until an

evaluation of the discovery can be made by the authorized officer. This evaluation would determine the significance of the discovery and what mitigation measures are necessary to allow activities to proceed. Commnet would be responsible for the cost of evaluation and mitigation. Operations would resume only upon written authorization to proceed from the authorized officer.

- Commnet would not knowingly disturb, alter, injure, or destroy any scientifically important paleontological deposits. In the event that previously undiscovered paleontological resources are discovered by Commnet in the performance of any surface disturbing activities, the item(s) or condition(s) would be left intact and immediately brought to the attention of the authorized officer of the BLM. If significant paleontological resources are found, avoidance, recordation, and/or data recovery would be required.

Erosion and Sediment Control

- To minimize erosion from storm water runoff, the access road would be maintained consistent with the BMPs applicable to development roads. BLM storm water BMPs would be followed, as applicable.

Fire Management

- All applicable state and federal fire laws and regulations would be complied with and all reasonable measures would be taken to prevent and suppress fires in the Project Area.
- In the event the proposed Project activities start or cause a wildland fire, Commnet would be responsible for all the costs associated with the suppression. The following precautionary measures would be taken to prevent and report wildland fires:
 - All vehicles would carry fire extinguishers and a minimum of ten gallons of water;
 - Adequate fire-fighting equipment (i.e., shovel, Pulaski, extinguishers), and a minimum ten gallons of water would be kept at the communication tower site;
 - Vehicle catalytic converters would be inspected often and cleaned of brush and grass debris;
 - Wildland fires would immediately be reported to the BLM Central Nevada Interagency Dispatch Center at (775) 623-3444. Information reported would include the location (latitude and longitude if possible), fuels involved, time started, who or what is near the fire, and the direction of fire spread; and
 - When conducting operations during the months of May through September, the BLM Battle Mountain District Office, Division of Fire and Aviation would be contacted at (775) 635-4000 to determine if any fire restrictions are in place for the Project Area and to provide approximate beginning and ending dates for Project activities.

Hazardous or Solid Wastes

- All construction vehicles would be maintained in accordance with the manufacturers' recommendations. All vehicles would be inspected for leaks prior to entering the jobsite. All discovered leaks would be contained with a bucket of absorbent materials until repairs can be made.
- Pursuant to 43 CFR 8365.1-1(b)(3), no sewage, petroleum products, or refuse would be dumped from any trailer or vehicle.
- Regulated wastes would be removed from the Project Area and disposed of in a state, federal, or local designated area.
- Spilled materials of any type would be cleaned up immediately. A shovel and spill kit would be maintained on site at all times to respond to spills.
- If a spill of a petroleum constituent is considered to meet the reportable quantity per the NDEP's guidelines (greater than 25 gallons or greater than three cubic yards of impacted material or any quantity if a water body is impacted), or a reportable quantity for hazardous waste is released based on the Federal Environmental Protection Agency guidelines established under Title III List of Lists (40 CFR Part 302), the NDEP would be notified within 24 hours, and the appropriate remedial actions and confirmation sampling would be conducted under direction of the NDEP.

Migratory Birds

- In order to avoid potential impacts to breeding migratory birds, a nest survey would be conducted by a BLM-approved biologist prior to any surface disturbance associated with construction activities during the avian breeding season (March 1 through July 31 for raptors, and April 1 through July 31 for other migratory birds). 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, or if other evidence of nesting (i.e., mated pairs, territorial defense, carrying nest material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) would be delineated after consultation with the BLM resource specialist, 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: a) 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.

Noxious Weeds, Invasive and Non-native Species

- Noxious weeds would be controlled through implementation of the following BMPs: operator control including washing of equipment; removal of known invasive non-native, and noxious weeds on reclaimed areas; and avoiding areas of known invasive non-native, and noxious weeds during periods when the weeds could be spread by vehicles.

Public Safety

- Public safety would be maintained throughout the life of the Project. All equipment and other facilities would be maintained in a safe and orderly manner.
- Activities would be restricted to frozen or dry ground conditions where feasible. Operations would be curtailed when saturated and soft soil conditions exist.
- Any survey monuments, witness corners, or reference monuments would be protected to the extent economically and technically feasible.

Wildlife

- Following Project construction, areas of incidental disturbance would be reclaimed as necessary to promote the reestablishment of native plant and wildlife habitat.

2.1.8 Applicable Greater Sage-Grouse Required Design Features

For utility corridors and communication sites, the ARMPA Management Decision (MD) LR 1 (page 2-33) directs that Objective SSS 4 is reviewed and MDs SSS 1 through SSS 4 be reviewed and analyzed for projects and activities proposed in GRSG habitat. The only applicable MD for this Project would be MD SSS 4, which directs that authorized/permitted activities conform with Required Design Features (RDFs) (2015 ARMPA, Appendix C) where they are applicable to the site-specific conditions of the project/activity, unless a specific RDF would provide no additional protection to GRSG or its habitat or an alternative RDF is determined to provide equal or better protection (MD SSS 4, ARMPA, page 2-10).

Potentially applicable RDFs are listed below, along with further details of how they would be applied to Project activities within the OHMA. Some design features that conform with the RDFs were previously included in the design for the entire Project and are included in other EA sections, as indicated.

General Required Design Features (ARMPA Appendix C)

- RDF Gen 1: Locate new roads outside of GRSG habitat to the extent practical.
 - There would be no new roads constructed as part of the Project. The main access road would be widened in five distinct areas, and the road leading to the communication site would be an upgrade to an existing partially reclaimed road. See EA Sections 2.1 and 2.1.4.

- RDF Gen 3: Limit construction of new roads where roads are already in existence and could be used or upgraded to meet the needs of the project or operations. Design roads to an appropriate standard, no higher than necessary, to accommodate intended purpose and level of use.
 - There would be no new roads constructed as part of the Project. The main access road would be widened in five distinct areas, and the road leading to the communication site would be an upgrade to an existing partially reclaimed road. See EA Sections 2.1 and 2.1.4.
- RDF Gen 4: Coordinate road construction and use with ROW holders to minimize disturbance to the extent possible.
 - Based on the BLM's Master Title Plats and Land & Mineral Legacy Rehost 2000 System (LR2000) database, there are no existing ROW holders in the Project Area or Road Improvement Zones.
- RDF Gen 5: During project construction and operation, establish and post speed limits in GRSG habitat to reduce vehicle/wildlife collisions or design roads to be driven at slower speeds.
 - The widened access road and upgraded partially reclaimed road would include sharp switchbacks, which would result in the need to drive at slow speeds.
- RDF Gen 6: Newly constructed project roads that access valid existing rights would not be managed as public access roads. Proponents will restrict access by employing traffic control devices such as signage, gates, and fencing.
 - There would be no new roads constructed as part of the Project. The main access road would be widened in five distinct areas, and the road leading to the communication site would be an upgrade to an existing partially reclaimed road. See EA Sections 2.1 and 2.1.4.
- RDF Gen 7: Require dust abatement practices when authorizing use on roads.
 - Prudent vehicle speeds on access roads would be practiced and surface application of water from a water truck would be used to minimize fugitive dust emissions.
- RDF Gen 9: Upon project completion, reclaim roads developed for project access on public lands unless, based on site-specific analysis, the route provides specific benefits for public access and does not contribute to resource conflicts.
 - This Project is an application for a 30-year ROW. Any incidental disturbance outside the ROW would be reclaimed immediately after construction activities and reported to the BLM.
- RDF Gen 10: Design or site permanent structures that create movement (e.g., pump jack/windmill) to minimize impacts on GRSG habitat.

- There would be no permanent structures associated with the Project that create movement.
- RDF Gen 11: Equip temporary and permanent aboveground facilities with structures or devices that discourage nesting and perching of raptors, corvids, and other predators.
 - The communication tower would be equipped with anti-perching devices.
- RDF Gen 12: Control the spread and effects of nonnative, invasive plant species (e.g., by washing vehicles and equipment, minimize unnecessary surface disturbance). All projects would be required to have a noxious weed management plan in place prior to construction and operations.
 - Commnet has committed to washing vehicles and equipment, and other weed management practices. See EA Section 2.1.7.
- RDF Gen 13: Implement project site-cleaning practices to preclude the accumulation of debris, solid waste, putrescible wastes, and other potential anthropogenic subsidies for predators of GRSG.
 - All refuse generated by the Project would be disposed of at an authorized landfill facility off site. No refuse would be disposed of on site. See EA Sections 2.1.7 and 3.2.16.
- RDF Gen 15: When interim reclamation is required, irrigate site to establish seedlings more quickly if the site requires it.
 - The Project is an application for a 30-year ROW. Any incidental disturbance outside the ROW would be reclaimed immediately following construction activities and reported to the BLM. Commnet would irrigate the site to establish seedlings more quickly if necessary.
- RDF Gen 16: Utilize mulching techniques to expedite reclamation and to protect soils if the site requires it.
 - The Project is an application for a 30-year ROW. Any incidental disturbance outside the ROW would be reclaimed immediately following construction activities and reported to the BLM. Commnet would utilize mulching techniques to expedite reclamation and protect soils, if necessary. Mulch used would be certified weed free.
- RDF Gen 17: Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community.
 - The Project is an application for a 30-year ROW. Any incidental disturbance outside the ROW would be reclaimed immediately following construction activities and reported to the BLM and would conform to the surrounding topography and be seeded with a BLM-approved seed mix, if necessary. See EA Section 2.1.6.

- RDF Gen 18: When authorizing ground-disturbing activities, require the use of vegetation and soil reclamation standards suitable for the site type prior to construction.
 - Any reclamation activities of incidental disturbance outside of the ROW would adhere to applicable vegetation and soil reclamation standards. See EA Sections 2.1.6 and 2.1.7.
- RDF Gen 19: Instruct all construction employees to avoid harassment and disturbance to wildlife, especially during the GRSG breeding (e.g., courtship and nesting) season. In addition, pets shall not be permitted on site during construction.
 - Commnet would instruct all Project personnel to avoid harassment and disturbance to wildlife at all times. In addition, no pets would be allowed in the Project Area during construction.
- 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.
 - The communication tower would be equipped with anti-perching devices. No other vertical facilities or fences would be installed as part of the Project.
- RDF Gen 22: Load and unload all equipment on existing roads to minimize disturbance to vegetation and soil.
 - All equipment would be loaded and unloaded on existing roads to minimize disturbance to vegetation and soils.

Lands and Realty Required Design Features (ARMPA Appendix C)

- RDF LR-LUA 1: Where new ROWs associated with valid existing rights are required, co-locate new ROWs within existing ROWs or where it best minimizes impacts in GRSG habitat. Use existing roads or realignments of existing roads to access valid existing rights that are not yet developed.
 - Based on the BLM's Master Title Plats and Land & Mineral Legacy Rehost 2000 System (LR2000) database, there are no existing ROW holders in the Project Area or Road Improvement Zones. In addition, there would be no new roads constructed as part of the Project. The main access road would be widened in five distinct areas, and the road leading to the communication site would be an upgrade to an existing partially reclaimed road.
- RDF GEN 3 (assuming LR-LUA 3): Where necessary, fit transmission towers with anti-perch devices in GRSG habitat.
 - The communication tower would be equipped with anti-perching devices.

The following RDFs would not be applicable to the proposed Project: RDF Gen 2 (there are no riparian areas or ephemeral drainages in the Project Area or Road Improvement Zones); RDF Gen 14 (the Project does not include any temporary housing); RFD Gen 21 (the Project does not

include any reservoirs, pits, tanks, troughs, or similar features); and RDF LR-LUA 2 (the proponent is a corporation and not a county).

2.2 No Action Alternative

In accordance with BLM NEPA guidelines H-1790-1, Chapter V (BLM 2008a), this EA evaluates the No Action Alternative, which is a reasonable alternative to the Proposed Action. The objective of the No Action Alternative is to describe the environmental consequences that would result if the Proposed Action were not implemented. The No Action Alternative forms the baseline for which the impacts of all other alternatives can be measured. Under the No Action Alternative, the BLM would not grant the ROW for the access road or tower location site.

2.3 Alternatives Considered but Eliminated from Detailed Analysis

2.3.1 Squaw Mountain Site Alternative

The Squaw Mountain Site Alternative was eliminated from detailed analysis primarily due to access issues. There were no existing roads for access to the site, and access to the site would cause safety concerns and would require a greater disturbance footprint. In addition, this alternative would be similar in design and would result in similar effects to the Proposed Action.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

The purpose of this section of the EA is to describe the existing environment of the Project Area, as well as environmental consequences from implementation of the Proposed Action and alternatives.

