

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

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**Environmental Assessment  
New Pass Peak Distribution Line Project**

**April 2016**



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# **Environmental Assessment**

## **New Pass Peak Distribution Line Project**

**Prepared by**  
**U.S. Department of the Interior**  
**Bureau of Land Management**  
**Carson City District, Stillwater Field Office**

**April 2016**

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# List of Acronyms and Abbreviations

**ACEC:**

Area of Critical Environmental Concern

**AMM:**

Avoidance and Minimization Measure

**AMSL:**

Above Mean Sea Level

**ARPA:**

Archaeological Resources Protection Act

**AUM:**

Animal Month Unit

**BCC:**

Birds of Conservation Concern

**BCR:**

Bird Conservation Region

**BGEPA:**

Bald and Golden Eagle Protection Act

**BLM:**

Bureau of Land Management

**BMD:**

Battle Mountain District

**BMP:**

Best Management Practice

**BSR:**

Biological Survey Report

**CCD:**

Carson City District

**CESA:**

Cumulative Effect Study Area

**CFR:**

Code of Federal Regulations

**CRMP:**

Consolidated Resource Management Plan

**EA:**

Environmental Assessment

**EIS:**

Environmental Impact Statement

**EO:**

Executive Order

**ESA:**

Endangered Species Act

**FLPMA:**

Federal Land Policy and Management Act

**GHG:**

Greenhouse Gas

**GHMA:**

General Habitat Management Area

**GIS:**

Geographic Information Systems

**GRSG:**

Greater Sage-Grouse

**HMA:**

Herd Management Area

**IM:**

Instruction Memorandum

**IPaC:**

Information, Planning, and Conservation

**KOP:**

Key Observation Point

**kV:**

kilovolt

**LUPA:**

Land Use Plan Amendment

**MBTA:**

Migratory Bird Treaty Act

**MD:**

Management Decision

**MDB&M:**

Mount Diablo Base and Meridian

**MOU:**

Memorandum of Understanding

**NAC:**

Nevada Administrative Code

**NAGPRA:**

Native American Graves Protection and Repatriation Act

**NDEP:**

Nevada Division of Environmental Protection

**NDOW:**

Nevada Division of Wildlife

**NDPES:**

National Pollutant Discharge Elimination System

**NEPA:**

National Environmental Policy Act

**NHDA:**

National Hydrography Dataset

**NHPA:**

National Historic Preservation Act

**NOI:**

Notice of Intent

**NRCS:**

Natural Resources Conservation Service

**NRS:**

Nevada Revised Statute

**OHMA:**

Other Habitat Management Area

**OHV:**

Off-Highway Vehicle

**PHMA:**

Priority Habitat Management Area

**PL:**

Public Law

**PPH:**

Preliminary Priority Habitat

**PT:**

Proposed Threatened

**RDF:**

Required Design Features

**RFFA:**

Reasonably Foreseeable Future Action

**RMP:**

Resource Management Plan

**ROD:**

Record of Decision

**ROW:**

Right-of-way

**SFA:**

Sagebrush Focal Area

**SHPO:**

State Historic Preservation Office

**SPPCo:**

Sierra Pacific Power Company (doing business as NV Energy)

**SWPPP:**

Stormwater Pollution Prevention Plan

**SWReGAP:**

Southwest Region Gap Analysis Project

**T&R:**

Township and Range

**USC:**

United States Code

**USFWS:**

U.S. Fish and Wildlife Service

**USGS:**

U.S. Geological Survey

**VRI:**

Visual Resource Management

**VRM:**

Visual Resource Inventory

**WSA:**

Wilderness Study Area

# Glossary

**Angle Structures:**

Utility poles used for orienting the line towards a different direction through an “angle.” Angle poles may also have one or more guy wires and anchors depending upon the degree of the angle.

**Conductor:**

An electrical cable tied between pole structures along a transmission or distribution line.

**Distribution Line:**

Lower voltage power lines often sited near the final stage in the delivery of electricity from the transmission system to end users.

**Distribution Structure:**

Power equipment along a transmission or distribution line that includes the pole structure, and other equipment needed to deliver electrical power to an area.

**Guy Wire:**

A tensioned cable on pole structures used to support unbalanced lateral loads.

**Junction Enclosures:**

Metal enclosures used for pulling conductors between sections and splicing them together. Enclosures generally measure approximately 3 feet wide by 3 feet long by 3 feet tall.

**Non-Specular:**

Mechanically or chemically treated aluminum surfaces applied to conductors to reduce reflectivity.

**Pull Site:**

The area at each end of a section of the power line used to string together the conductor between the pole structures using stringing pulleys.

**Riser Pole:**

The pole used to transition between overhead construction and underground construction.

**Sock Line:**

A small and light cable used to pull a conductor through pole structures to the next pulling site. Also the line used to pull the conductor between junction enclosures through the buried conduit in the underground portion.

**Staging Area:**

Location where vehicles, equipment, and construction materials and supplies are stored and assembled before use.

**Tangent Structures:**

Also known as “line” towers, these structures are the most common poles along a distribution line.

**Transmission Line:**

High voltage lines that carry electricity over long distances, such as from a power station to a city, or from a grid to a city.

**Traveler:**

TravelerA pulley used during installation of the conductors. It functions by pulling the conductor through the pole structure to the pull site.

# **Chapter 1. Introduction**

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## **Identifying Information**

New Pass Peak Distribution Line Environmental Assessment, EA No.: DOI-BLM-NV-C010-2015-0030-EA

## **Location of Proposed Action**

The project site is located approximately 25 miles northwest of Austin, Nevada largely within Churchill County with a portion of the proposed distribution line located within Lander County, Nevada. The new distribution line would originate from an existing Sierra Pacific Power Company (SPPCo) distribution power line, authorized under BLM ROW Serial No. N-11441, which parallels Alpine Road within the Edwards Creek Valley near a private parcel currently in use as agricultural fields. The proposed line would extend eastward across the valley and up the western slope of New Pass Peak to an existing communications site complex located adjacent to New Pass Peak. The total length of the proposed line is approximately 30,563 feet (5.77 miles); the majority of the alignment (29,515 feet or 5.59 miles) would occur on lands managed by the Bureau of Land Management (BLM).

The proposed distribution line would originate off a section of the Austin 201 Distribution Line, adjacent to an agricultural field to the west of Alpine Road, within Section 26 of Township 21 North, Range 39 East (T. 21 N., R. 39 E.) of the Mount Diablo Base and Meridian (MDB&M). The new distribution line would cross Sections 25 and 26 of T. 21 N., R. 39 E., and then Sections 28, 29, and 30, of T. 21 N., R. 40 E., as it travels up the western slope of New Pass Peak for approximately 21,278 feet (4.03 miles) to the base of the steep, upper portion of the mountain. The line would then be converted to an underground configuration beginning near the bottom of a set of switchbacks on a reclaimed (i.e. revegetated) access road leading from the top of the mountain to the Lombardo Turquoise Mill & Mine (also known as the Shoshone Turquoise Mine) on the west face of New Pass Peak. From the bottom of the switchbacks, the line would travel straight up the mountain to an existing, in-use access road. The switchbacks may be used, if needed, for temporary access to transport materials and equipment while installing the underground portion of the line. The underground line would be located within the roadbed of the existing access roads from the top of the switchbacks to the existing communication site complex located within Section 33 of T. 21 N., R. 40 E. The underground portion of the line would be approximately 9,187 feet (1.74 miles) long.

## **Name and Location of Preparing Office**

Bureau of Land Management, Carson City District, Stillwater Field Office

5665 Morgan Mill Road

Carson City, Nevada 89701

## **Lead Office and Number**

Stillwater Field Office LLNVC01000

## **Project Function Code, Lease, Serial or Case File Number**

Project Serial No.: N-93347

## **Applicant Name**

Sierra Pacific Power Company (doing business as NV Energy), 6100 Neil Road, Reno, Nevada 89511

## **1.1. Background**

SPPCo proposes to construct, maintain, and operate the New Pass Peak Distribution Line Project (Project). The project would be located primarily on federal lands administered by the BLM, mostly within the Carson City District (CCD), Stillwater Field Office. Segments of the line would briefly cross into the Battle Mountain District (BMD), Mount Lewis Field Office, along the crest of New Pass Peak. The project would traverse a portion of a private parcel associated with the Lombardo Turquoise Mill & Mine (Shoshone Turquoise Mine) on New Pass Peak. The proposed distribution line would be located in a remote area approximately 25 miles northwest of the unincorporated community of Austin, Nevada and six and a half miles north of US Highway 50. The majority of the project area is located in Churchill County, Nevada (Stillwater Field Office) with a small portion of the project area located in Lander County, Nevada (Mount Lewis Field Office). The project would traverse approximately 29,515 feet (5.59 miles) of land managed by the BLM, and approximately 948 feet (0.18 miles) of private land for a total of 30,463 feet (5.77 miles).

The project would include construction of a new 24.9 kilovolt (kV) distribution line from an existing distribution line located within the Edwards Creek Valley to an existing communications site complex located on New Pass Peak. Implementation of the project would provide reliable commercial electrical service to the communications site complex, which is currently powered by a combination of solar panels and propane-fueled generators. The commercial electrical service provided would be consistent with the Telecommunications Act of 1996, which promotes the deployment of essential and reliable wireless telecommunications technology (Godfrey 2015). Figure 1 illustrates the general location of the project, including the proposed distribution line and access roads (see Appendix A). Figures 2 through 5 illustrate the distribution line structures (see Appendix A).