Supplemental Authorities subject to requirements specified by statute or Executive Order (EO) must be considered in all BLM environmental documents. The elements associated with the supplemental authorities listed in the NEPA Handbook (BLM 2008a, Appendix 1) and in the Nevada Instruction Memorandum 2009-030, Change 1, are listed in Table 3.1-1. The table lists the elements and the determination whether the element is present in the Project Area and whether the element would be affected by the Proposed Action. Only the resources identified as present/may be affected are analyzed for cumulative impacts (see Chapter 4).

Table 3.1-1: Elements Associated with Supplemental Authorities and Rationale for Detailed Analysis for the Proposed Action

Resource	Supplemental Authority	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale/Reference Section
Air Quality	Clean Air Act (CAA), as amended (42 United States Code [USC] 7401 et seq.); Section 176(c) CAA - General Conformity		X		Air quality within the Project Area is considered in attainment. Implementation of the Proposed Action would result in negligible short-term adverse effects to air quality in the form of vehicle emission and fugitive dust. As a result of dust abatement measures committed to by the applicant (Section 2.1.7), these negligible adverse effects would be further negated. Therefore, this resource is not further analyzed in this EA.
Areas of Critical Environmental Concern	FLPMA (43 USC 1701 et seq.)	X			These elements are not present within the Project Area or vicinity and are not further analyzed in this EA.
Bald and Golden Eagles	Bald and Golden Eagle Protection Act of 1940 (16 USC 668-668c)			X	See Section 3.2.5 (Special Status Species).

Resource	Supplemental Authority	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale/Reference Section
Cultural Resources	National Historic Preservation Act (NHPA), as amended (16 USC 470)		X		Based on the results of the Class III cultural resources surveys conducted by Enviroscientists on August 5, 2015, and April 22, 2016 (Enviroscientists 2015a; 2016), there are no NRHP-eligible cultural resource sites within the Project Area or Road Improvement Zones. Inadvertent discoveries of previously unknown cultural resources would be treated as required under 43 CFR 10.4 and 43 CFR 3908.420(8)(b). Any such discovery would be immediately reported to the authorized BLM officer. All operations in the immediate area of the discovery would be suspended and the site would be protected until the authorized officer issues a notice to proceed. Through implementation of EPMs outlined in Section 2.1.7, no direct impacts to cultural resources are expected. In addition, there would be no indirect effects to previously recorded sites within a one-mile buffer of the Project Area and Road Improvement Zones. Therefore, this resource element is not further analyzed in this EA.
Environmental Justice	EO 12898 "Federal Actions to Address Environmental Justice in Minority and Low-Income Populations" (2/11/94)	X			Based on a review of existing baseline data, no minority or low-income groups would be disproportionately affected by health or environmental effects as a result of implementation of the Proposed Action. This element is not present within the Project Area or vicinity and is not further analyzed in this EA.
Farm Lands (Prime or Unique)	Surface Mining Control and Reclamation Act of 1977 (30 USC 1201 et seq.); Farmland Protection Policy Act (7 USC 4202 et seq.)	X			This element is not present within the Project Area or vicinity and is not further analyzed in this EA.

Resource	Supplemental Authority	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale/Reference Section
Fish Habitat		X			Native fish habitat is not present within the Project Area or vicinity and is not further analyzed in this EA.
Floodplains	EO 11988, as amended "Floodplain Management" (5/24/77)	X			These elements are not present within the Project Area or vicinity and are not further analyzed in this EA.
Forests and Rangelands (Healthy Forests Restoration Act [HFRA] projects only)	HFRA of 2003 (P.L. 108-148)	X			This project does not meet the requirements to qualify as an HFRA project.
Human Health and Safety (Herbicide Projects)	EO 13045 "Protection of Children from Environmental Health Risks and Safety Risks"	X			The Project may use herbicides to eradicate noxious weeds; however, EO 13045, "Protection of Children from Environmental Health Risks and Safety Risks", would not apply to this Project as there would be no children on the site.
Migratory Birds	EO 13186 "Migratory Birds"; Migratory Bird Treaty Act of 1918 (MBTA) (16 USC 703 - 711)			X	See Section 3.2.1.
Native American Concerns	American Indian Religious Freedom Act of 1978 (42 USC 1996)			X	See Section 3.2.2.
Noxious Weeds, Invasive and Non-native Species	EO 13112 "Invasive Species" (2/3/99)			X	See Section 3.2.3.
Special Status Species (GRSG only)	Approved Resource Management Plan Amendments for the Great Basin Region Greater Sage-Grouse Sub-Regions of Nevada and Northeastern California - 2015			X	See Section 3.2.5.
Threatened or Endangered Species	Endangered Species Act of 1973 (ESA), as amended (16 USC 1531)	X			Federally threatened and endangered species have been determined not to be present within the Project Area.

Resource	Supplemental Authority	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale/Reference Section
Wastes – Hazardous/Solid	Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.); Comprehensive Environmental Response, compensation, and Liability Act of 1980, as amended (42 USC 9615)		X		As part of applicant-committed EPMs, including the use of BMPs, all construction vehicles would be outfitted with spill kits, and absorbent diapers would be placed under leaking equipment immediately after a spill to prevent ground contamination. All vehicles would be refueled offsite. Propane would be stored on site and the storage would comply with all applicable federal, state, and local laws and regulations. All refuse generated by the Project would be disposed of at an authorized landfill facility off site, consistent with applicable regulations. No refuse would be disposed of on site. As a result of these measures and stipulations, this element is not further analyzed in this EA.
Water Quality, Surface and Ground	Safe Drinking Water Act, as amended (42 USC 300f et seq.); Clean Water Act of 1977 (33 USC 1251 et seq.)	X			Based on a review of existing baseline data, the BLM determined the Project would not impact surface or ground water quality. These elements are not further analyzed in this EA.
Wetlands and Riparian Zones	EO 11990 "Protection of Wetlands" (5/24/77)	X			These elements are not present within the Project Area or vicinity and are not further analyzed in this EA.
Wild and Scenic Rivers	Wild and Scenic Rivers Act, as amended (16 USC 1271)	X			These elements are not present within the Project Area or vicinity and are not further analyzed in this EA.

Resource	Supplemental Authority	Not Present	Present/ Not Affected	Present/ May Be Affected	Rationale/Reference Section
Wild Horses and Burros	The Wild Free-Roaming Horses and Burros Act of 1971 (P.L. 92-195)		X		The Proposed Action would impact approximately 0.002 percent of the Rocky Hills HMA. Due to the short duration of Project construction activities, it is expected that most wild horses would avoid the Project Area during construction and maintenance activities and move away to undisturbed portions of the HMA. In addition, there are no perennial water sources located in the Project Area or vicinity to provide regular sources of drinking water to wild horses. Water sources in the HMA are somewhat limited, so most wild horses make concentrated use of Cadet Spring, which is approximately nine miles away from the Project Area. Any impacts to wild horses associated with this Project and within this HMA would be indiscernible; therefore, this resource is not further analyzed in this EA.
Wilderness/Wilderness Study Areas (WSAs)/Lands with Wilderness Characteristics	FLPMA (43 USC 1701 et seq.); Wilderness Act of 1964 (16 USC 1131 et seq.)	X			No Wilderness or WSAs are present within the Project Area or vicinity. The BLM conducted a lands with wilderness characteristics inventory of the Project Area in November 2015, and determined there are no lands with wilderness characteristics in the Project Area. This element is not further analyzed in this EA.

Elements present are analyzed in Section 3.2, including justification for the elements determined present/not affected by the Proposed Action. Those elements listed under the supplemental authorities that do not occur in the Project Area are not evaluated further in this EA, based on the rationale provided in Table 3.1-1.

In addition to the elements listed under supplemental authorities, the BLM considers other resources and uses that occur on public lands and the issues that may result from the implementation of the Proposed Action. Other resources or uses of the human environment considered for this EA are listed in Table 3.1-2.

Table 3.1-2: Resources or Uses Not Associated with Supplemental Authorities

Other Resources or Uses	Not Present	Present/ Not Affected	Present/May Be Affected	Rationale/Reference Section
Fire Management		X		No fuel reduction or habitat management projects have been conducted or are proposed within the Project Area. With EPMs identified in Section 2.1.7 and the fact that the Project Area would continue to be accessible, no impacts to fire management are anticipated; therefore, this resource is not analyzed further in this EA.
Forestry and Woodland Resources		X		Trees are not anticipated to be cut down during construction activities; however, if any trees are cut or removed during construction, they would be stockpiled and used for slope stabilization and to act as water bars, or left for personal harvest. The Project Area is located within an areas designated by the BLM as a Christmas tree cutting area, so any impacts created by the Proposed Action would be indiscernible; therefore, this resource is not analyzed further in this EA.
Lands and Realty		X		There are no authorized ROWs in the Project Area or vicinity. No real estate transactions are proposed. In addition, the Shoshone-Eureka RMP does not prohibit the use of this area for communication towers; therefore, this resource is not analyzed further in this EA.
Mineral Resources		X		Access to the Project Area would require that Commnet's construction and maintenance crews pass through the Tonkin Mine site. McEwen Mining, the owner of the Tonkin project, has submitted a letter to the BLM indicating that there is no issue with Commnet passing through the Tonkin Project site to access Commnet's site. Therefore, there would be no impact to mineral resources in the vicinity of the Project Area and this resource is not further analyzed in this EA.
Paleontological Resources	X			These resources are not present within the Project Area or vicinity and are not further analyzed in this EA.
Rangeland Management		X		The Project Area is located within the Grass Valley and JD Grazing Allotments. The Project would disturb approximately 0.4 acre of the Grass Valley Grazing Allotment or 0.0001 percent of the entire allotment, and approximately 0.1 acre of the JD Grazing Allotment or 0.0001 acre

Other Resources or Uses	Not Present	Present/ Not Affected	Present/May Be Affected	Rationale/Reference Section
				of the entire allotment. This disturbance would equal approximately 0.025 AUM or approximately 0.0001 percent of the total AUMs in the Grass Valley Grazing Allotment, and approximately 0.007 AUM or approximately 0.00009 percent of the total AUMs in the JD Grazing Allotment. The Project would not disturb one full AUM; therefore, this resource is not further analyzed in this EA.
Recreation		X		There would be no impacts to recreation as a result of the Proposed Action as there is open access to the Project Area from the west and there is ample similar land available to dispersed recreational visitors in the vicinity of the Project Area; therefore, this resource is not further analyzed in this EA.
Socioeconomics		X		A construction workforce of up to ten employees could be in the Project Area at any given time. Due to the short duration of Project construction activities, the workforce would be temporary and would not create a demand for additional public or private services and would not impact public schools, the permanent housing market, or other services otherwise associated with permanent workers. Beneficial impacts may occur resulting from the increased coverage area for the use of wireless facilities, but are unknown and undetermined at this time; therefore, this resource is not further analyzed in this EA.
Soils			X	See Section 3.2.4.
Special Status Species (Plants and Wildlife, except GRSG)			X	See Section 3.2.5.
Vegetation			X	See Section 3.2.6.
Visual Resources		X		The Project Area is located within VRM Class 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 is permitted to be high. Management activities may dominate the view and be the major focus of viewer attention. The effects of the Proposed Action on visual resources would be consistent with BLM prescribed Class IV objectives; therefore, this resource is not further analyzed in this EA.

Other Resources or Uses	Not Present	Present/ Not Affected	Present/May Be Affected	Rationale/Reference Section
Wildlife			X	See Section 3.2.7.

Present resources or uses are discussed and analyzed in Section 3.2, including justification for the resources present and determined not affected by the Proposed Action. Those other resources listed that do not occur in the Project Area and would not be affected are not evaluated further in this EA, based on the rationale provided in Table 3.1-2.

3.2 Effects of the Proposed Action

3.2.1 Migratory Birds

3.2.1.1 Affected Environment

"Migratory bird" means any bird listed in 50 CFR 10.13. All native birds found commonly in the US, with the exception of native resident game birds that do not migrate, are protected under the MBTA. The MBTA prohibits taking of migratory birds, their parts, nests, eggs, and nestlings. EO 13186, signed January 10, 2001, directs federal agencies to protect migratory birds by integrating bird conservation principles, measures, and practices into projects.