## **1.2. Purpose and Need for Action**

### *SPPCo Purpose and Need*

SPPCo's purpose for the action is to provide commercial electrical service to the New Pass Peak communications site complex, which is utilized by several communications companies (SPPCo 2015) in Churchill and Lander Counties, Nevada. Verizon Communications requested the establishment of this specific electrical distribution line, consistent with the Telecommunications Act of 1996, in order to promote the deployment of essential, reliable, and redundant telecommunications power source at the New Pass Peak communications site complex. The SPPCo's need for the project is derived from Verizon's request for a reliable power source in support of its telecommunications facility, which is currently provided by a combination of propane-fueled generators and solar panels. Specifically, the project would address reliability constraints associated with the existing propane-fueled generators and solar panels. The additional energy source would also provide safe, reliable, efficient, and commercial electrical services to the communications site complex.

### *Agency Purpose and Need*

The purpose of the action is to provide SPPCo access to public lands to deliver commercial electrical service to the approved wireless communications facilities on New Pass Peak. The need for the Proposed Action is established by the BLM's responsibility under FLPMA to respond to a ROW application submitted by SPPCo to construct and operate a power distribution line.

## **1.3. Land Use Plan Conformance Statement**

Implementation of the Proposed Action would be consistent with established land use plans where the Proposed Action would be located. Specifically, the implementation of the Proposed Action would be consistent with the Carson City District Consolidated Resource Management Plan and the Shoshone-Eureka Resource Management Plan, both summarized below.

### **Carson City District Consolidated Resource Management Plan**

Public lands administered by the BLM CCD, Stillwater Field Office are managed in accordance with the CCD CRMP, which is maintained and administered in compliance with the FLPMA of 1976, as amended.

The Proposed Action evaluated in this EA would be consistent with management objectives and decisions established in the CCD CRMP. Specifically, the Proposed Action is consistent with the Communication Site and Right-of-Way Corridor Sections management actions and decisions (BLM 2001a). The proposed ROW request and connection to an existing communication site is also consistent with the CCD CRMP Rights-of-Way and Communication Sites map (BLM 2001b).

#### *Communication Site Section*

The New Pass Peak area is specifically referenced in the Communication Sites section of the CCD CRMP on page COM-1. The Communication Sites section summarizes land use allocations for communication sites in various planning areas and units within the District. For example, Management Action/Decision Number 3 states that the New Pass area (i.e., the proposed project area) is a preferred location to locate communication sites. The decision states that communication sites should minimize surface disturbance by grouping future communication facilities at locations where existing facilities occur, access is reasonably available, terrain is appropriate for communication facility needs, and other resource values are limited (BLM 2001a). Further, Management Action/Decision Number 7 states current standard operating procedures require that each proposal for an individual communication site would be analyzed in a project-specific environmental analysis (BLM 2001a).

#### *Right-of-Way Corridor Section*

The Right-of-Way Corridor objectives and selected provisions are referenced in the Right-of-Way Corridors section of the CCD CRMP on page ROW-1. This section summarizes the preferred outcome of providing an east-west and north-south network of ROW corridors within the District. For example, Management Action/Decision Number 1 designates 686 miles of ROW, which includes existing transmission lines, and identifies 218 miles of planning corridors.

Management Action/Decision 4 and Action/Decision 5 indicate that there is currently a planning corridor running from Austin to Dixie Valley, and from Dixie Valley to southern California. While the Proposed Action is not located within a special designation area, the Dixie Valley is located to the east of the project area; the distribution line established via the Proposed Action would connect to an existing distribution line (i.e., the Austin 201 Distribution Line) that connects to transmission line facilities within this corridor at the Austin substation.

### *Visual Resources Management Section*

The Proposed Action is in conformance with Visual Resources Management (VRM) section of the CCD CRMP. Specifically, on pages VRM-1 through VRM-4:

Interim visual management objectives are established where a project is proposed and there are no land use planning level designated VRM objectives in existence. The interim objectives are developed using the guidelines in Handbook Section 8410 and must conform to the land use allocations set forth in the current land use plan, which covers the project area. The designation of interim VRM objectives will not require a plan amendment unless the project itself requires one.

### **Shoshone-Eureka Resource Management Plan**

A small section of public lands along the east side of the crest of New Pass Peak are within the BMD. These lands are administered by the Mount Lewis Field Office and are managed in accordance with the 1986 Shoshone-Eureka RMP, which is maintained and administered in compliance with the FLPMA of 1976, as amended.

The Proposed Action evaluated in this EA would be consistent with management objectives and decisions established in the Shoshone-Eureka RMP and Record of Decision (ROD). Specifically, the Proposed Action is consistent with the Utility Corridors (Section 3) Management Decisions (MD) (BLM 1986a). The proposed ROW request and connection to an existing communication site, including use of the existing road along the top of New Pass Peak that occurs within the BMD Mount Lewis Field Office is also consistent with the Shoshone-Eureka RMP Utility Corridors map (BLM 1986a).

### *Utility Corridors Management Decision*

Utility corridor management decisions are summarized in Part II of the Shoshone-Eureka RMP ROD. The Proposed Action is consistent with both objectives listed under the Resource Decisions.

Objective 1, as listed on page 17 of the Shoshone-Eureka RMP ROD states: “to ensure a system for transmission of utilities through the resource area by establishing an east-west and north-south network of utility corridors.”

Objective 2, as listed on page 18 of the Shoshone-Eureka RMP ROD states: “to minimize adverse impacts to the environment by concentrating compatible rights-of-way in designated corridors that avoid sensitive resource values.”

Utility corridor management decisions are referenced in Section 3, on page 3 of the ROD. This section designates 112 miles of utility corridors, which includes existing transmission lines and identifies an additional 167 miles of planning corridors, as shown on the Shoshone RMP Utility Corridors map (Map 3).

As shown on Map 3, Land Tenure Adjustments and Utility Corridors, the planning area east of the top of New Pass Peak within the Shoshone-Eureka RMP contains an existing utility corridor, connecting to a hub of various planned utility corridors near Austin, Nevada.

Section 1, Part B, of the Utility Corridors Management Actions, page 18 specifically references New Pass Peak. This section references designating a corridor including the existing 230 kV powerline ROW from the summit of Simpson Creek on the east border of the resource area to New Pass Summit on the west border (excluding the portion which crosses the Toiyabe National Forest).

### **Approved Greater Sage Grouse Plan Amendments**

The Proposed Action would be consistent with Greater Sage-Grouse (GRSG) conservation measures outlined in the *Record of Decision and Approved Resource Management Plan Amendments for the Great Basin Region, Including the Greater Sage-Grouse Sub-Regions of Idaho and Southwestern Montana, Nevada and Northeastern California, Oregon, and Utah* (Approved Greater Sage Grouse Plan Amendment) (September 2015). The Approved Greater Sage Grouse Plan Amendment is the baseline plan for the management of GRSG in northeastern California and Nevada. It identifies appropriate measures in existing land use plans intended to conserve, enhance, and restore GRSG habitat by avoiding, minimizing, or compensating for unavoidable impacts, such as habitat fragmentation from infrastructure development (BLM 2015b). Required Design Features (RDFs) are discussed in Section 3.7 (Special Status Animal Species) within the analysis of Environmental Consequences under the Proposed Action heading; applicable RDFs are listed under the Avoidance and Mitigation Measures in the same location. The Approved Greater Sage Grouse Plan Amendment also presents goals, objectives, and management decisions (MDs) for protecting and preserving GRSG and its habitat on BLM lands (BLM 2015b).

## **1.4. Relationships to Statutes, Regulations, Plans and Environmental Analysis**

The FLPMA of 1976 is the principal law governing how the BLM manages public lands. In accordance with Section 102(a)(7) of the FLPMA, as amended, public lands are managed for multiple uses and sustained yield of public land resources for both present and future generations, together with the other policy declarations in Section 102(a). The Secretary of Interior is authorized to grant ROW on public lands under the FLPMA for the construction and operation of infrastructure used in the generation, transmission, and distribution of electric energy (Section 501[a][4]) (DOI 2001). The Proposed Action and alternatives are consistent with the following representative laws, statutes, regulations, and planning documents:

- Federal Land Policy and Management Act of 1976 (FLPMA), as amended;
- 43 Code of Federal Regulations (CFR), Part 2800;
- Federal Endangered Species Act of 1973 (Federal ESA), as amended;
- Clean Water Act of 1972 (CWA), as amended;
- Clean Air Act of 1970 (CAA), as amended;
- Migratory Bird Treaty Act of 1918 (MBTA), as amended;
- National Historic Preservation Act (16 USC 470f) (NHPA);
- Archaeological Resources Protection Act (ARPA);
- Native American Graves Protection and Repatriation Act (NAGPRA);

- Indian Sacred Sites – Executive Order (EO) 13007;
- Consultation and Coordination with Indian Tribal Governments – EO 13175; and
- Council on Environmental Quality, Title 40 CFR, part 1500.

The Proposed Action would also comply with the National Environmental Policy Act of 1969 (NEPA) by disclosing and evaluating potential environmental effects from implementation of the proposed alternatives. In addition to the federal, state, and local statutes, regulations, and plans listed above, the Proposed Action would also be consistent with applicable BLM policies, plans, and protocols.

## **1.5. Decision to Be Made**

The BLM will decide whether or not to grant a ROW to SPPCo, and if so, under what terms and conditions. Consistent with the regulations found at 43 CFR 2805.10(a)(1), the BLM may include terms, conditions, and stipulations it determines to be in the public interest, which may include modifying the proposed use or changing the route or location of the proposed facilities. If the BLM approves the ROW, the approval would allow the construction and operation of the proposed New Pass Peak Distribution Line and associated infrastructure. Additionally, the BLM would establish interim VRM classes for the locations where the distribution line and access roads would be developed.

## **1.6. Scoping, Public Involvement and Issues**

On March 13, 2015, the BLM Stillwater Field Office conducted internal scoping of the Proposed Action. An interdisciplinary team of BLM resource specialists (ID team) reviewed the Proposed Action and alternatives to determine the appropriate scope of the environmental topics that needed to be carried forward for further analysis in this EA. Environmental resources that were not present, or were determined to be present but not affected are not carried forward for further analysis. Environmental resources that were present and potentially affected may be carried forward in the document if there are issues which necessitate a detailed analysis. Sections 3.1 (Supplemental Authorities) and 3.2 (Resources or Uses Other Than Supplemental Authorities) contain lists of the resource topics evaluated by the ID team and the results of the review.

# **Chapter 2. Proposed Action and Alternatives**

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## 2.1. Proposed Action

SPPCo is requesting a ROW grant from the BLM for a new 29,515 feet (5.59 mile) long, 40-foot-wide distribution line ROW. Project components would include construction of a permanent overhead single-pole and underground 24.9 kV electrical distribution line; a lower and upper adjacent 8-foot wide access road; and other project components, including temporary access roads, pull sites, and staging areas. The ROW would occupy approximately 27 acres of federal land. Additional project information is contained in SPPCo's Preliminary Plan of Development (PPOD) (see Appendix B).

### 2.1.1. Temporary Project Features

#### Temporary Construction Corridor/Right-of-Way Grant Request

The construction corridor, also referred to as the temporary ROW request, includes a 300-foot wide corridor for the overhead portion of the distribution line, a 900-foot wide corridor for the switchback area, and a 100-foot wide corridor for the underground portion placed next to the existing access road on the top of New Pass Peak. The construction corridor would temporarily occupy approximately 201.2 acres. Additional project staging areas would be located outside the temporary construction corridor near the main access roads.

The following sections describe the temporary project features that would occur within the construction corridor. The temporary construction corridor would contain work areas, pull sites, and staging areas for equipment. The majority of temporary and permanent Proposed Action activities would be limited to specific areas within the temporary construction corridor and would not utilize the entire width of approved corridor or staging areas. The additional temporary width is intended to provide flexibility during construction to locate permanent project features according to the local topography

#### Structure Work Areas

The distribution structures, which include pole locations (tangent, angle, and riser pole structures) on the overhead portion and small above-ground junction enclosures on the underground portion that measure three-feet wide by three-feet long by three feet tall (see Figure 5 in Appendix A) (also see Overhead Distribution Line and Underground Distribution Line descriptions in Section 2.1.2 below), would be installed from the edge of the approved access roads. Each pole location on the overhead portion would physically disturb approximately 25 square feet of land to accommodate boring a hole, and temporarily stockpiling spoil material. The number of poles necessary to complete the overhead portion would be determined once a final route has been selected and the line is engineered.

For discussion purposes, an average of one pole would be needed every 250 feet along the 21,278 feet (4.03 miles) of overhead distribution line. This would result in approximately 85 poles that would temporarily disturb a total of approximately 0.05 acres of public lands. Along the underground portion, each above-ground junction enclosure would create approximately 16 square feet (approximately 0.002 acres) of temporary disturbance. Additional temporary disturbance would occur from trenching the underground distribution line from its normal course to the junction structure. Six above-ground junction enclosures are currently anticipated along the underground distribution line.

## Roads

During construction, SPPCo would establish service roads along the lower, overhead segment and along the upper, underground segment above the switchbacks. The service roads would generally be 8 feet wide, however up to 12 feet may be disturbed by cut and fill excavation during construction. The lower service road would generally be located under the distribution line. In locations where topography prevents the service road from remaining under the distribution line, the service road would be routed within the temporary 300-foot wide ROW, to the greatest extent practicable, to maintain a grade of 20 percent or less. If local topography does not allow for the service road to be constructed at less than a 20 percent grade, the temporary ROW width may be amended by the BLM to accommodate the final route following additional site-specific review. Erosion and drainage control structures (e.g. culverts, water bars, wing ditches, etc.) would be constructed as needed. Additional short access roads (i.e. spur roads) to individual distribution structure locations would be constructed as needed from the main service road.

The previously reclaimed switchbacks may be reopened to allow temporary access during construction. Following construction, the switchbacks would be reclaimed to preconstruction conditions and reseeded; they would not be kept open for maintenance or other uses, such as for off-highway vehicles (OHV).

The majority of the distribution structures would be constructed from the 8 feet wide permanent service road, and any disturbance beyond the permanent service road would be limited to the extent practicable. Disturbances outside the width of the permanent service road would be restored and reseeded (with a BLM approved seed mix) following construction.

## Pull Sites

Pull sites are the areas at each end of a section of the distribution line where equipment is positioned to pull the conductor (i.e., electrical line) into place between the pole structures. Distribution conductor is typically delivered to a project site on large reels in 10,000-foot segments. Given the length of the distribution conductor, pull sites are typically located approximately every 10,000 feet along linear sections of a distribution line, or at major angle points along a distribution line. Linear sections of the distribution line are referred to as line segments.

During conductor installation, a light cable called a “sock line” is pulled from a motorized reel on a line truck near the end of the line segment. The sock line runs through pulleys mounted to the poles (travelers) to another motorized reel at the pull site at the other end of the 10,000-foot segment. Next, the sock line is attached to the distribution conductor near the pull site and the motorized reel is used to pull the sock line and the heavier conductor through the travelers to the pull site at the other end. Once the conductor reaches the next pull site, the conductor is sagged and tensioned to design specifications, attached to the utility pole’s insulators, and the travelers are removed. This process is repeated for each conductor within the line segment before moving on to the next line segment.

A total of six pull sites, each measuring approximately 100-feet long by 50-feet wide (approximately .115 acre), would be needed to attach the conductor to the distribution line. The proposed locations of each pull site are shown in Figure 1 of Appendix A. The proposed pull site locations are in areas consisting of mainly grasses and pinyon juniper trees burnt from previous

wildfires. Trees and snags would be removed as needed within pull sites. Once construction is complete, each pull site would be reclaimed and reseeded. The six pull sites would temporarily disturb up to .75 acres of public lands.

### **Staging Areas**

Staging areas are locations where vehicles, equipment, and construction materials and supplies are stored and assembled before use. The Proposed Action would include two staging areas; each staging area would measure approximately 200-feet by 200-feet. One staging area would be located immediately off of Alpine Road, south of the proposed overhead alignment. The second staging area would be located in the vicinity of communication site complex, at a turn-off on the western side of the upper access road. Each staging area currently consists of a previously graded and leveled area, therefore preparation work would be limited to clearing and fencing. The two staging areas would temporarily disturb up to 1.84 acres of public land.

## **2.1.2. Permanent Project Features**

### **Overhead Distribution Line**

The overhead portion of the distribution line would consist of both single wooden tangent and angle structures, as well as a riser pole where the underground portion begins. Tangent structures, also known as “line” towers, are the most common structures along a distribution line. The wooden tangent poles would measure 45-feet tall and would be initially installed as a single-phase powerline with two conductors (See Figure 2, Appendix A). The poles would measure 45 feet in their entirety; 6.5 feet would be buried and 38.5 feet would be above-ground. Angle structures are typically larger poles used for orienting the line towards a different direction through an “angle”. Angle poles may also have one or more guy wires and ground anchors depending upon the degree of the angle (See Figure 3, Appendix A). The overhead portion would include height allowances for future conversion to a three-phase line (described below). A riser pole, a structure used to transition from overhead construction to underground construction, (See Figure 4, Appendix A) would be installed where the overhead and underground sections meet, near the bottom of the existing switchbacks.

### **Conversion to a Three-Phase Line System**

Conversion of the single-phase distribution line to a three-phase distribution line would first involve the attachment of two new insulator brackets and insulators to the existing poles. Next, the two new conductors would be attached using similar stringing methodologies. For the underground portion of the distribution line, the new conductors would be pulled through the existing conduits and the sections then spliced together at the existing junction enclosures.

For the three-phase line, the same pull sites would be reused for each phase, and no new work areas would be required. To be able to easily re-use the pull sites, SPPCo would reseed each site after construction of the single-phase line, but they would not recontour the sites until after the installation of the three-phase line, so that no additional grading or ground disturbance is required during subsequent phases.

## **Underground Distribution Line**

Adjacent to the existing switchbacks, the line would be converted to an underground configuration. The first portion of the underground distribution line would consist of several plastic conduit pipes installed within a 2-foot wide trench, approximately 1,795-feet (0.34 miles) long, running straight up the face of the mountain to an existing access road serving a patented mining claim near the crest of the New Pass Range. The switchbacks may be temporarily reopened to allow for equipment access and material delivery.