Additional direction comes from a Memorandum of Understanding (MOU) between the BLM and US 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 USFWS, in coordination with state, tribal, and local governments. The MOU identifies management practices that impact populations of high priority migratory bird species, including nesting, migration, or over-wintering habitats, on public lands, and develops management objectives or recommendations that avoid or minimize these impacts.

The Nevada Department of Wildlife (NDOW), Nevada Natural Heritage Program (NNHP), and the USFWS were contacted to request information regarding wildlife use and nesting raptors in the area. In a response letter provided by the NDOW on July 29, 2015, for the proposed Project, the NDOW identified the following additional migratory birds as having distribution ranges that include the Project Area and four-mile buffer: American kestrel (*Falco sparverius*); bald eagle (*Haliaeetus leucocephalus*); barn owl (*Tyto alba*); burrowing owl (*Athene cunicularia*); Cooper's hawk (*Accipiter cooperii*); ferruginous hawk (*Buteo regalis*); flammulated owl (*Psiloscops flammeolus*); golden eagle (*Aquila chrysaetos*); great horned owl (*Bubo virginianus*); long-eared owl (*Asio otus*); merlin (*Falco columbarius*); northern goshawk (*Accipiter gentilis*); northern harrier (*Circus cyaneus*); northern saw-whet owl (*Aegolius acadicus*); osprey (*Pandion haliaetus*); peregrine falcon (*Falco peregrinus*); red-tailed hawk (*Buteo jamaicensis*); rough-legged hawk (*Buteo lagopus*); sharp-shinned hawk (*Accipiter striatus*); short-eared owl (*Asio flammeus*); Swainson's hawk (*Buteo swainsoni*); turkey vulture (*Cathartes aura*); and western screech-owl (*Megascops kennicottii*). The NDOW stated the American kestrel, Cooper's hawk, northern harrier, osprey, and red-tailed hawk have been directly observed in the vicinity of the Project Area. The NDOW has identified the bald eagle, burrowing owl, ferruginous hawk, flammulated owl, golden eagle, northern goshawk, peregrine falcon, and short-eared owl as NDOW species of special concern and are target species for conservation as outlined by the

Nevada Wildlife Action Plan. The NDOW identified 42 raptor nest sites within ten miles of the Project Area, including six eagle nest sites and nine possible eagle nest sites (Enviroscientists 2015b).

Migratory bird species that have additional protection or management attention are discussed in detail in Section 3.2.5, “Special Status Species.” These species include the following: ferruginous hawk; golden eagle; Lewis’ woodpecker (*Melanerpes lewis*); northern goshawk; pinyon jay (*Gymnorhinus cyanocephalus*); and Swainson’s hawk.

3.2.1.2 Environmental Consequences

Effects Assessment Methodology

Wildlife Resources Consultants (WRC) conducted baseline surveys for wildlife species, including migratory birds and raptors, in September 2015 within the Project Area and 300-foot buffer area (Avian Survey Area [ASA]) (Enviroscientists 2015b). Road Improvement Zone 5 is located in the ASA. The following migratory bird species were observed within the ASA during the surveys: common raven (*Corvus corax*); mountain bluebird (*Sialia currucoides*); northern flicker (*Colaptes auratus*); and rock wren (*Salpinctes obsoletus*). Road Improvement Zones 1 through 4 are within the same vegetation community and contain similar habitat as the area that was surveyed; therefore, it can be assumed that migratory bird species similar to those observed in the surveyed areas could also occur within these zones.

Effects Intensity Level Definitions

Intensity of effects on migratory birds was analyzed by determining the extent at which the Proposed Action would disturb migratory birds and their habitat.

Negligible –Migratory birds would not be affected, or impacts would not result in a loss of individual or habitat.

Minor – Effects on migratory birds would be measurable or perceptible and local; however, the overall viability of the population or subpopulation would not be affected and without further adverse effects the population would recover. Impacts on migratory birds, such as displacement of nests, would be detectable. If mitigation is needed to reduce or rectify adverse effects, it would be relatively simple to implement.

Moderate – Effects would be sufficient to cause a change in the population or subpopulation (e.g., abundance, distribution, quantity, or viability); however, the effect would remain local. The change would be measurable and perceptible, but the negative effects could be reversed. EPMs or mitigation would probably be necessary to reduce or rectify adverse effects.

Major – Effects would be substantial, highly noticeable, and could be permanent in their effect on population or subpopulation survival without active management. Extensive EPMs or mitigation would likely be necessary to reduce or rectify adverse impacts, and its success could not be guaranteed.

Duration

Short-term - Two months or less for individual or habitat; five years or less for a population

Long-term - Greater than two months for individual or habitat; greater than five years for a population

Context

Localized - Impacts are confined to a few individuals or small portion of suitable habitat

Regional - Impacts would affect a widespread area of suitable habitat or a large portion of a population

Proposed Action

The Proposed Action would result in the reduction of approximately 1.9 acres of potential migratory bird habitat. Although the Project would result in a long-term but localized reduction of potential habitat, impacts associated with construction activities would result in adverse, short-term, localized effects to the displacement of individuals in the Project Area. As outlined in the EPM in Section 2.1.7, Commnet has committed to providing a BLM-approved biologist to conduct nest surveys prior to any surface disturbing activities associated with construction activities during the avian breeding season. This measure would ensure that no direct impacts to migratory birds are likely to occur under the Proposed Action; therefore, impacts to individual migratory birds in the Project Area would be reduced and would result in minor, short-term, localized effects.

3.2.2 Native American Concerns

3.2.2.1 Affected Environment

Located within the traditional territory of the Western Shoshone, the MLFO 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. Recognized Tribes with known interests near the Project Area include the Battle Mountain Band, the South Fork Band, and the Elko Band of the Te-Moak Tribe of Western Shoshone, and the Duckwater Shoshone Tribe. In addition, various other community members and individuals are known to have interests in the general area of the Simpson Park Mountains.

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;
- Prehistoric and historic village sites and gravesites;
- 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;
- Sweat lodge locations;
- Locations of pine nut ceremonies, traditional gathering, and camping;
- Rock collecting for use in offerings and medicine gathering;
- Tribally identified Traditional Cultural Properties (TCPs);
- TCPs found eligible to the NRHP;
- Rock shelters;
- Rock art locations;
- Lands or resources that are near, within, or bordering current reservation boundaries; and
- Actions that conflict with tribal land acquisition efforts.

In accordance with the NHPA (P.L. 89-665), the NEPA, the FLPMA (P.L. 94-579), the American Indian Religious Freedom Act of 1978 (P.L. 95-341), the NAGPRA (P.L. 101-601) and EO 13007, the BLM must provide affected Tribes an opportunity to comment and consult on the proposed Project. The BLM must attempt to limit, reduce, or possibly eliminate any negative impacts to Native American traditional/cultural/spiritual sites, activities, and resources.

3.2.2.2 Environmental Consequences

Effects Assessment Methodology

On December 3, 2015, consultation initiation/invitation letters were mailed for the Project from the BLM MLFO to the following: the Battle Mountain Band, the South Fork Band, and the Elko Band of the Te-Moak Tribe of Western Shoshone; and the Duckwater Tribe of the Western Shoshone. The BLM received a letter from the Duckwater Tribe of the Western Shoshone on January 15, 2016, stating the Tribe had no issues with the Project.

Effects Intensity Level Definitions

Negligible Effect – the impact would be at the lowest levels of detection, barely measurable, with no perceptible consequences either adverse or beneficial to the resources.

Minor Effect – the impact is measurable or perceptible, but it is slight and affects a limited area of a resource or group of resources.

Moderate Effect – the impact is measurable and perceptible.

Major Effect – the impact is substantial, noticeable, and permanent.

Proposed Action

Various Tribes and Bands of the Western Shoshone have stated that 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 Battle Mountain administrative area host certain traditional, spiritual, and cultural use activities today, as in the past. TCPs, designated by the Tribes, are not known to exist within the vicinity of the Project Area. The BLM continues to solicit input from local tribal entities.

For this Proposed Action, the BLM has committed to avoiding any eligible and unevaluated archaeological sites discovered and documented during cultural resources inventories. The BLM continues 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 boundary, a protective “buffer zone” may be acceptable, 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.

The designated BLM representative, accompanied by designated tribal observers, may periodically visit identified cultural resources sites within or near the Project Area. Native American Consultation and monitoring by the BLM and Tribal Cultural Resource Specialists may occur throughout the life of a project to ensure that any identified TCPs are not deteriorating.

If a subsequent development plan or amendment to the POD is submitted to the BLM, as a result of an approval of this specific proposal, the BLM would again initiate consultation with the local Tribes and utilize any data collected during this proposal.

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 EPM outlined in Section 2.1.7 states 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.

Tribal relations and coordination does not terminate with the land use decision itself, but rather continues to engage Tribes regarding treatments, mitigation, reclamation, and disposition of artifacts and reports.

At this time, no effects related to Native American Concerns have been identified and none are anticipated from the Proposed Action.

3.2.3 Noxious Weeds, Invasive and Non-native Species

3.2.3.1 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 2013, <http://www.blm.gov/wo/st/en/prog/more/weeds.html>). 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 weed and invasive plant species is set forth in the BLM Manual 9015 – Integrated Weed Management (BLM 1992). The BLM’s primary focus is “providing adequate capability to detect and treat smaller weed infestations in high-risk areas before they have a chance to spread.” Noxious weed reduction would be achieved through early detection and rapid response (BLM 2013, <http://www.blm.gov/wo/st/en/prog/more/weeds.html>).

3.2.3.2 Environmental Consequences

Effects Assessment Methodology

Baseline botanical surveys, including surveys for noxious weeds, invasive and non-native plant species, were conducted July 31, 2015, within the Project Area and a 20-foot buffer surrounding the access road portion of the Project Area (Botanical Survey Area [BSA])

(Enviroscientists 2015b). No noxious weeds were observed within the BSA during the survey. The following invasive and non-native plant species were present: cheatgrass (*Bromus tectorum*); saltlover (*Halogeton glomeratus*); and yellow salsify (*Tragopogon dubius*). Cheatgrass was abundant throughout the BSA, while saltlover was only observed along the proposed access road. A few yellow salsify individuals were identified at disjunct locations. Road Improvement Zones 1 through 4 are within the same vegetation community and contain similar habitat as the area that was surveyed; therefore, it can be assumed that invasive and non-native plant species similar to those observed in the surveyed areas could also occur within these zones.

Effects Intensity Level Definitions

Negligible – Impacts from noxious weeds, invasive and non-native plant species would be so small it would not be measurable or perceptible.

Minor – Impacts from noxious weeds, invasive and non-native plant species would be measurable and perceptible but small, localized, and of little consequence. Any adverse effect can be effectively mitigated.

Moderate – Impacts from noxious weeds, invasive and non-native plant species would be measurable and perceptible, localized, but large and of consequence. EPMs or mitigation could be extensive, but most likely effective.

Major – Impacts from noxious weeds, invasive and non-native plant species would be measurable and perceptible, large and/or widespread, and could have permanent consequences for the resource. EPMs or mitigation to offset adverse effects may be extensive and success is not assured.

Duration

Short-term – Two months or less

Long-term – Greater than two months

Context

Localized – Project Area and Road Improvement Zones

Regional – MLFO administrative boundary

Proposed Action

New surface disturbance within the Project Area, as a result of the implementation of the Proposed Action, could increase the potential for the spread and establishment of noxious weeds, invasive and non-native species. Indirect impacts include a decrease in native plant communities with the potential increase in competition from noxious weeds, invasive and non-native species. These impacts are anticipated to be adverse, localized, short-term and minor; however, these impacts would be further reduced to negligible based on implementation of the EPMs outlined in

Section 2.1.7. In addition, the BLM and Commnet would cooperate to inventory and monitor noxious weeds within areas of disturbance within the Project Area. Noxious weed infestations within the Project Area resulting from Commnet's ground disturbing activities would be promptly reported to the BLM. The extent of infestations would be assessed, and mapped using Global Positioning System units and Geographic Information Systems software. Commnet would treat any noxious weed infestations that result from ground disturbing activities within the Project Area for at least a three-year period following the completion of the Project. Treatments would be applied and recorded per BLM policy. The BLM and Commnet would cooperate to monitor the effectiveness of treatments on noxious weeds.