The second portion of the underground distribution line would follow the existing access road, within a 2-foot wide trench, and would run in a south and easterly direction to an intersection with another existing access road, commonly referred to as the New Pass Peak Road. The New Pass Peak Road is the primary access road for the communications sites on New Pass Peak. The underground line would continue towards the communications sites within the road bed of the New Pass Peak Road. The second portion of the underground distribution line would measure 7,339-feet (1.39 miles) long. The total length of the underground distribution line would be approximately 9,187 feet (1.74 miles) and would typically be placed on the up-gradient side of the access roads.

Additional conduits would be installed at the time of construction to allow for emergency repair and future conversion to a three-phase system, if needed. Junction enclosures would be installed adjacent to the access roads. Junction enclosures (utility boxes measuring approximately 3-feet long by 3-feet wide by 3-feet high) would be installed through minor excavation in the adjacent road bed slope or in adjacent flat areas, depending upon the topography of the area. Junction enclosures located within the road bed slope would have a small block retaining wall to stabilize the slope. Junction enclosures would each occupy approximately 9 square feet of land (approximately .001 acres total) and would be located approximately 900-feet apart to allow for splicing of the conductors.

## **Access Roads**

The Proposed Action would include approximately 29,515 feet (5.59 miles) of permanent access roads on public lands, consisting of a lower access road serving the overhead segment and an upper access road with the underground segment buried within the roadbed. Approximately 948 feet (0.18 miles) of access road would be located on a private parcel (APN 003-971-03) near the top of the switchbacks. The total length of the permanent access roads would measure approximately 30,465-feet (5.77 miles) long.

The lower access road would generally be 8-feet wide and constructed as close as topographically possible to the proposed distribution line, from Alpine Road to the bottom of the existing switchbacks where the underground portion begins. Both the road and the proposed distribution line would be located within the 40-foot wide proposed ROW to the extent practicable. During construction, the lower road could measure up to 12-feet wide due to temporary activities (e.g. pull-outs or cut and fill work); the majority of the additional 4-feet of disturbance would be restored and seeded after construction when the additional width is no longer needed. As a result, the final access road would consist of an 8-foot wide driving surface. The alignment of the first 19,475 feet (3.69 miles) of the lower access road, which spans from Alpine Road along a ridgeline towards the bottom of the switchbacks is well-defined. As the terrain steepens near the existing switchbacks, therefore the alignment of the last 1,791 feet (0.33 miles) is less defined. This portion of the road would require more substantial cut and fill construction to safely build the road below a 20-percent grade. Soil erosion and drainage controls (e.g. culvert pipes, water bars,

wing ditches, etc.) would be installed as necessary. The total length of the lower access road that occurs on public lands would be approximately 21,278-feet (4.03 miles); the exact alignment would be determined during final project design.

The upper access road would be 8-feet wide and would consist of an improved section of road from the top of the switchbacks to the intersection with New Pass Peak Road, and along the New Pass Peak Road to the communications site complex. The existing switchbacks may be used temporarily for vehicular and equipment access to the trench required for installation of the underground portion of the distribution line. Also, approximately 948 feet (0.18 miles) of this portion of the underground distribution line would occur on a private parcel situated near the top of the switchbacks. Heavy equipment, such as a bulldozer, would be used to provide additional support to and tow a trenching machine, such as an excavator, in a straight line up and down the slope. The bulldozer would be staged near one of the corners at the top of the switchbacks along the upper access road. The staging areas for the bulldozer would temporarily disturb approximately 200 square feet; however, this disturbance would occur within the existing access road. All topsoil excavated during construction would be temporarily stockpiled next to the trench to be backfilled into the area of disturbance following construction activities. After construction is complete, the switchbacks would be reclaimed (i.e. recontoured and seeded) using a BLM-approved seed mix. The existing access road, from the top of the switchbacks to the intersection with the New Pass Peak Road and to the communication site complex, would measure 7,354-feet (1.74 miles). A portion of road between the switchbacks and the New Pass Peak Road would be improved by widening and grading the road surface as needed. The New Pass Peak Road to the communication site complex does not require improvement, although the road would be graded if road conditions are degraded before or during construction.

The total length of both the proposed lower and upper access roads that occur on public lands would be approximately 29,515-feet (5.59 miles), resulting in approximately 5.27 acres of permanent disturbance (See Table 2.1 below). The proposed access roads would facilitate construction, maintenance, and inspection needs for the distribution line. The switchbacks, if used, would not be used during operation of the distribution line and would not be kept open for vehicle traffic. Portions of the access roads which are outside the 40-foot width of the power line ROW would be mapped and would be submitted to the BLM for additional ROW authorization. If deemed necessary by BLM, access control gates would be installed at appropriate locations to prevent unauthorized vehicular travel on the western slopes of New Pass Peak. Existing access roads would be repaired or improved, as needed, to complete and maintain the project.

### **Right-of-Way Grant Request**

SPPCo would require a 29,515-foot (5.59-mile) long, 40-foot wide ROW along the length of the proposed distribution line. The temporary ROW request is described above in Section 2.1.1, *Temporary Project Features*. The final ROW would have a 27-acre footprint with the distribution line generally centered within the authorized ROW. The proposed access road would be immediately adjacent to the distribution line where topography allows. With the exception of the last portion of the lower road that is less-defined, the majority of the road would be located entirely within the requested ROW. SPPCo would obtain a private easement to site the distribution line on the 948 feet (0.18 miles) that traverses the private parcel.

## Operation and Maintenance

Once the distribution line is operational, SPPCo operations and maintenance personnel would conduct annual inspections by helicopter, all-terrain vehicles, or line trucks. The inspections would include visual review of the line along the existing access roads. Access roads would be maintained as needed and would consist of blading the road in advance of scheduled work to remove exposed rock, repair washouts or rockslides, and remove existing deep ruts to ensure the road is passable.

In addition, SPPCo personnel would access the line under emergency conditions. They would access the line via line trucks using existing access roads, the main proposed road, or by helicopter. If the main proposed road is not accessible, or if the road is not passable, additional equipment would be used to repair the road, in order to make it passable. If emergency repair work would occur outside the approved ROW width or would deviate from the established route, SPPCo would notify the BLM as soon as practicable for approval. SPPCo would typically not be required to notify the BLM of routine and emergency maintenance of the distribution line or roads within the approved ROW unless the terms and conditions of the grant require such notice.

### 2.1.3. Comparison of Permanent and Temporary Project Features

Table 2.1 summarizes the permanent and temporary disturbances associated with the Proposed Action. All permanent and temporary disturbances summarized in this table would occur on federal land managed by the BLM.

**Table 2.1. Proposed Action Disturbance Acreage Comparison**

Project Features	Number	Length Required (feet)	Area Required (square feet)	Permanent Disturbance (acres) <sup>1,2</sup>	Temporary Disturbance (acres) <sup>1,3</sup>
Distribution Structures (Poles) <sup>4</sup>	85	21,648	25	0.01	0.05
Lower Access Road (Alpine Road to bottom of switchbacks) <sup>5</sup>	1	21,278	170,224	3.91	5.86
Upper Access Road (top of switchbacks to top of New Pass Peak) <sup>6</sup>	1	7,339	58,712	1.35	2.02 <sup>7</sup>
Junction Enclosures	6	NA	9	0.001	0
Underground Trench (up the switchbacks)	1	1,795	3,590	0	0.08 <sup>8</sup>
Underground Trench (along the road to top of the peak)	1	7,339	14,478	0	0.34 <sup>9</sup>
Pull Sites	6	5,000	30,000	0	0.70
Staging Areas	2	NA	80,000	0	1.84
Total Disturbance on Public Lands:				5.27	10.89
Private Access Easement	1	948	7,584	0.17	0.26
Total Disturbance on Private Lands:				0.17	0.26

#### NOTES

1 – Disturbance acreage calculations are based on preliminary design plans and are subject to change based on final design and field conditions.

2 – Permanent disturbance would include long-term operational impacts over the duration of the project. This includes the project structures and access roads.

3 – Temporary disturbance would include short-term construction-related impacts. This includes the pull sites and staging areas that would be restored and returned to near natural conditions following construction.

4 – The distribution structures would permanently disturb 4 square feet; they would temporarily disturb 25 square feet.

5 – Lower access road refers to the new road from Alpine Road to the bottom of the existing switchbacks. This estimate is based on preliminary Geographic Information Systems (GIS) data provided by SPPCo. Maintenance of existing BLM roads (i.e., Alpine Road, New Pass Peak Road) would only involve the removal of ruts and large rocks; no road widening would occur.

6 – Upper access road refers to the new road from the end of the switchbacks to top of New Pass Peak. This estimate is based on preliminary GIS data provided by SPPCo. Maintenance of existing BLM roads (e.g., Alpine Road, New Pass Peak Road) would involve only the removal of ruts and large rocks; no road widening would occur.

7 – The permanent road would be 8 feet wide. Temporary disturbance of the road assumes an additional 4 feet (2 feet along each side) for a total disturbance area of 12 feet during construction; use of the 4-foot areas would be limited and re-vegetated after construction.

8 – The underground distribution line adjacent to the switchbacks would require a two-foot wide trench. An excavator that would remove the top soil and lay the distribution line straight up the slope; this would result in a temporary impact, as the surface would be re-vegetated and restored after construction.