3.2.4 Soils

3.2.4.1 Affected Environment

Information regarding soils within the Project Area was obtained from the US Department of Agriculture Natural Resources Conservation Service (NRCS). The Hymas-Ansping association is the only soil type within the Project Area and Road Improvement Zone 5 (Figure 3.2.4). The Hymas-Ansping association is comprised of 55 percent Hymas cobbly loam, and 30 percent Ansping loam. The Hymas series consists of shallow, well-drained soils formed in residuum and colluvium from limestone. The Ansping series consists of well-drained soils that are deep to a strongly cemented duripan. These soils formed in alluvium and colluvium derived mainly from limestone, but also from other sedimentary and volcanic rocks (NRCS 1989).

There are three other soil types associated with Road Improvement Zones 1 through 4: the Chad-Gando-Softscrabble association; the Shagnasty-Softscrabble association; and the Eightmile-Loncan-Glean association (Figure 3.2.4). The Chad-Gando-Softscrabble association is comprised of 45 percent Chad cobbly loam, 20 percent Gando stony loam, and 20 percent Softscrabble stony fine sandy loam. The Chad series consists of deep, well-drained soils that formed in residuum derived from chert and shale with small components of loess and volcanic ash. The Gando series consists of very shallow and shallow, well-drained soils that formed in residuum and colluvium derived from chert, argillite, shale, quartzite, rhyolite, or tuffaceous sandstone. The Softscrabble series consists of very deep, well-drained soils that formed in residuum and colluviums derived mainly from volcanic rocks (NRCS 1989).

The Shagnasty-Softscrabble association is comprised of 60 percent Shagnasty extremely stony loam and 25 percent Softscrabble very stony fine sandy loam. The Shagnasty series consists of deep or very deep, well-drained soils that formed in residuum and colluviums derived from rhyolite, andesite, and quartzite (NRCS 1989).

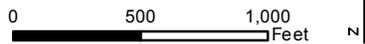
The Eightmile-Loncan-Glean association is comprised of 50 percent Eightmile very gravelly loam, 20 percent Loncan gravelly loam, and 15 percent Glean very gravelly loam. The Eightmile series consists of shallow, well-drained soils that formed in residuum from shale, sandstone, and quartzite. The Loncan series consists of moderately deep, well-drained soils that formed in residuum and colluvium derived mainly from chert or sedimentary and volcanic rocks. The Glean series consists of deep, well-drained soils that formed in colluvium derived from mixed rocks including metamorphic rocks, basalt, rhyolite and andesite (NRCS 1989).



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Explanation

- Project Area
- Road Improvement Zones
- ROW Route
- 311 - Eightmile-Loncan-Glean association
- 321 - Mau-Shagnasty-Eightmile association
- 501 - Hymas-Ansping association
- 682 - Chad-Gando-Softscrabble association
- 762 - Shagnasty-Softscrabble association
- 764 - Shagnasty-Ravenswood-Rock outcrop association



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Soil Associations within the Project Area
and Road Improvement Zones

Figure 3.2.4

04/22/2016

Soil associations within the Project Area and Road Improvement Zones are shown on Figure 3.2.4 and listed in Table 3.2-1. Water erosion hazards are slight to severe for all series, while wind erosion hazards are slight for all soil series.

Table 3.2-1: Summary of Soil Mapping Units and Characteristics

Association	Soil Series	Landscape position/ % Slope	Profile Soil Texture	Permeability	Erosion Hazard by Water	Erosion Hazard by Wind
Hymas-Ansping (501)	Hymas	Side slopes of mountains bordering mountain-valley fans; 15 to 30%	Cobbly loam	Moderate	Moderate	Slight
	Ansping	Lower side slopes of mountains; 15 to 30%	Loam	Moderate	Severe	Slight
Eightmile-Loncan-Glean (311)	Eightmile	Side slopes of mountains; 30 to 75%	Very gravelly loam	Moderate	Severe	Slight
	Loncan	Upper side slopes of mountains; 30 to 15%	Gravelly loam	Moderate	Moderate	Slight
	Glean	Side slopes of mountains; 30 to 50%	Very gravelly loam	Moderately rapid	Moderate	Slight
Chad-Gando-Softscrabble (682)	Chad	Side slopes of mountains; 15 to 50%	Cobbly loam	Slow	Severe	Slight
	Gando	Crests and upper side slopes of mountains; 15 to 30%	Stony loam	Moderate	Moderate	Slight
	Softscrabble	Side slopes of mountains; 15 to 30%	Stony fine sandy loam	Slow	Slight	Slight
Shagnasty-Softscrabble (762)	Shagnasty	Side slopes of mountains; 15 to 50%	Extremely stony loam	Slow	Moderate	Slight
	Softscrabble	Lower side slopes of mountains; 15 to 30%	Very stony fine sandy loam	Slow	Slight	Slight

Source: NRCS 1989

3.2.4.2 Environmental Consequences

Effect Assessment Methodology

Information regarding soils within the Project Area was obtained from the US Department of Agriculture Natural Resources Conservation Service (NRCS). Soils analysis was based on a qualitative assessment of generalized soil types. Types of soil impacts include those resulting from soil removal, profile mixing, compaction, erosion, contamination, and restoration.

Effects Intensity Level Definitions

Negligible – Impacts on soils, such as removal of topsoil, would not occur or would be so slight as to be immeasurable.

Minor – Impacts on soils, such as removal of topsoil, would occur but would be barely measurable or perceptible.

Moderate – Impacts on soils would be readily apparent. EPMs or mitigation would probably be necessary to offset adverse impacts.

Major – Impacts on soils would be readily apparent and would substantially change the soil characteristics of the area. EPMs or extensive mitigation would probably be necessary to offset adverse impacts, and its success could not be guaranteed.

Duration

Short-term – Two months or less

Long-term – Greater than two months

Context

Localized – Project Area and Road Improvement Zones

Regional – MLFO administrative boundary

Proposed Action

The total surface disturbance associated with implementation of the Proposed Action would impact approximately 1.9 acres of soils. Soils within the Project Area have a slight to severe erosion hazard potential from water and a slight erosion hazard potential from wind. As a result of the Proposed Action, minor adverse effects to soils are possible; however, they would be localized and short-term. These potential effects to soils would be reduced by measures incorporated into the Project design including the use of BMPs to limit erosion and to reduce sediment runoff from the disturbed areas (Kennedy/Jenks Consultants 2008), and the concurrent reclamation of incidental disturbance areas. BMPs would include the use of one or all of the following: straw bales (certified weed-free); silt fences; and/or the distribution of clarified water from sediment traps through solid pipes in order to minimize erosion caused by channeling. In addition, Commnet would apply gravel to the constructed road and the tower site, as necessary, to help reduce erosion and soil compaction. Soils or alluvium capable of serving as growth media

would be salvaged and stockpiled as part of the fill slope of the newly constructed road. As a result of reclamation of the incidental disturbance areas, which would include regrading, ripping, and revegetation of the disturbed areas, soil loss due to the surface disturbing activities associated with implementation of the Proposed Action would be adverse, negligible, short-term and localized.

3.2.5 Special Status Species

3.2.5.1 Affected Environment

The BLM's policy for management of special status species 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 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 other 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 determined to meet BLM's Manual 6840 policy definition.

The NDOW reported that greater sage-grouse habitat in the vicinity of the Project Area consists primarily of General habitat, as classified by the Nevada Sagebrush Ecosystem Program. Priority habitats for GRSG are present within a four-mile buffer surrounding the Project Area (Enviroscientists 2015b). Refer to the GRSG paragraph below for a discussion on the September 2015 ARMPA.

The NNHP reported that there are no At Risk species documented within the Project Area or vicinity (i.e., a surrounding 3.1-mile [or five kilometer] buffer). The NNHP reported that potential habitat may be available within the Project Area and vicinity for the following species:

golden eagle, a Nevada BLM sensitive species; western jumping mouse (*Zapus princeps*), a NNHP Imperiled species; and American water shrew (*Sorex palustris*), a NNHP Imperiled species. Surface water and riparian vegetation are critical habitat components for both the western jumping mouse and the American water shrew; therefore, there is no habitat present for either species in the Project Area or vicinity.

The USFWS Nevada Office reported that a total of two Threatened, Endangered, or Candidate species on the ESA Species List may occur within the Project Area: Lahontan cutthroat trout (*Oncorhynchus clarkia henshawi*), a Threatened species, and greater sage-grouse, a Candidate species. However, on September 22, 2015, the USFWS found that listing the greater sage-grouse as Threatened or Endangered under the ESA was unwarranted, so the greater sage-grouse is no longer considered a Candidate species. No perennial water is present within the Project Area; therefore, no habitat is available for Lahontan cutthroat trout.

Enviroscientists conducted botanical surveys within the BSA on July 31, 2015. Four BLM species were identified as having potential to occur in the BSA: bashful beardtongue (*Penstemon pudicus*), Beatley buckwheat (*Eriogonum rosense* var. *beatleyae*), Holmgren lupine (*Lupinus holmgrenianus*), and windloving buckwheat (*Eriogonum anemophilum*). The BSA is outside of the known range of all of the species with the exception of Beatley buckwheat. There were no special status plant species observed in the BSA during the field survey (Enviroscientists 2015b). Road Improvement Zones 1 through 5 are not located within the BSA and therefore were not surveyed. Road Improvement Zones 1 through 5 are in the same vegetation community and contain similar habitat as the area that was surveyed; therefore, it can be assumed that no special status plant species would occur within these zones. In addition, the zones contain disturbed areas that lessen the potential for the occurrence of any special status plant species.

WRC conducted wildlife surveys on September 17, 2015, within the Project Area and a 100-foot buffer (Wildlife Survey Area [WSA]) and ASA, which includes Road Improvement Zone 5. Road Improvement Zones 1 through 4 are not located within the WSA or ASA. There were no special status wildlife species or sign observed within the WSA or ASA during field surveys (Enviroscientists 2015b).

Special Status Wildlife Species

Several species were identified as having potential habitat within the WSA or the ASA in the Biological Assessment Protocol prepared for the Project (Enviroscientists 2015c). The results of the habitat assessments for each of these species are presented in this section. Road Improvement Zones 1 through 4 are within the same vegetation community as the ASA and WSA; therefore, it can be assumed that the results of the habitat assessments apply to those zones, even though they were not surveyed.

Bats

The following BLM sensitive bat species have been identified as having the potential to occur within the BSA and Road Improvement Zones 1 through 4: big brown bat (*Eptesicus fuscus*); hoary bat (*Lasiurus cinereus*); long-eared myotis (*Myotis evotis*); pallid bat (*Antrozous pallidus*); spotted bat (*Euderma maculatum*); Townsend's big-eared bat (*Corynorhinus townsendii*); and western small-footed myotis (*Myotis ciliolabrum*).

Day-roosting bat habitat, consisting of rock outcrops, trees, and snags, were present within the WSA. Woodpecker cavities are the primary day-roosting habitat for bats since the bark of the standing and downed trees and snags was no longer attached. Cliffs with large sheer faces or caves that could serve as potential roosting habitats for bats were not present within the WSA.

Birds

The following BLM sensitive avian species have been identified as having the potential to occur within the ASA and Road Improvement Zones 1 through 4: ferruginous hawk; golden eagle; Lewis' woodpecker; northern goshawk; pinyon jay; and Swainson's hawk.

Raptor nests or locations suggestive of raptor nesting (i.e., locations with raptor sign such as prey remains, plucking posts, pellets, white wash, and/or egg shells) were not observed during the September 2015 field surveys. Potential raptor nesting habitats within the ASA primarily consisted of singleleaf piñon trees, tree snags, and rock outcrops. The wildlife surveys, however, were conducted outside of breeding raptor season, which caused raptor nests and other sign to be difficult to locate due to the absence of adult birds performing such activities as flying, vocalizing, and responding to the begging calls of chicks.

No golden eagles were observed within the ASA, but potential nesting habitat for golden eagles was present within a 0.25-mile radius surrounding the Project Area.

Suitable nesting habitat for northern goshawk was not present within the ASA due to absence of juniper trees and the limited number of singleleaf piñon trees remaining after the 1999 Trail Canyon Fire. The small stands of living singleleaf piñon trees within the ASA are surrounded by extensive previously burned landscapes that have not yet returned to woodland communities, and such conditions are not suitable for northern goshawk nesting. The ASA may potentially provide foraging and perching habitat. Woodland landscapes to the east of the Project Area within a 0.25-mile radius may provide potential nesting habitat for northern goshawk, but there are no features adjacent to these woodlands that are typical of suitable habitat, such as riparian areas that offer large concentrated numbers of avian prey.

Lewis' woodpecker was not observed or detected within the ASA during the September 2015 wildlife surveys, but potential nesting and foraging habitats for this species was identified in the form of small intact stands of singleleaf piñon. The degree to which Lewis' woodpecker inhabits small woodland stands surrounded by unsuitable habitat (e.g., grasslands and shrublands) is unknown.

No pinyon jays were observed or detected within the ASA. Similar to Lewis' woodpecker, the small intact stands of singleleaf piñon may provide potential foraging and/or perching habitat for this species. Pinyon jays, however, are unlikely to nest within the ASA due to the limited number of living singleleaf piñon trees and the large expanse of disturbed landscapes produced from the 1999 Trail Canyon Fire.

The ferruginous hawk and Swainson's hawk were also not observed or detected within the ASA, and suitable nesting habitat for these hawk species was absent.

Habitat is present for three other BLM sensitive avian species: Brewer's sparrow; loggerhead shrike; and sage thrasher. None of the three species were observed during the survey.

Greater Sage-Grouse

There are three known GRSG lek sites between 3.2 and 3.9 miles from the Project Area, all with an unknown status. No GRSG or scat or other sign was observed during the September 2015 field surveys. ARMPA identifies and provides management direction for a total of over 20 million acres of GRSG habitat. As identified in the 2015 ARMPA, BLM-administered lands in the Battle Mountain District include 3,727,500 acres of identified GRSG habitat, of which 1,163,600 acres are designated as OHMA, defined as containing seasonal or connectivity habitat areas for GRSG (BLM 2015, p. 1-6, 1-7). The entire Project Area and Road Improvement Zones are located in the OHMA (Figure 3.2.5). Applicable ARMPA MDs and RDFs for the OHMA are included in the Proposed Action (EA Section 2.1.8) to help minimize impacts to GRSG habitat management areas.

3.2.5.2 Environmental Consequences

Effects Assessment Methodology

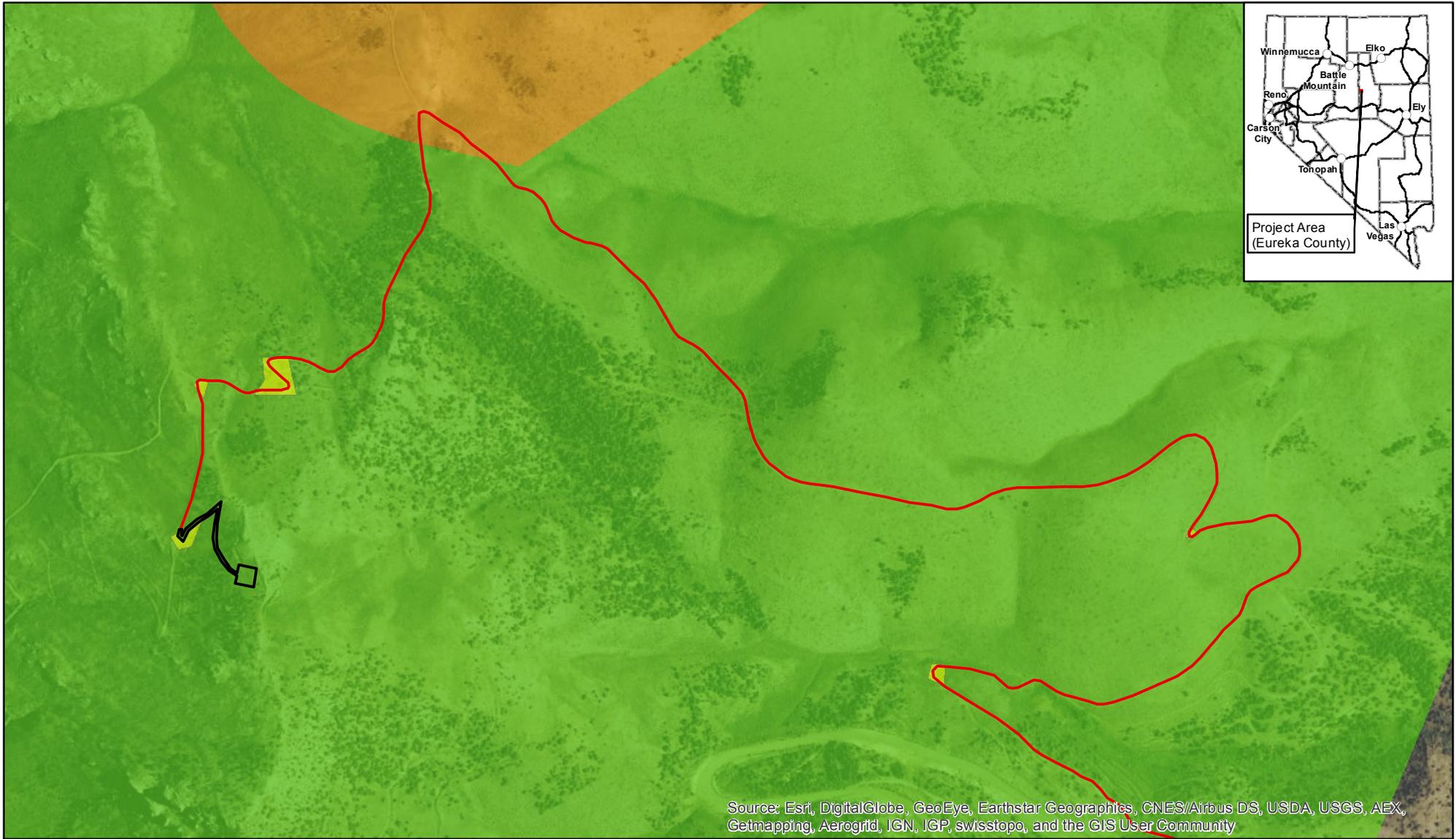
NDOW, NNHP, and USFWS were contacted to obtain a list of threatened and endangered and sensitive species that have the potential to occur within the Project Area (Enviroscientists 2015b). In addition, evaluations of the most recent BLM Sensitive Species List and Special Status Species lists for the Battle Mountain District were conducted to determine if any species had the potential to occur within the Project Area. Enviroscientists conducted botanical surveys within the BSA on July 31, 2015, which included a special status plant species survey. WRC conducted wildlife surveys on September 17, 2015, within the WSA and ASA, which includes Road Improvement Zone 5.

Effects Intensity Level Definitions

Negligible - Special status species would not be affected, or effects would be at or below level of detection. A negligible effect would equate with a “no effect” determination under Section 7 of the ESA regulations for threatened and endangered species.

Minor - Effects to special status species would be perceptible or measurable, but severity and timing of changes to parameter measurements are not expected to be outside natural variability and are not expected to have effects on populations of special status species. Impacts would be outside critical periods. A minor effect would equate with a determination of “not likely to adversely affect” or “likely to adversely affect” under Section 7 of the ESA regulations.

Moderate - Effects to special status species would be perceptible and measurable, and severity and timing of changes to parameter measurements are expected to be sometimes outside natural variability, and changes within natural variability might be long term. Populations of special status species might have small to moderate declines, but are expected to rebound to pre-impact numbers. No species would be at risk of being extirpated from the area. Some impacts might occur during key time periods. A moderate effect would in most cases equate with a determination of “likely to adversely affect” under Section 7 of the ESA regulations.



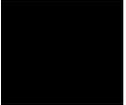
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Explanation

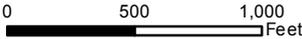
-  Project Area
-  Road Improvement Zones
-  ROW Route

GRSG Plan Amendment Habitat Management Area

-  General Habitat Management Areas (GHMA)
-  Other Habitat Management Areas (OHMA)



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**Greater Sage-Grouse Habitat
 Management Areas**

Figure 3.2.5
 04/22/2016

Major - Effects to special status species would be measurable, and severity and timing of changes to parameter measurements are expected to be outside natural variability for long periods of time or even be permanent; changes within natural variability might be long term or permanent. Populations of special status species might have large declines, with population numbers significantly depressed. In extreme cases, a species might be at risk of being extirpated from the area, key ecosystem processes like nutrient cycling might be disrupted, or habitat for any species might be rendered not functional. Substantive impacts would occur during key time periods. Impacts would be long term to permanent. A major effect would equate with an “adverse effect with/without a jeopardy opinion” under Section 7 of the ESA regulations.

Duration

Short-term – Two months or less for individual or habitat; five years or less for a population.

Long-term - Greater than two months for individual or habitat; greater than five years for a population.

Context

Localized - Impacts are confined to a small part of the population, habitat, or range.

Regional - Impacts would affect a widespread area of suitable habitat or the range of the population or species. If species only occur in one area and that entire area is affected, impact is considered regional since it impacts the entire population of the special status species.

Proposed Action

The Proposed Action would create approximately 1.9 acres of surface disturbance and associated removal of vegetation, which could potentially disturb the breeding or foraging behavior of sensitive bird, raptor, and bat species. Vegetation removal would result in a long-term but localized reduction of approximately 1.9 acres of foraging and breeding habitat for sensitive bird, raptor, and bat species within the Project Area. This acreage would be disturbed all at one time; however, construction activities would be temporary and would only last up to 60 days. All incidental surface disturbance associated with Project-related activities would be reclaimed immediately and reported to the BLM. Impacts associated with construction activities would result in adverse, short-term, localized effects to the displacement of special status species in the Project Area. As outlined in the EPM in Section 2.1.7, Commnet has committed to providing a qualified biologist to conduct nest surveys prior to any surface disturbing activities associated with construction activities during the avian breeding season to ensure that no direct impacts to sensitive bird or raptor species are likely to occur. Indirect impacts, as a result of the Project, and vegetation removal could lead to temporary spatial redistribution of individuals or habitat-use patterns during construction activities. Implementing the Proposed Action would not result in a decline in local or regional migratory bird or bat populations because birds and bats would be able to redistribute and undisturbed and suitable habitat exists outside of the Project Area, therefore effects would be categorized as adverse, minor, short-term, and localized.

Greater Sage-grouse

Potential direct effects to GRSG of any Project-related activities in the OHMA could include harassment, disturbance/displacement, and vehicle impacts. Potential indirect effects to GRSG could include: increasing predation by attracting predators with refuse or by providing perches for avian predators; and any effects that would degrade habitat quantity, quality or connectivity, which could include ground-disturbing activities, increasing weeds, or igniting wildfires.

Any GRSG using the area would likely be temporarily displaced by noise and human presence during Project activities. Direct mortality to any GRSG using the area would be minimized per ARMPA RDFs by using prudent vehicle speed limits and by utilizing perch deterrents. Project personnel would be instructed to avoid harassment and disturbance of wildlife, and pets would not be permitted onsite; this would help minimize direct injury and mortality. The potential to indirectly increase mortality due to predation would be minimized by installing anti-perching devices on the communication tower, which would limit perching opportunities for avian predators, and prohibiting refuse disposal onsite, which would prevent attracting scavengers that can also prey on GRSG.

Applicable ARMPA RDFs addressing habitat effects during Project activities include several measures to minimize disturbance to vegetation and soils and to prevent the spread of weeds. These RDFs, together with EPMs that minimize the effects of wildfire, would help limit effects to GRSG habitat during Project activities in the OHMA. Due to the small size of the Project, effects are anticipated to be localized, minor, and short-term and the Project would not contribute to larger-scale habitat fragmentation.

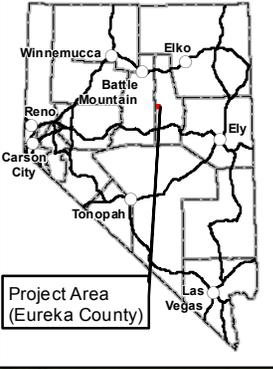
Project construction activities in the OHMA would temporarily effect potential habitat by removing approximately 1.9 acres of vegetation and soils. Construction activities would last up to 60 days, following which Commnet would immediately restore any incidental surface disturbance to meet GRSG habitat needs appropriate to the OHMA designation. Reclamation would conform to the surrounding topography and be seeded with a BLM-approved seed mix. As a result of reclamation, effects to GRSG habitat are anticipated to be localized, negligible, and short-term.

3.2.6 Vegetation

3.2.6.1 Affected Environment

According to the NRCS data, one ecological site occurs within the Project Area and Road Improvement Zones 1, 2, and 5: *Pinus monophylla-Juniperus osteosperma/Artemisia tridentata* ssp. *vaseyana/Pseudoroegneria spicata* ssp. *spicata-Achnatherum thurberianum* (F024XY049NV) (Figure 3.2.6). This ecological site is denoted as PIMO-JUOS for this analysis.