9 – The underground distribution line along the road to the intersection at New Pass Peak Road would require a 2-foot wide trench along the road above the switchbacks to the top of the peak; this would be a temporary impact, as the surface would be re-vegetated and restored after construction.

NA - Not applicable.

## 2.1.4. Construction Phasing

Construction of the access roads, overhead distribution line and structures, and underground distribution line, and installation of conductors would occur in the following nine phases. The glossary section, located in the beginning of this EA, provides definitions to words commonly referenced when discussing electrical power distribution line projects.

### **Phase 1: Preconstruction Surveying and Staking**

SPPCo studied a variable width construction corridor for biological and cultural resources. As described previously, the survey corridor (also referred to as the construction corridor) is 300-foot wide for the overhead portion, 900-foot wide for the switchback area, and 100-foot wide for the underground portion placed within the existing access roads leading to New Pass Peak.

Prior to construction, the boundaries of the ROW would be staked, including marking the structure locations, access roads, and pull sites. Preconstruction surveys for sensitive biological resources would be initiated no more than 10 days and no sooner than seven days prior to construction. Any additional sensitive resources would also be flagged and fenced off, as appropriate.

### **Phase 2: Mobilization and Staging**

The crew would arrive at the project area approximately one week prior to the start of construction. During this time, construction crews would move equipment and construction materials to the two staging areas.

### **Phase 3: Access Road Construction**

In order to access the proposed structure locations, the existing upper access roads would be improved as needed. None of the existing upper access roads are anticipated to require widening; however, the upper roads may require minor grading to level the travel surface. As previously described, a new lower access road paralleling the proposed distribution line, would be constructed from Alpine Road to the switchbacks.

#### **Phase 4: ROW Preparation**

In order to establish sufficiently sized work areas for pull sites and staging areas, some vegetation clearing and grading would be conducted. At all pull site and staging area locations, vegetation removal would be minimized to the extent practicable. The pull sites would each measure approximately 100-feet long by 50-feet wide, resulting in approximately 0.7 acres of disturbance. These sites would be cleared of vegetation, if necessary and minimal grading, if any, would occur.

#### **Phase 5: Pole Installation**

One hole would be excavated for each new single pole structure using augers or other backhoe types of equipment. Each excavated hole would measure approximately 1.5-feet in diameter and be approximately 6.5-feet deep. Additionally, holes for guy wire anchors would be excavated at angle points to depths of approximately 6.5-feet. Blasting may be required in rocky areas where normal excavation methods are unable to meet project excavation specifications. Blasting is expected to occur in limited and localized areas.

Materials including structure materials, insulators, hardware, and guy wire anchors would be delivered to the project site via flatbed truck, and would be assembled on site using a crane or other heavy construction equipment. Crews would attach insulators and hardware to the wooden structures to form a complete structure.

After the structure is assembled it would be placed into the excavated hole using a boom truck (large truck with a crane). The structure bases would be buried in the ground, and native soil would be used to fill the holes (imported soil would be used if native material is unsuitable for compaction). At angle structures, guy wires and anchors would be installed to plumb the structures and support them during operation.

#### **Phase 6: Underground Installation**

For the underground portion of the distribution line, a single trench, averaging two-feet wide and a minimum of four feet deep, would be excavated along the edge of the upper access road, on the up gradient side of the access road, and straight down the hill slope to the end of the overhead segment near the switchbacks. The trench would make a slight deviation of approximately three feet off of the road to intercept junction enclosures. Junction enclosures located within the cut slope of the road would have a small block retaining wall to support the slope structures. Up to five conduits would be installed within the trench. A layer of bedding sand would cover the conduits to a depth of one foot, followed by native material, if suitable. The trench would then be compacted.

Six aboveground junction enclosures would be installed along the underground portion to intercept the conductors. Junction enclosures are used for pulling the conductors between sections and then splicing the conductors together. Potential locations would be at angle points where the underground line changes direction. New distribution circuits could begin at junction enclosure locations; however, an above ground switch would need to be installed. The distribution line would terminate at a pad-mounted transformer located adjacent to the communication site complex. The pad-mounted transformer would be slightly larger in size than the junction enclosure; it would be situated on an approximate 4 square foot concrete pad and measure approximately 3.5-feet high. Secondary voltage conductors would be installed from the transformer to the customer's (e.g., telecommunication companies) meter locations, as required.



### **Phase 7: Conductor Placement**

Six pull sites would be needed to install the conductors from the beginning of the overhead portion near the Alpine Road to the riser pole where the underground portion begins. The conductors would be lifted up to their final mounting location on new pole structures by a sock line and through travelers that are temporarily attached to pole structures between pulling sites. During installation, the sock line would guide the conductor through the travelers, keeping the conductors off the ground, which prevents damage to the conductor. The sock line would then place the conductor near the insulators for final attachment. The sock lines are also used to pull the conductor from junction enclosure to junction enclosure structure through the buried conduit in the underground portion. Figure 6 in Appendix A shows a graphical representation illustrating how the conductors would be installed via the sock line and travelers for the overhead portion of the Project.

Once the overhead conductors are in place, sags between the structures would be adjusted and tensioned to a pre-calculated level. Each conductor would be installed with a minimum ground clearance of 30.5 feet. Finally, the new conductor would be clipped into the end of each insulator on each structure, and the travelers would be removed. Other hardware would be installed as needed.

### **Phase 8: Site Cleanup and Demobilization**

Surplus materials, equipment, and construction debris would be removed at the completion of construction activities. All man-made construction debris would be removed and disposed of, as appropriate, at permitted landfill sites. Cleared vegetation would either be shredded and spread over the ROW as mulch and erosion control, or disposed of off-site as appropriate. Rocks removed during access road grading and pole foundation excavation would be redistributed over the ROW to match adjacent site conditions.

### **Phase 9: Reclamation**

Once construction has been completed, existing access roads would remain improved. Areas within the ROW disturbed by construction activities would be recontoured, decompacted, and seeded with a BLM-approved seed mixture. SPPCo would attempt to close or restrict vehicle access to areas that have been seeded until reclamation success criteria have been satisfied. SPPCo would also install a road access control gate at a natural pinch point along the lower access road to prevent OHV access to the top of the mountain.

## **2.1.5. Construction Crew, Equipment, and Schedule**

The following section describes the proposed construction crew, equipment, and schedule.

### **Construction Crew**

The construction crew would include up to 10 workers. Project construction would also require additional support personnel, including construction inspectors, surveyors, project managers, and environmental inspectors. The overhead portion of the distribution line would be installed by SPPCo crews out of Fallon, Nevada. These employees would travel to and from the job site each day. If needed, construction crews may also travel from Reno or Las Vegas, Nevada. During

construction, these employees may be temporarily based out of Austin or Fallon, Nevada. The underground portion of the distribution line would be installed by contractors that may be temporarily based out of Austin or Fallon, Nevada.

## Equipment

Table 2.2 lists the typical construction equipment and use required for a power distribution line project.

**Table 2.2. Typical Construction Equipment**

Equipment	Use
¾-ton and 1-ton pickup trucks	Transport construction personnel
2-ton flatbed trucks; flatbed boom truck	Haul and unload materials
Rigging truck	Haul tools and equipment
Mechanic truck	Service and repair equipment
Aerial bucket trucks	Access poles, string conductor, and other uses
Shop vans	Store tools
Bulldozer	Grade access roads and pole sites and reclamation
Road grader	Construct, maintain, and upgrade roads
Compactor	Construct access roads
Truck mounted digger or backhoe	Excavate
Small mobile cranes (12 tons)	Load and unload materials
Transport	Haul poles and equipment
Drill rig with augers	Excavate and install poles
Puller and tensioner	Pull conductor and wire
Cable reel trainers	Transport cable reels and feed cables into conduit
Semi tractor-trailers	Haul structures and equipment
Splice trailer	Store splicing supplies and air condition manholes
Take-up trailers	Install conductor
Air compressors	Operate air tools
Air tampers	Compact soil around structure foundations
Dump truck	Haul excavated materials and import backfill
Fuel and equipment fluid truck	Refuel and maintain vehicles
Water truck	Suppress dust and fire
Winch truck	Install and pull sock line and conductors into position
Rock wheel trencher	Excavate the underground trench

Source: SPPCo 2015.

## Schedule

SPPCo plans to begin construction by late spring 2016. The construction phase of the Proposed Action would take approximately 8 weeks to complete. It would involve the nine phases described above.

### 2.1.6. Project Environmental Protection Measures

The project applicant, SPPCo, is committed to implementing environmental protection measures listed and summarized in this section. These avoidance and mitigation measures (AMMs) are divided into 12 categories: General, Soil Disturbance, Blasting, Storm Water Management,

Noxious Weeds, Vegetation, Water Features, Wildlife and Sensitive Species, Cultural and Paleontological Resources, Hazardous Materials and Waste, Air Quality, and Fire Prevention and Response.

### **General Measures**

1. The limits of the temporary construction ROW would be marked with staking or flagging. All identified environmentally sensitive areas would be fenced for avoidance.
2. Prior to construction, all construction personnel would be instructed on the protection of sensitive biological, cultural, and paleontological resources that have the potential to occur within the project area.
3. All construction vehicle movement would be restricted to the 300-foot temporary construction corridor, pre-designated access roads, and public roads.
4. Smoking would only be permitted in paved or cleared areas. All cigarettes would be completely extinguished and disposed of in a trash receptacle.
5. Non-specular conductors (mechanically or chemically treated aluminum surfaces to reduce reflectivity) would be installed to reduce visual impacts.
6. Existing roads used during construction would be left in a condition equal to or better than their preconstruction condition, as directed by the BLM.