The NRCS designation of the PIMO-JUOS ecological site generally conformed to the results of the ecological site assessment. The ecological characteristics described at the reference location are representative of the entire Project Area.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

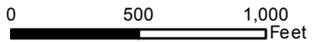
Explanation

- Project Area
- Road Improvement Zones
- ROW Route
- R028BY027NV - SHALLOW CALCAREOUS SLOPE 14+ P.Z.
- F024XY049NV - Pinus-Juniperus
- F024XY049NV - R028BY007NV - LOAMY 10-12 P.Z.



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**Ecological Sites within the Project Area
 and Road Improvement Zones**

Figure 3.2.6
 04/22/2016

The reference location was located on the upper portion of a mountain slope with a slope of approximately 15 percent and at an elevation of approximately 8,130 feet amsl. The topographic features at the reference location corresponded relatively well to that described in the ESD. The PIMO-JUOS ecological site is described as occurring on mountains and hill sideslopes and summits with slopes ranging between eight and 50 percent. The elevation at the reference location, however, did not fall within the elevational range for the PIMO-JUOS ecological site, which is provided in the ESD as ranging between 6,500 to approximately 7,500 feet amsl (NRCS 2003).

According to the ESD, soils within the PIMO-JUOS ecological site are shallow to moderately deep and are typically skeletal with gravels, cobbles, or stones distributed throughout the profile (NRCS 2003). The soil at the reference location generally conformed to that described by the ESD. The soil depth at the reference location was shallow at approximately 13 inches, and the surface soil texture consisted of gravelly loam.

The vegetation community at the reference location for the PIMO-JUOS ecological site corresponded to that described in the ESD relatively well. According to the ESD, the vegetative composition in values of absolute percent cover is 20 to 35 percent mature trees, 30 percent shrubs and young trees, ten percent forbs, and 60 percent grasses; however, the ESD does recognize that wildfires are a natural disturbance that may influence the structure and composition of the vegetation community, especially in the overstory tree canopy. The 1999 Trail Canyon Fire altered the composition of the vegetation community within the Project Area. The vegetative composition at the reference location was estimated as one percent trees, 65 percent shrubs, ten percent forbs, and ten percent grasses. The dominant shrub species at the reference location were yellow rabbitbrush (*Chrysothamnus viscidiflorus*) and desert snowberry (*Symphoricarpos longiflorus*), and the dominant forb and grass species were arrowleaf balsamroot (*Balsamorhiza sagittata*) and basin wildrye (*Leymus cinereus*), respectively. Conversely, the ESD describes the PIMO-JUOS ecological site as dominated by singleleaf piñon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*) with mountain big sagebrush (*Artemisia tridentata* ssp. *vaseyana*) as the principal understory shrub and bluebunch wheatgrass (*Pseudoroegneria spicata* ssp. *spicata*), Indian ricegrass (*Achnatherum hymenoides*), and Thurber's needlegrass (*Achnatherum thurberianum*) as the most prevalent grasses (NRCS 2003). Singleleaf piñon, mountain big sagebrush, bluebunch wheatgrass, and Indian ricegrass were observed at the reference location but did not provide abundant cover. Utah juniper and Thurber's needlegrass were not observed at the reference location or elsewhere within the Project Area.

Road Improvement Zones 3 and 4 are within the Shallow Calcareous Slope 14+ P.Z (R028BY027NV) (Figure 3.2.6). This ecological site is denoted as SCS14 for this analysis. This ecological site was not verified during the botanical field survey. The SCS14 ecological site is described in the ESD as occurring on mountain sideslopes on all exposures. Slopes range from 15 to 75 percent. Elevations are 7,500 to over 9,500 feet amsl. Soils are shallow to very shallow and well drained and have a high amount of gravels, cobbles, rocks or stones on the surface (NRCS 2003). The plant community is dominated by bluebunch wheatgrass and black sagebrush.

3.2.6.2 Environmental Consequences

Effects Assessment Methodology

An ecological site survey was conducted within the Project Area on July 31, 2015, by Enviroscientists. Ecological site verification within the Project Area was performed in accordance with BLM protocols. The ecological site within the Project Area was surveyed by walking meandering transects. One reference location was chosen at UTM 545234E, 4421581N, as a representative sample of the ecological site where a soil pit and environmental conditions were evaluated to determine if the site conditions conformed to the corresponding NRCS ecological site description (ESD).

Effects Intensity Level Definitions

Negligible – Impacts to native vegetation would be so small it would not be measureable or perceptible.

Minor – Impacts to native vegetation would be measureable and perceptible but small, localized, and of little importance. Any adverse effect can be effectively mitigated.

Moderate – Impacts to native vegetation would be measureable and perceptible, localized, but large and of consequence. EPMs or mitigation could be extensive, but most likely effective.

Major – Impacts to native vegetation would be measureable and perceptible, large and/or widespread, and could have permanent consequences for the resource. EPMs or mitigation to offset adverse effects may be extensive and success is not assured.

Duration

Short-term – Two months or less

Long-term – Greater than two months

Context

Localized – Project Area and Road Improvement Zones

Regional – MLFO administrative boundary

Proposed Action

The Proposed Action would impact approximately 0.5 acre of the PIMO-JOUS ecological site, and associated grasses, shrubs, and forbs in the Project Area. In addition, approximately 0.5 acre of the PIMO-JOUS ecological site would be disturbed in Road Improvement Zones 1, 2 and 5, and approximately 0.9 acre of the SCS14 ecological site would be disturbed in Road Improvement Zones 3 and 4. Disturbance outside of the ROW is not anticipated; however, Commnet would reclaim any disturbance outside of the ROW to pre-Project conditions in the event of incidental disturbance. EPMs outlined in Section 2.1.7 describe the protection of vegetation during construction in newly disturbed incidental work areas by salvaging soil and

distributing and contouring evenly over the surface of the disturbed area after construction completion. Impacts to vegetation as a result of implementation of the Proposed Action would be adverse, minor, long-term, and localized.

3.2.7 Wildlife

3.2.7.1 Affected Environment

A total of one reptile and six mammals were directly observed or detected in the WSA during the September 2015 wildlife surveys by sign (e.g., calls, tracks, nests, burrows, scat, pellets, and carcasses). The general wildlife species detected in the WSA are common throughout the Great Basin region. The reptile observed in the WSA was the western fence lizard (*Sceloporus occidentalis*). Mammals detected in the WSA or vicinity included the following: black-tailed jackrabbit (*Lepus californicus*); coyote (*Canis latrans*); mountain cottontail (*Sylvilagus nuttallii*); mule deer (*Odocoileus hemionus*); woodrat (*Neotoma* ssp.); and yellow-bellied marmot (*Marmota flaviventris*). Road Improvement Zones 1 through 4 are within the same vegetation community and contain similar habitat as the area that was surveyed; therefore, it can be assumed that wildlife species similar to those that were observed in the surveyed areas could also occur within these zones.

Ungulates

No ungulates were observed during field surveys, but ungulate scat was scattered throughout the WSA. The ungulate scat was either attributed to mule deer, pronghorn antelope, or both. The NDOW has identified that the mule deer is the only ungulate species with a known distribution throughout the WSA and vicinity; therefore, the ungulate scat was attributed to mule deer, but with some uncertainty. Although ungulate scat was scattered throughout the WSA, locations with concentrated quantities of scat were not observed. Additionally, no other sign of ungulate activity (e.g., bones, sheds, beds, and/or heavily foraged areas) were identified.

3.2.7.2 Environmental Consequences

Effects Assessment Methodology

WRC conducted wildlife surveys on September 17, 2015, within the WSA, which includes Road Improvement Zone 5. All wildlife species observed were documented (Enviroscientists 2015b).

Effects Intensity Level Definitions

Negligible - Wildlife species would not be affected, or effects would be at or below level of detection.

Minor - Effects to wildlife species would be perceptible or measurable, but severity and timing of changes to parameter measurements are not expected to be outside natural variability and are not expected to have effects on populations of wildlife species. Impacts would be outside critical periods.

Moderate - Effects to wildlife species would be perceptible and measurable, and severity and timing of changes to parameter measurements are expected to be sometimes outside natural

variability, and changes within natural variability might be long term. Populations of wildlife species might have small to moderate declines, but are expected to rebound to pre-impact numbers. No species would be at risk of being extirpated from the area. Some impacts might occur during key time periods.

Major - Effects to wildlife species would be measurable, and severity and timing of changes to parameter measurements are expected to be outside natural variability for long periods of time or even be permanent; changes within natural variability might be long term or permanent. Populations of wildlife species might have large declines, with population numbers significantly depressed. In extreme cases, a species might be at risk of being extirpated from the area, key ecosystem processes like nutrient cycling might be disrupted, or habitat for any species might be rendered not functional. Substantive impacts would occur during key time periods. Impacts would be long term to permanent.

Duration

Short-term – Two months or less for individual or habitat; five years or less for a population.

Long-term - Greater than two months for individual or habitat; greater than five years for a population.

Context

Localized - Impacts are confined to a small part of the population, habitat, or range.

Regional - Impacts would affect a widespread area of suitable habitat or the range of the population or species. If species only occur in one area and that entire area is affected, impact is considered regional since it impacts the entire population of the species.

Proposed Action

Impacts to wildlife species may include temporary displacement of suitable habitats during construction activities and approximately 1.9 acres of habitat loss due to the main access road, Road Improvement Zones, and the wireless communication tower site. Impacts to wildlife species are anticipated to be adverse, minor, short-term, and localized. Impacts to wildlife species habitat are anticipated to be adverse, minor, long-term, and localized. EPMs outlined in Section 2.1.7 would minimize any potential disturbance outside of the ROW.

3.3 Effects of the No Action Alternative

Under the No Action Alternative, none of the impacts associated with the Proposed Action would occur. The ROW would not be granted, and the access road and wireless communication tower site would not be constructed and surface disturbing activities would not occur. Socioeconomic conditions would remain the same as current conditions, and would not result in beneficial impacts similar to the Proposed Action by bringing the potential of more development to the area.

4 CUMULATIVE IMPACT ANALYSIS

4.1 Introduction

For the purpose of this EA, the cumulative impacts are the sum of all past, present, and reasonably foreseeable future actions (RFFAs) resulting primarily from mining, commercial activities and public uses. The purpose of the cumulative analysis in the EA is to evaluate the significance of the Proposed Action's contributions to cumulative impacts. A cumulative impact is defined under federal regulations as follows:

"...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 regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individual minor but collectively significant actions taken place over a period of time" (40 CFR 1508.7).

As required under the NEPA and the regulations implementing the NEPA, this chapter addresses those cumulative effects on the environmental resources in the Cumulative Effects Study Areas (CESAs) that could result from the implementation of the Proposed Action and reasonable alternatives, past actions, present actions, and RFFAs. The extent of the CESAs are based on geographic or biological limits in the area. The list of projects considered under the cumulative analysis may vary according to the resource being considered. In addition, the length of time for cumulative effects analysis would vary according to the duration of impacts from the Proposed Action on the particular resource.

For the purposes of this analysis and under federal regulations, 'impacts' and 'effects' are assumed to have the same meaning and are interchangeable. The cumulative impacts analysis was accomplished through the following three steps:

Step 1: Identify, describe, and map CESAs for each resource to be evaluated in this chapter.

Step 2: Define time frames, scenarios, and acreage estimates for cumulative impact analysis.

Step 3: Identify and quantify the location of possible specific impacts from the Proposed Action and judge the significance of these contributions to the overall impacts.

4.2 Cumulative Effects Study Area

Environmental consequences of the Proposed Action were previously evaluated in Chapter 3 for the various environmental resources. Discussed in the following sections are the resources with the potential to be cumulatively impacted by the Proposed Action within the identified CESAs. The discussions are based upon the previous analysis of each environmental resource. Based on the preceding analysis, the Proposed Action would not impact the following resources and would therefore have no cumulative impacts: Air Quality; Cultural Resources; Fire Management; Lands and Realty; Mineral Resources; Rangeland Management; Recreation; Socioeconomics; Visual Resources; Wastes (hazardous and solid); and Wild Horses and Burros. These resources are not further discussed in the cumulative impacts section.

The following six elements or resources have been brought forward for cumulative impact analysis: Migratory Birds; Noxious Weeds, Invasive and Non-native Species; Soils; Special Status Species; Vegetation; and Wildlife (General). The geographic area considered for further analysis of cumulative effects reflects each evaluated environmental resource and the potential area of impact to each from the Proposed Action as determined through the analysis in Chapter 3.