### **Soil Disturbance**

7. In areas where significant grading would be required, at least four inches of topsoil (where present) would be stockpiled and used for restoration work prior to reseeded.
8. Construction would be prohibited when the soil is too wet to adequately support construction equipment.

### **Blasting**

9. At a minimum, all explosive storage facilities would maintained in accordance with applicable regulations.
10. Potential rockslide/landslide areas would be avoided to the maximum extent practicable and a blasting geologist would be consulted prior to blasting in these areas.
11. Blasts would be designed to minimize ground vibrations that can cause slope instability and impacts to wells or springs.
12. Blasting within 500 feet of wells or springs would be avoided to the maximum extent practicable.
13. Prior to blasting activities, underground utilities would be located and marked to determine their location in relation to the ROW.
14. SPPCo and its contractor would perform pre- and post-blast inspections of existing structures that may sustain damage due to blasting operations.

15. SPPCo and its contractor would take proper precautions to avoid or minimize damaging buildings, houses, sheds, or other man-made buildings located within 150 feet of blasting operations. Precautions may include rippling the charge detonations further apart or reducing the amount of charge material that detonates simultaneously.

16. Blasting mats would be used to prevent or minimize the amount of fly-rock cast into the air following detonation.

17. A signaling system would be used to alert individuals of an impending blast. The signaling system would include the following components:

- A warning signal: 5 minutes prior to the blasting signal, a 1-minute series of long audible signals would be sounded at the blast site.
- A blasting signal: 1 minute prior to the blast, a series of short, audible signals would be sounded at the blast site.
- An all-clear signal: a prolonged, audible signal would be sounded at the blast site following the post-blast inspection of the blast area.

Signs explaining the protocol would be posted at the staging areas and other appropriate locations to inform construction personnel of the signaling protocol.

18. If any damage to structures occurs due to blasting operations, SPPCo and its contractor would initiate repairs as quickly as possible. In the event of damage to any water supply systems, SPPCo and its contractor would provide an alternative water source until the original water supply system is restored.

### **Noxious Weeds**

19. Prior to preconstruction activities, a qualified biologist would identify all visible noxious weeds present on the land to be included in the ROW grant and provide this information to the BLM. A determination would be made by the BLM of any noxious weeds that require flagging for treatment. SPPCo would treat the noxious weeds as required by the BLM.

20. Gravel or fill material would be sourced from a supplier or borrow pit that does not have a noxious weed population, as determined by a qualified biologist.

21. All off-road equipment would be cleaned (power or high-pressure cleaning) of all mud, dirt, and plant parts prior to initially moving equipment onto public land. Equipment would be cleaned again at an appropriate site if it leaves the project site prior to re-entry.

22. Disturbances to areas infested with noxious weeds would be avoided to the extent possible.

23. Equipment or vehicles used in known areas infested with noxious weeds would be thoroughly cleaned before they are moved to a new location.

24. During the fall immediately following construction completion, disturbed areas would be reseeded with an appropriate mix approved by the BLM to establish ground cover.

### **Vegetation**

25. Wherever practicable, vegetation would be left in place. Where vegetation must be removed, it would be cut at ground level to preserve the root structure and allow for potential resprouting.

26. All temporary construction areas, including pull sites and staging areas that have been disturbed, would be recontoured and restored as required by the BLM. The method of restoration typically would consist of installing cross drains for erosion control, placing water bars in the road, and reseeded with a seeding mix approved by the BLM, to the extent practicable. Seed would be certified as weed-free by a qualified biologist.

### **Water Features**

27. Wherever practicable construction vehicles and equipment staging or storage and construction activities would be located at least 100 feet away from any streams, wetlands, and other water features.

### **Wildlife and Sensitive Species**

28. SPPCo would bury the portion of the distribution line underground that crosses identified Greater Sage Grouse Priority Habitat.

29. Prior to construction (inclusive of ROW clearing and access road construction), biological surveys of the ROW and the access roads would be conducted by a qualified biologist contracted by SPPCo who is familiar with the biology and species likely to be encountered in the area. Potential habitat for a listed species identified during the preconstruction survey would be fenced for avoidance. If avoidance is infeasible, consultation with appropriate jurisdictional agencies would be conducted prior to work in the area(s). Additionally, if land clearing activities are conducted in the avian breeding season (March 1 to August 31), nesting bird surveys would be conducted to identify nests and evidence of breeding birds.

30. Excavations left open overnight would be covered or fenced to prevent livestock or wildlife from falling in. All covers would be secured in place and strong enough to prevent livestock or wildlife from falling in.

31. If a sensitive plant or animal species is identified during construction, work near the sensitive species would be halted, and a qualified biologist familiar with the habitat and species likely to be encountered in the project area would be consulted to determine an appropriate buffer and other protective measures. The appropriate resource agencies would be notified of the discovery within 24 hours. If avoidance is infeasible, consultation with the jurisdictional resource agency would be conducted prior to continuing work in the immediate area of the species. Any federal- or state-listed species discovered on public land would also be reported to the BLM.

32. Structures would be constructed to conform to those practices described in the Suggested Practices for Raptor Protection on Power Lines Manual developed by the Edison Electric Institute.

### **Cultural and Paleontological Resources**

33. An intensive cultural resource inventory survey would be conducted prior to construction. Unevaluated cultural sites would be evaluated to determine their eligibility for inclusion on the National Register of Historic Places (NRHP). Wherever possible, SPPCo would avoid cultural sites identified as eligible. Where avoidance is not practicable, a treatment plan would be developed through consultation between the BLM, SHPO, applicable Tribes, and interested parties.

34. Prior to construction, SPPCo and its contractors would train workers and individuals involved with the project regarding the potential to encounter historic or prehistoric sites and objects, proper procedures in the event that cultural items or human remains are encountered, prohibitions on artifact collection, and respect for Native American religious concerns. As part of this training, all construction personnel would be instructed to inspect for paleontological and cultural objects when excavating or conducting other ground-disturbing activities.

35. If previously undocumented cultural resources are found, work would be halted immediately within a minimum distance of 300 feet from the discovery, and a professional archaeologist (approved by the BLM) would be mobilized to the site to evaluate the find. Any potential resources would not be handled or moved. The professional archaeologist would then determine whether the find needs to be evaluated by a paleontologist or Native American representative. The appropriate specialist(s) would then make a determination of the significance of the find and the steps to be followed before proceeding with the activity. Any cultural and/or paleontological resource discovered during construction on public or federal land would be reported immediately to the BLM. Work would not recommence until the BLM issues a notice to proceed. The BLM would notify and consult with SHPO and appropriate Tribes on eligibility and suitable treatment options. If significant resources are discovered, they would be recovered, transported, and stored at an approved curation facility that meets the standards specified in 36 CFR Part 79.

36. If human remains are encountered during project construction, all work within 300 feet of the remains would cease, and the remains would be protected. If the remains are on land managed by the BLM, BLM representatives would be immediately notified. If the remains are Native American, the BLM would follow the procedures set forth in 43 CFR Part 10, Native American Graves Protection and Repatriation Regulations. Native American human remains discovered on state or private lands would be treated under the provisions of the Protection of Indian Burial Sites section of the Nevada Revised Statutes (NRS) in Chapter 383. The Nevada SHPO would consult with the Nevada Indian Commission and notify the appropriate Native American tribe. Procedures for inadvertent discovery are listed under NRS 383.170.

### **Hazardous Materials and Waste**

37. 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 or absorbent materials until repairs can be made.

38. All hazardous waste materials would be properly labeled in accordance with 40 CFR Part 262. A list of hazardous materials expected to be used during construction of the project is presented in Table 2.3.

**Table 2.3. Hazardous Materials Proposed for Project Use**

2-Cycle Oil	Lubricating Grease
ABC Fire Extinguisher	Mastic Coating
Acetylene Gas	Methyl Alcohol
Air Tool Oil	North Wasp and Hornet Spray (1,1,1-Trichloro-ethane)
Antifreeze	Oxygen
Automatic Transmission Fluid	Paint
Battery Acid	Paint Thinner
Bee Bop Insect Killer	Petroleum Products
Canned Spray Paint	Prestone II Antifreeze

Chain Lubricant (Methylene Chloride)	Puncture Seal Tire Inflator
Connector Grease	Safety Fuses
Contact Cleaner 2000	Safety Solvent
Eye Glass Cleaner (Isopropyl Alcohol)	Starter Fluid
Gas Treatment	Wagner Brake Fluid
Gasoline	WD-40
Insulating Oil	Diesel Fuel

Source: SPPCo 2015.

39. Hazardous material storage, equipment refueling, and equipment repair would be conducted at least 100 feet away, or as required by applicable regulations, from streams or other water features. SPPCo staff or an approved contractor would ensure all hazardous materials are stored in approved containers generally stored within the line trucks or ancillary equipment and removed and safely and properly disposed after use, as applicable, according to state and federal regulations.

40. Spilled material 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.

41. All sanitary wastes would be collected in portable, self-contained toilets at all construction staging areas and other construction operation areas and managed in accordance with local requirements.

### **Air Quality**

42. Driving speeds would be limited to 35 miles per hour on unpaved roads and on the ROW. A water truck would also be used to apply water to the access roads to control dust.