The CESA for analyzing cumulative impacts to Migratory Birds, Special Status Wildlife Species, and Wildlife (General) is defined as the Wildlife CESA, and is comprised of portions of NDOW hunt unit 155, HUC 6 subwatershed boundaries, McClusky Creek, Denay Creek, Fye Canyon, and Trail Canyon (Figure 4.2.1). This CESA encompasses approximately 28,780 acres.

The CESA for analyzing cumulative impacts to Noxious Weeds, Invasive and Non-native Species, Soils, and Vegetation is defined as the Vegetation CESA, and is comprised of portions of NDOW hunt unit 155 and HUC 6 subwatershed boundaries (Figure 4.2.1). This CESA encompasses approximately 49,457 acres.

4.2.1 Past, Present, and Reasonably Foreseeable Future Actions

4.2.1.1 Past and Present Actions

Past and present actions in the CESAs include the following: wildland fires; wildlife habitat management; vegetation treatments; livestock grazing; utility and other ROW construction and maintenance; mineral exploration; mining; and dispersed recreation.

Wildland Fires

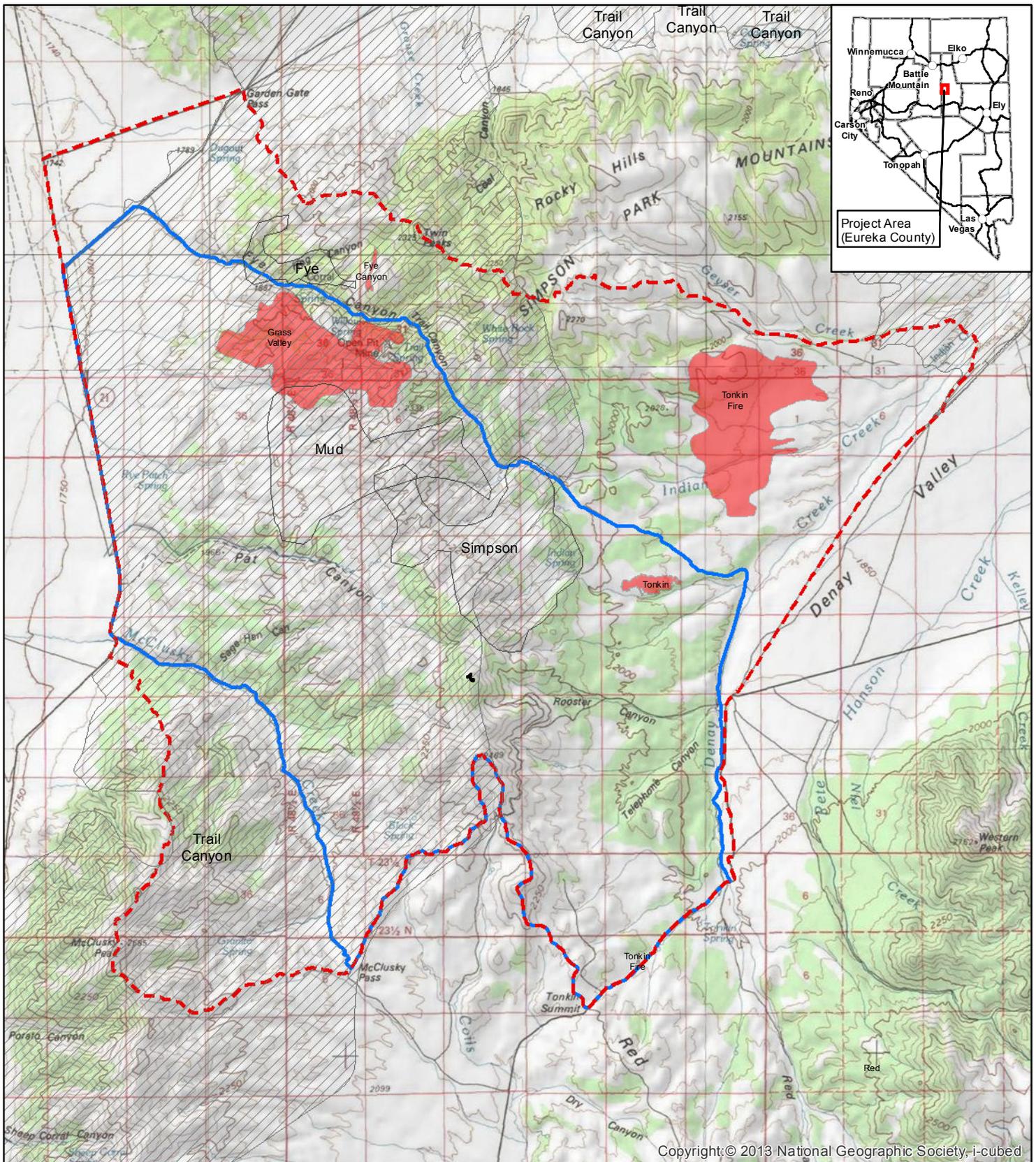
Although there have been no recorded wildland fires within the Project Area since 1999 (Trail Canyon fire), there has been wildland fire disturbance within the CESAs. The wildland fire disturbance in the CESAs is shown on Figure 4.2.1. Between 2000 and 2015, there were approximately 1,281 acres of wildland fire disturbance in the Wildlife CESA and approximately 2,656 acres of wildland fire disturbance in the Vegetation CESA.

Vegetation Treatments

Vegetation treatments occurred in both CESAs in 1999 associated with the Trail Canyon fire. There were approximately 30,474 acres of vegetation treatments in the Vegetation CESA, and approximately 19,323 acres of vegetation treatments in the Wildlife CESA.

Wildlife Habitat Management/Restoration/Hazardous Fuel Treatment

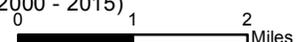
Research and management of wildlife are undertaken by the NDOW and the BLM and may include modification to existing habitat and rangeland facilities. Both CESAs encompass a portion of NDOW hunt unit 155. Portions of both CESAs are located in the Grass Valley and JD grazing allotments.



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Explanation

- Project Area
- Vegetation CESA (CESA for Noxious Weeds, Invasive and Non-native Species, Soils, and Vegetation)
- Wildlife CESA (CESA for Migratory Birds, Special Status Wildlife Species, and Wildlife [General])
- Fires (1910 - 1999)
- Fires (2000 - 2015)



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**TONKIN SUMMIT
 WIRELESS COMMUNICATION TOWER
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 Cumulative Effects Study Areas
 and Fire History**

Figure 4.2.1

04/22/2016

Rights-of-Way

The BLM’s LR2000 database (BLM 2016) was used to query the various types of ROWs that have been authorized or constructed within the CESAs by Section, Township, and Range, and include the following: roads; telecommunications; power transmission facilities; and irrigation and water facilities. The exact acreage of surface disturbance associated with these ROWs cannot be quantified; however, it is assumed that these types of ROWs and the construction and maintenance associated with these facilities would create a level of surface disturbance that would contribute to cumulative impacts to various resources. In addition, certain types of ROWs can fragment habitat or create a barrier or hazards for wildlife passage. The LR2000 database was queried on January 14, 2016, for both CESAs. Any newly approved ROWs that have been added to the LR2000 database after this date are not included in the analysis. The approximate total acreages of existing and approved ROWs within each CESA are listed in Table 4.2-1.

Table 4.2-1 Past and Present Rights-of-Way Acres in the CESAs

ROW Type	Wildlife CESA (acres)	Vegetation CESA (acres)
Roads	70	70
Telecommunications	8	8
Power Transmission	307	307
Irrigation/Water Facilities	28	28
Total	413	413

Source: BLM 2016

Mineral Exploration and Mining

The LR2000 database (BLM 2016) was queried by Section, Township, and Range to show the past and present mineral exploration or mining activities (i.e., authorized and closed Notices, authorized and closed plans of operation, and mineral material disposal sites) that have been issued within the CESAs. Past and present mineral exploration and mining activities in the CESAs include historic and current mineral exploration and mining operations. Table 4.2-2 shows the results of the LR2000 query, in acres, of the exploration and mining activities within the CESAs. The LR2000 database was queried on January 14, 2016, for both CESAs. Any newly authorized Notices or plans of operation added to the LR2000 database after this date are not included in the analysis.

Table 4.2-2: Past and Present Minerals Disturbance Acres in the CESAs

CESA	Authorization Status	Total Acres of Disturbance
Wildlife CESA	Authorized and Closed Notices	84
	Authorized and Closed Plans of Operation	1,005
	Wildlife CESA Total	1,089
Vegetation CESA	Authorized and Closed Notices	145

CESA	Authorization Status	Total Acres of Disturbance
	Authorized and Closed Plans of Operation	10,410
	Vegetation CESA Total	10,555

Source: BLM 2016

Dispersed Recreation

Historical and present recreational activities that have occurred within the CESAs consist primarily of dispersed recreation activities including motorcycle and OHV riding, horseback riding, mountain bicycling, camping, hiking, hunting (specifically for antelope and mule deer in NDOW Hunt Unit 155), rockhounding, photography, rock climbing, nature study, wildlife/wild horse/burro viewing, snowmobiling, and four wheel driving.

4.2.1.2 Reasonably Foreseeable Future Actions

RFFAs in the Wildlife CESA include livestock grazing, wildland fires, wildlife habitat management, ROW construction and maintenance, and dispersed recreation.

RFFAs in the Vegetation CESA include livestock grazing, wildland fires, wildlife habitat management, ROW construction and maintenance, and dispersed recreation.

4.3 Evaluation of Potential Cumulative Impacts

4.3.1 Migratory Birds

The CESA for migratory birds is the Wildlife CESA. This CESA encompasses approximately 28,780 acres and is shown on Figure 4.2.1.

Past and Present Actions: Past and present actions that could have impacted and may be currently impacting migratory birds and their habitat include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration and mining, livestock grazing, and dispersed recreation. Impacts to migratory birds and their habitat have resulted from the following: 1) indirect impacts from the destruction of habitat associated with building roads and clearing vegetation; 2) indirect impacts from the disruption from human presence or noise from construction equipment, water trucks, and 4WD 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. There are no specific data that quantify impacts to migratory birds and their habitat as a result of livestock grazing or dispersed recreation. However, impacts to migratory birds from livestock grazing include trampling of vegetation or nesting areas near streams, springs, or riparian areas within the Wildlife CESA. Impacts to migratory birds and their habitat from recreation activities include destruction of native vegetation or nesting areas from off-road vehicles that traveled off of established roadways.

Historic fires (2000–2015) have burned approximately 1,281 acres in this CESA (approximately four percent of the CESA). Authorized and closed mineral exploration and mining Notices and plans of operation total approximately 1,089 acres of surface disturbance. Approximately

413 acres of ROWs were issued within the Wildlife CESA that also had the potential to create surface disturbance and disturb migratory bird habitat and vegetation. There were also approximately 19,323 acres of the Trail Canyon Revegetation Project that occurred within the Wildlife CESA. The CESA is also comprised of NDOW Hunt Unit 155, which had the potential to create noise and disturbance to migratory birds, or remove or alter habitat. The Wildlife CESA encompasses portions of the Grass Valley and JD grazing allotments. Livestock grazing and associated management could have contributed to the spread of noxious weeds, invasive and non-native species, which could have had an indirect effect on migratory birds and their habitat. However, disturbance to migratory birds from past and present actions would have been reduced through reclamation and seeding of disturbed areas and natural recolonization of native species. The past and present actions that are quantifiable have disturbed approximately 77 percent of the CESA. There are no data on the number of acres reclaimed. State and federal regulations require reclamation on some types of projects; therefore, it is reasonable to assume that some areas have been reclaimed, become naturally stabilized, or have naturally revegetated over time.

RFFAs: Potential impacts to migratory birds and their habitat from livestock grazing, wildlife habitat management, dispersed recreation, ROW construction and maintenance, or loss of native vegetation associated with potential wildland fires are expected to continue. There are no specific data to quantify impacts to migratory birds or their habitat within the CESA as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires. There is one pending ROW project reported in LR2000 in the Wildlife CESA, which is the proposed Project.

4.3.1.1 Proposed Action

The Proposed Action (approximately 1.9 acres) would impact approximately 0.007 percent of the CESA. Quantifiable past and present actions and RFFA disturbance in the Wildlife CESA total approximately 22,108 acres, which results in an incremental impact from the Proposed Action of approximately 0.009 percent. Since there are limited quantifiable data for all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the Proposed Action. Project-related impacts would be localized, negligible and minimized due to implementation of the EPMs outlined in Section 2.1.7 and reclamation of incidentally disturbed areas. Therefore, based on the above analysis and findings, incremental impacts to migratory birds and their habitat as a result of the Proposed Action, when combined with the impacts from the past and present actions and RFFAs, are expected to be negligible.

4.3.2 **Noxious Weeds, Invasive and Non-native Species**

The CESA for noxious weeds, invasive and non-native species is the Vegetation CESA. This CESA encompasses approximately 49,457 acres and is shown on Figure 4.2.1.

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 weed, invasive or 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 2,656 acres in the Vegetation CESA (approximately five percent of the CESA). Authorized and closed mineral exploration and mining Notices and plans of operation total approximately 10,555 acres of surface disturbance. Approximately 413 acres of ROWs were issued within the Vegetation CESA that also had the potential to introduce noxious weeds, invasive and non-native species. There were also approximately 30,474 acres of the Trail Canyon Revegetation Project that occurred within the Vegetation CESA. The past and present actions that are quantifiable have disturbed approximately 89 percent of the CESA.

RFFAs: Potential impacts from noxious weeds, invasive and non-native species as a result of livestock grazing, wildlife habitat management, dispersed recreation, ROW construction and maintenance, 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. There is one pending ROW project reported in LR2000 in the Vegetation CESA, which is the proposed Project.

4.3.2.1 Proposed Action

The Proposed Action (approximately 1.9 acres) would impact approximately 0.004 percent of the CESA. Quantifiable past and present actions and RFFA disturbance in the Vegetation CESA total approximately 44,100 acres, which results in an incremental impact from the Proposed Action of approximately 0.004 percent. Since there are limited quantifiable data for 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 negligible.

4.3.3 **Soils**

The CESA for soils is the Vegetation CESA. This CESA encompasses approximately 49,457 acres and is shown on Figure 4.2.1.

Past and Present Actions: Past and present actions that could have impacted and may be currently impacting soils include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration, mining, livestock grazing, vegetation treatments, soil compaction due to travel by heavy equipment on unpaved roads, and dispersed recreation. These actions may have directly disturbed or impacted soils, or increased erosion or sedimentation potential. Soil disturbance has also been associated with wildland fires; however, fire rehabilitation and natural revegetation has occurred, stabilizing soil loss. Impacts from these activities include loss of soils productivity due to changes in soil physical properties, soil fertility, soil movement in response to water and wind erosion, and loss of soil structure due to compaction. There are no specific data to quantify impacts to soils from livestock grazing, wildlife habitat management, or dispersed recreation in the Vegetation CESA.

Historic fires (2000–2015) have burned approximately 2,656 acres in this CESA (approximately five percent of the CESA). Authorized and closed mineral exploration and mining Notices and plans of operation total approximately 10,555 acres of surface disturbance. Approximately 413 acres of ROWs were issued within the Vegetation CESA that also had the potential to create surface disturbance. There were also approximately 30,474 acres of the Trail Canyon Revegetation Project that occurred within the Vegetation CESA. The quantifiable past and present actions have disturbed approximately 89 percent of the CESA.

RFFAs: Potential wildland fires, wildlife habitat management, ROW construction and maintenance, livestock grazing, soil compaction due to travel by heavy equipment on unpaved roads, and dispersed recreation are expected to continue. There are no specific data to quantify impacts to soils as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires. There is one pending ROW project reported in LR2000 in the Vegetation CESA, which is the proposed Project.

4.3.3.1 Proposed Action

The Proposed Action (approximately 1.9 acres) would impact approximately 0.004 percent of the CESA. Quantifiable past and present actions and RFFA disturbance in the Vegetation CESA total approximately 44,100 acres, which results in an incremental impact from the Proposed Action of approximately 0.004 percent. Since there are limited quantifiable data for all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the Proposed Action. Based on the above analysis and findings, incremental impacts to soils as a result of the Proposed Action, when combined with the impacts from the past and present actions and RFFAs, are expected to be negligible.

4.3.4 **Special Status Species**

The CESA for special status species is the Wildlife CESA. This CESA encompasses approximately 28,780 acres and is shown on Figure 4.2.1.

Past and Present Actions: Past and present actions that could have impacted and may be currently impacting special status species and their habitat include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration, mining, livestock grazing, and dispersed recreation. These activities have the potential to impact water resources and wildlife habitat, or result in direct impacts to individuals in travel routes, or loss of forage, cover, and habitat, as well as disturbance of mating and brood rearing practices.

Historic fires (2000–2015) have burned approximately 1,281 acres in this CESA (approximately four percent of the CESA). Authorized and closed mineral exploration and mining Notices and plans of operation total approximately 1,089 acres of surface disturbance. Approximately 413 acres of ROWs were issued within the Wildlife CESA that also had the potential to create surface disturbance and disturb special status species and their habitat and vegetation. There were also approximately 19,323 acres of the Trail Canyon Revegetation Project that occurred within the Wildlife CESA. The CESA is also comprised of the NDOW Hunt Unit 155, which had the potential to create noise and disturbance to special status species, or remove or alter habitat. The Wildlife CESA encompasses portions of the Grass Valley and JD grazing allotments. Livestock grazing and associated management could have contributed to the spread of noxious weeds, invasive and non-native species, which could have had an indirect effect on

special status species. However, disturbance to special status species and their habitat from past and present actions would have been reduced through reclamation and seeding of disturbed areas and natural recolonization of native species. The past and present actions that are quantifiable have disturbed approximately 77 percent of the CESA. There are no data on the number of acres reclaimed. State and federal regulations require reclamation; therefore, it is reasonable to assume that some areas have been reclaimed, become naturally stabilized, or have naturally revegetated over time.

RFFAs: Potential impacts to special status species and their habitat from livestock grazing, wildlife habitat management, dispersed recreation, ROW construction and maintenance, or loss of native vegetation associated with potential wildland fires are expected to continue. There are no specific data to quantify impacts to special status species or their habitat within the CESA as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires. There is one pending ROW project reported in LR2000 in the Wildlife CESA, which is the proposed Project.

4.3.4.1 Proposed Action

The Proposed Action (approximately 1.9 acres) would impact approximately 0.007 percent of the CESA. Quantifiable past and present actions and RFFA disturbance in the Wildlife CESA total approximately 22,108 acres, which results in an incremental impact from the Proposed Action of approximately 0.009 percent. Since there are limited quantifiable data for all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the Proposed Action. Project-related impacts would be localized, temporary and negligible due to implementation of the EPMs outlined in Section 2.1.7 and concurrent reclamation. Therefore, based on the above analysis and findings, incremental impacts to special status species and their habitat as a result of the Proposed Action, when combined with the impacts from the past and present actions and RFFAs, are expected to be negligible.

4.3.5 **Vegetation**

The CESA for vegetation is the Vegetation CESA. This CESA encompasses approximately 49,457 acres and is shown on Figure 4.2.1.

Past and Present Actions: Past and present actions that could have impacted and may be currently impacting vegetation include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration, mining, livestock grazing, vegetation treatments that altered the structure, composition, and ecology of plant communities, and dispersed recreation. There are no specific data to quantify impacts to vegetation from livestock grazing, wildlife habitat management, or dispersed recreation. Impacts caused by hunting activities and associated off-road vehicle travel include the introduction of noxious weeds, invasive or non-native species and trampled vegetation.

Historic fires (2000–2015) have burned approximately 2,656 acres in this CESA (approximately five percent of the CESA). Authorized and closed mineral exploration and mining Notices and plans of operation total approximately 10,555 acres of surface disturbance. Approximately 413 acres of ROWs were issued within the Vegetation CESA that also had the potential to create surface disturbance. There were also approximately 30,474 acres of the Trail Canyon

Revegetation Project that occurred within the Vegetation CESA. The quantifiable past and present actions have disturbed approximately 89 percent of the CESA.

RFFAs: Potential wildland fires, wildlife habitat management, ROW construction and maintenance, livestock grazing, and dispersed recreation are expected to continue. There are no specific data to quantify impacts to vegetation as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires. There is one pending ROW project reported in LR2000 in the Vegetation CESA, which is the proposed Project.

4.3.5.1 Proposed Action

The Proposed Action (approximately 1.9 acres) would impact approximately 0.004 percent of the CESA. Quantifiable past and present actions and RFFA disturbance in the Vegetation CESA total approximately 44,100 acres, which results in an incremental impact from the Proposed Action of approximately 0.004 percent. Since there are limited quantifiable data for all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the Proposed Action. Based on the above analysis and findings, incremental impacts to vegetation as a result of the Proposed Action, when combined with the impacts from the past and present actions and RFFAs, are expected to be localized, temporary and negligible.

4.3.6 Wildlife

The CESA for wildlife is the Wildlife CESA. This CESA encompasses approximately 28,780 acres and is shown on Figure 4.2.1.

Past and Present Actions: Past and present actions that could have impacted and may be currently impacting wildlife and their habitat include wildland fires, wildlife habitat management, ROW construction and maintenance, mineral exploration, mining, livestock grazing, and dispersed recreation. These activities have the potential to impact water resources and wildlife habitat, or result in direct impacts to individuals in travel routes, or loss of forage, cover, and habitat, as well as disturbance of mating and brood rearing practices.

Historic fires (2000–2015) have burned approximately 1,281 acres in this CESA (approximately four percent of the CESA). Authorized and closed mineral exploration and mining Notices and plans of operation total approximately 1,089 acres of surface disturbance. Approximately 413 acres of ROWs were also issued within the Wildlife CESA that had the potential to create surface disturbance and disturb wildlife and their habitat and vegetation. There were also approximately 19,323 acres of the Trail Canyon Revegetation Project that occurred within the Wildlife CESA. The CESA is also comprised of the NDOW Hunt Unit 155, which had the potential to create noise and disturbance to wildlife, or remove or alter habitat. The Wildlife CESA encompasses portions of the Grass Valley and JD grazing allotments. Livestock grazing and associated management could have contributed to the spread of noxious weeds, invasive and non-native species, which could have had an indirect effect on wildlife. However, disturbance to wildlife and their habitat from past and present actions would have been reduced through reclamation and seeding of disturbed areas and natural recolonization of native species. The past and present actions that are quantifiable have disturbed approximately 77 percent of the CESA. There are no data on the number of acres reclaimed. State and federal regulations require

reclamation; therefore, it is reasonable to assume that some areas have been reclaimed, become naturally stabilized, or have naturally revegetated over time.

RFFAs: Potential impacts to wildlife and their habitat from livestock grazing, wildlife habitat management, dispersed recreation, ROW construction and maintenance, or loss of native vegetation associated with potential wildland fires are expected to continue. There are no specific data to quantify impacts to wildlife or their habitat within the CESA as a result of dispersed recreation, livestock grazing, wildlife habitat management, or potential wildland fires. There is one pending ROW project reported in LR2000 in the Wildlife CESA, which is the proposed Project.

4.3.6.1 Proposed Action

The Proposed Action (approximately 1.9 acres) would impact approximately 0.003 percent of the CESA. Quantifiable past and present actions and RFFA disturbance in the Wildlife CESA total approximately 22,108 acres, which results in an incremental impact from the Proposed Action of approximately 0.009 percent. Since there are limited quantifiable data for all activities within the CESA, this calculation is a conservative analysis of the potential incremental impact of the Proposed Action. Project-related impacts would be localized, temporary and negligible due to implementation of the EPMS outlined in Section 2.1.7 and concurrent reclamation. Therefore, based on the above analysis and findings, incremental impacts to wildlife species and their habitat as a result of the Proposed Action, when combined with the impacts from the past and present actions and RFFAs, are expected to be negligible.

5 CONSULTATION AND COORDINATION

This EA was prepared at the direction of the BLM, MLFO, Battle Mountain District, Nevada, by Enviroscientists, Inc., under a contract with Commnet. The following is a list of persons, groups, and agencies consulted, as well as a list of individuals responsible for the preparation of this EA.

5.1 Persons, Groups, and Agencies Consulted

Federal Agencies

United States Fish and Wildlife Service

State Agencies

Eric Miskow, NNHP
Bonnie Weller, NDOW

Native Americans

Battle Mountain Band, South Fork Band, and Elko Band of the Te-Moak Tribe of Western Shoshone
Duckwater Shoshone Tribe

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