43. During construction, all areas subject to ground disturbance would be watered as needed to control dust.

44. Asphalt roads would be swept if visible soil material is tracked on it by construction vehicles.

45. Excavation and grading activities would be suspended when winds (instantaneous gusts) visible dust creates a health hazard to neighboring property owners and/or impacts to vehicular traffic.

### **Fire Prevention and Response**

46. SPPCo would designate a Fire Marshal (SPPCo Fire Marshal), who would coordinate with a Fire Marshal to be designated by the prime contractor (Contractor Fire Marshal) and the BLM's fire management representative, as necessary.

47. The Contractor Fire Marshal would be responsible for the following tasks:

- Conducting regular inspections of tools, equipment, and first aid kits for completeness
- Conducting regular inspections of storage areas and practices for handling flammable fuels to confirm compliance with applicable laws and regulations

- Posting smoking and fire rules at centrally visible locations on site
- Coordinating initial response to contractor-caused fires within the ROW
- Conducting fire inspections along the ROW
- Ensuring that all construction workers and subcontractors are aware of all fire protection measures
- Remaining on duty and on site when construction activities are in progress and during any additional periods when fire safety is an issue, or designating another individual to serve in this capacity when absent
- Reporting all wildfires in accordance with the notification procedures described below.
- Initiating and implementing fire suppression activities until relieved by agency or local firefighting services in the event of a project-related fire. Project fire suppression personnel and equipment, including water tenders, would be dispatched within 15 minutes from the time that a fire is reported
- Coordinating with the SPPCo Project Manager regarding current fire potential conditions and fire safety warnings from the BLM and communicating these to the contractor's crews

48. The SPPCo Construction Foreman or Contractor Fire Marshal would immediately notify firefighting services of any fires on site. A list of emergency fire contacts for the project area is presented in Table 2.4.

**Table 2.4. Emergency Fire Contacts**

Department	Phone Number
General Contact	911
Kingston Volunteer Fire Department	(775) 964-1063
Sierra Front Interagency Dispatch Center	(775) 883-5995
Carson City Field Office (Fire Management Office)	(775) 885-6103

Source: SPPCo 2015.

49. Contractors would be notified to stop or reduce construction activities that pose a significant fire hazard until appropriate safeguards are taken.

50. If an accidental fire occurs during construction, immediate steps to extinguish the fire (if it is manageable and safe to do so) would be taken using available fire suppression equipment and techniques. Fire suppression activities would be initiated by SPPCo and its contractor until relieved by agency or local firefighting services.

51. Smoking would only be permitted in designated cleared areas and would be prohibited while walking or working in areas with vegetation or while operating equipment. In areas where smoking is permitted, all burning tobacco and matches would be completely extinguished and discarded in ashtrays, not on the ground.

52. Smoking and fire rules would be posted at construction staging areas, helicopter fly yards, and key construction sites during the fire season.



53. Fire suppression equipment would be present in areas where construction tools or equipment have the potential to spark a fire.

54. Extra precautions would be taken when fire danger is considered to be high.

55. All field personnel would be instructed regarding emergency fire response. The contractors would receive training on the following:

- Initiating Fire Suppression
- Fire event reporting requirements
- Methods to determine if a fire is manageable
- Fire control measures to be implemented by field crews on-site
- When the worksite should be evacuated
- How to respond to wildfires in the vicinity
- How to maintain knowledge of and plans for evacuation routes

56. Flammable material including dead vegetation, dry grasses, and snags (fallen or standing dead trees), would be cleared a minimum of 10 feet from areas of equipment operation that may generate sparks or flames.

57. No open burning, campfires, or barbeques would be allowed along the ROW, at construction staging areas, helicopter fly yards and substations, on access roads, or in any other project-related construction areas.

58. All welding or cutting of power line structures or their component parts would be approved by the SPPCo Construction Foreman. Approved welding or cutting activities would only be performed in areas cleared of vegetation a minimum of 10 feet around the area. Welding or cutting activities would cease one hour before all fire response personnel leave a construction area to reduce the possibility of welding activities smoldering and starting a fire. Welder vehicles would be equipped with fire suppression equipment.

59. All internal combustion engines, both stationary and mobile, would be equipped with approved spark arresters that have been maintained in good working condition. Light trucks and cars with factory-installed (type) mufflers in good condition may be used on roads cleared of all vegetation with no additional equipment required. Vehicles equipped with catalytic converters are potential fire hazards and would be parked on cleared areas only.

60. The use of torches, fuses, highway flares, or other warning devices with open flames would be prohibited. SPPCo and its contractors would only use electric or battery-operated warning devices on site.

61. Equipment parking areas, small stationary engine sites, and gas and oil storage areas would be cleared of all extraneous flammable materials. "NO SMOKING" signs would be posted in these areas at all times.

62. Fuel tanks would be grounded.

63. SPPCo and the contractors would provide continuous access to roads for emergency vehicles during construction.

64. All motorized construction vehicles and equipment would be equipped with the following fire protection items:

- One long handled round point shovel
- One ax or Pulaski fire tool
- One 5-pound ABC Dry Chemical Fire Extinguisher
- One 5-gallon water backpack (or other approved container) full of water or other extinguishing solution
- Hard hat, work gloves, and eye protection

65. Project construction worksites would include the following equipment:

- Power saws, if required for construction, equipped with an approved spark arrester and accompanied by one 5-pound ABC Dry Chemical Fire Extinguisher and a long-handled, round-point shovel when used away from a vehicle.
- Fuel service trucks with one 35-pound capacity fire extinguisher charged with the necessary chemicals to control electrical and fuel fires.
- At least two long-handled, round-point shovels and two 5-pound ABC Dry Chemical Fire Extinguishers at wood cutting, welding, or other construction work sites that have a high risk of starting fires.
- At least one radio and/or cellular telephone to contact fire suppression agencies or the project management team.
- Backpumps filled with water (two at each wood-cutting site, one at each welding site, and two at each tower installation or construction site, or any activity site at risk of igniting fires).

66. During periods of increased fire danger, a fire suppression vehicle would be available in the construction area or stationed near high-risk construction work sites and would be equipped with the following items:

- One water tank with a minimum capacity of 500 gallons
- 250 feet of 0.75-inch heavy-duty rubber hosing
- One pump with a discharge capacity of at least 20 gallons per minute. (The pump would have fuel capacity to operate for at least a 2-hour period.)

- One tool cache (for fire use only) containing at a minimum:
  - Two long handled round point shovels
  - Two axes or Pulaski fire tools
  - One chainsaw of 3.5 (or more) horsepower with a cutting bar of at least 20 inches in length.

67. If a fire is unmanageable, field crews would evacuate and call “911” or the district dispatch for the area (see Table 2.4). All fires would be reported to the jurisdictional fire agency, regardless of size and actions taken.

### 2.1.7. Required Permits, Approvals, and Authorizations

Table 2.5 lists the permits, approvals, and authorizations that must be obtained prior to the construction and operation of the Proposed Action.

**Table 2.5. Required Permits and Authorizations**

Agency	Permit/Authorization	Action Requiring Approval
<b>Federal</b>		
BLM	ROW grant	Obtaining ROW on public lands
	Compliance with Section 106 of the NHPA	Any activity that may affect prehistoric or historic resources eligible for the National Register of Historic Places (NRHP) and issuance of Special Use Authorization
<b>State</b>		
NDEP Bureau of Air Pollution Control	Air Quality Surface Disturbance Permit	Surface disturbance of more than 5 acres

Source: SPPCo 2015.

## 2.2. Alternatives to the Proposed Action

NEPA requires the consideration of alternatives other than the Proposed Action. Specifically, it states that agencies must “study, develop, and describe appropriate alternatives to recommend courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources.” (42 USC 4332).

### No Action Alternative

Under the no action alternative, the Proposed Action would not be approved on BLM lands and the ROW would not be issued. There would be no change in the existing environmental setting at or within the project area. Propane and solar generation would continue to be in use at the communication site complex.

## 2.3. Alternatives Considered but not Analyzed in Detail

Two other alternatives were considered within the New Pass Peak project area, but were eliminated from further study due to construction constraints related to length of the alternative alignments, potential effects to perennial streams and drainages, and the presence of sensitive wildlife habitat. Both of these alternatives are illustrated in Figure 7 (Appendix A).

### Alternative 1 – New Pass Peak Road Alignment

Originally, this alternative was proposed as the preferred alignment, before SPPCo evaluated the feasibility of the Proposed Action. Under this alternative the ROW would parallel an existing 230 kV transmission line and then follow the New Pass Peak Road to the communication sites at New Pass Peak. This alternative includes an overhead component and an underground component within GRSG habitat known as Other Habitat Management Area (OHMA).

The overhead distribution line would start north of US Highway 50, along an existing improved road, locally known as the New Pass Mine Road or the Pass Miner Road, that serves mines near the south end of the New Pass Range. Along the New Pass Mine Road, there is a communication site owned by the Nevada Department of Information Technology that is served by an existing SPPCo 24.9 kV distribution line; the New Pass Peak Road Alignment would tie into this existing distribution line. The overhead portion of the distribution line would parallel an existing 230 kV transmission line (Ft. Churchill to Austin 230 kV transmission line (i.e. 2309 Line)), traversing several drainages and OHMA before connecting to New Pass Peak Road approximately 2.5 miles to the east. The overhead portion of the distribution line would then follow New Pass Peak Road for approximately 11.7 miles in a northerly direction, until changing to an underground configuration from near Gilbert Spring to the communication sites at New Pass Peak. The underground distribution line was proposed to minimize impacts within OHMA located near the top of New Pass Peak.

This alternative was considered but eliminated for several reasons. The lengths of both the overhead and underground segments would be nearly twice as long as the Proposed Action and the underground route would have crossed and paralleled several perennial drainages. Siting underground utilities near or through perennial drainages can cause soil erosion above the utility trenches, and as a result, expose the conduits containing the conductors. These environmental impacts can result in utility hazards, maintenance issues, and possibly power outages. While the construction of an underground distribution line across perennial drainages is feasible, it could also result in constructability issues and more intense impacts to nearby GRSG habitat. Finally, the overhead portion would cross a larger segment of OHMA compared to the Proposed Action. This would result in greater impacts to GRSG habitat than those expected under the Proposed Action in the form of additional vegetation removal and disturbance, increased human presence and vehicular traffic within this habitat, and increased reduction in habitat connectivity. As a result, this alternative was considered, but eliminated.

### Alternative 2 – Existing Access Road Alignment

Under this alternative the ROW would follow an existing dead end road up the west side of the New Pass Range and then traversing the slopes of the mountain to the communication sites. This alternative would intersect the Proposed Action alignment just below the switchbacks and then

follow the same route to the communication sites. The route was proposed because it would follow an existing road for a portion of the route and would cross an area of the alluvial fan at the base of the New Pass Range that is less steep than the Proposed Action alignment.

The ROW would start approximately one mile north of the beginning of the Proposed Action alignment and north of the agricultural fields, located to the west of Alpine Road. The ROW would roughly follow an existing primitive road that dead ends approximately halfway up the slope of the New Pass Range to the north of New Pass Peak; the ROW would then turn south for approximately 1.5 miles until it reaches the Proposed Action alignment, near the bottom of the existing switchbacks. The total length of this alternative would measure approximately 5.2 miles, which would require construction of approximately 1.1 miles of additional access roads compared to the Proposed Action alignment.

This alternative was primarily proposed to avoid establishing a new access road up the alluvial fan below the western slope of New Pass Peak. However, this alternative is longer, and would require the addition of multiple angle pole structures and the construction of a road to the riser pole, which would have resulted in greater disturbance compared to an alignment with a straight-line approach. For example, a longer road over steeper terrain that traverses several hill slopes would likely result in greater soil erosion and water quality effects; it would also remove more existing vegetation and impact more potential wildlife habitat due to the need to install additional and larger distribution structures. As a result, this alternative was considered, but eliminated because the alignment was longer and its construction could result in greater environmental impacts.

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# **Chapter 3. Affected Environment and Environmental Consequences**

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This chapter identifies resources in the human environment which may be affected by the Proposed Action or no action alternative. The current condition of the resources in the area where effects may occur and the potential environmental consequences of the Proposed Action are described for resources brought forward for detailed analysis.

## General Setting

The general project area is located approximately 70 miles east-northeast of Fallon, Nevada, approximately six and a half miles north of US Highway 50 in the Edwards Creek Valley, and along the New Pass Range in Churchill and Lander Counties, Nevada.

The Edwards Creek Valley is surrounded by the New Pass Range to the east, and the Clan Alpine Mountains to the north and west. Alluvial fans slope gently from the bases of the moderately steep mountains of the New Pass Range toward the interior of the valley where a dry lake bed is located. Vegetation consists primarily of low-growing, sparse, and regularly spaced shrubs (e.g., sagebrush and greasewood) and bunch grasses in the valley floors. Trees (e.g., Utah juniper and singleleaf pinyon pines) are located on the upper elevations in the New Pass Range within the general project area, but are relatively sparse due to two historic forest wildfires in 1999 and 2012 (BLM 2013).

The elevation of the project area ranges from approximately 5,200 feet above mean sea level (AMSL) at the valley floor to approximately 9,200 feet AMSL at the top of New Pass Peak. The project area is located in a high mountain desert where the climate can vary significantly between the summer and winter months. Rainfall in Churchill County varies from four to seven inches annually and temperatures range from lows between 30 and 40 degrees Fahrenheit during winter months to highs between 80 and 90 degrees Fahrenheit in the summer (Western Regional Climate Center 2015).

## 3.1. Supplemental Authorities

BLM Nevada IM NV-2009-030 (Supplemental Authorities to Consider in National Environmental Policy Act (NEPA) Documents) provides guidance to BLM District and Field Offices on how supplemental authorities outlined in Appendix 1 of the BLM NEPA Handbook (H-1790-1) should be considered in NEPA documents. Attachment 1 to IM NV-2009-030 provides the Supplemental Authorities list as a screening tool for review and documentation of relevant authorities (laws, regulations, executive orders, directives, etc.) in NEPA documents.

The Supplemental Authorities list is organized by elements of the human environment; the elements and corresponding legal authorities are collectively referred to as “Supplemental Authorities.” The list expands on Appendix 1 of H-1790-1 to include other legal authorities, with requirements specified by statute or executive order, which must be considered in all Nevada BLM EA documents. The table below lists the Supplemental Authorities, their status in relation to the Proposed Action, and rationale for whether the topic will be carried forward for detailed analysis. Supplemental Authorities determined to not be present or present but not affected by the Proposed Action need not be carried forward or discussed further. Supplemental Authorities determined to be present and may be affected may be carried forward in the document if there are issues which necessitate a detailed analysis.

**Table 3.1. Supplemental Authorities**

Resource	Present Yes/No	Affected Yes/No	Rationale
Air Quality	Yes	No	Air quality within the project area is considered in attainment. Implementation of the Proposed Action would result in short-term impacts to air quality in the form of vehicle emissions and fugitive dust; however none of the impacts would exceed air quality standards. Air Quality will not be further analyzed in this EA.
Areas of Critical Environmental Concern	No	No	There are no Areas of Critical Environmental Concern (ACEC) present within the project area.
Cultural Resources	Yes	No	According to the <i>2014 Final Class III Cultural Resources Inventory of 215 Acres for a NV Energy Distribution Line from New Pass Peak to Edwards Creek Valley in Churchill and Lander Counties, Nevada</i> (Report No. BLM3-2694(P)), there were no NRHP-eligible cultural resources present within the project area. According to the State Protocol Agreement between the BLM and the Nevada State Historic Preservation Office (SHPO) for Implementing the NHPA (2012), the determination of no adverse effect does not require SHPO concurrence. Cultural resources will not be further analyzed in this EA.
Environmental Justice	No	No	The Proposed Action is located in a rural area and would not disproportionately affect low-income or minority populations, as described in EO 12898, <i>Environmental Justice in Minority Populations and Low-Income Populations</i> . As a result, there are no environmental justice concerns. Environmental Justice will not be further analyzed in this EA.
Farm Lands (prime or unique)	No	No	There are no prime or unique farmlands present within the project area.
Floodplains	No	No	There are no mapped floodplains present within the project area, based on EO 11988, <i>Floodplain Management</i> .
Invasive and Nonnative Species	Yes	No	There were no noxious weed species listed on the 2012 Noxious Weed List observed within the project area (Enviroscientists 2014).
Migratory Birds	Yes	Yes	Migratory birds could occur within the project area; potential effects to this resource are discussed in Section 3.5.
Native American Religious Concerns	Yes	No	Based on consultation with regional Native American Tribes, interagency coordination, and according to the <i>2014 Final Class III Cultural Resources Inventory of 215 Acres for a NV Energy Distribution Line from New Pass Peak to Edwards Creek Valley in Churchill and Lander Counties, Nevada</i> (Report No. BLM3-2694(P)), there were no NHRP-eligible cultural resources present within the project area, including historic properties of sacred or religious significance. As a result, the BLM Stillwater Field Office does not require concurrence from the Nevada SHPO. Native American Religious Concerns will not be further analyzed in this EA.
Threatened or Endangered Species (animals)	Yes	No	There are no potentially threatened or endangered animal species present within the project area.
Threatened or Endangered Species (plants)	No	No	There are no potentially threatened or endangered plant species present within the project area.

Resource	Present Yes/No	Affected Yes/No	Rationale
Wastes, Hazardous or Solid	No	No	There is no solid or hazardous waste present within the project area and no substantial wastes would be generated during construction and operation of the Proposed Action.
Water Quality (Surface/Ground)	Yes	No	There are perennial streams and drainages present within the project area, but implementation of the Proposed Action would not result in long-term effects because the proposed alternative does not directly traverse the perennial streams and drainages in the area. Further, the Proposed Action was sited away from such streams and drainages to avoid surface and ground water quality impacts. Water Quality will not be further analyzed in this EA.
Wetlands/Riparian Zones	No	No	There are no potential wetlands/riparian zones, or waters of the United States present within the project area.
Wild and Scenic Rivers	No	No	There are no wild and scenic rivers present within the project area.
Wilderness/WSA	No	No	There are no designated Wilderness Areas or Wilderness Study Areas (WSA) within the project area.

### 3.2. Resources or Uses Other Than Supplemental Authorities

The following resources or uses, which are not Supplemental Authorities outlined in Attachment 1 of IM NV-2009-030, are evaluated by the SFO ID team in all NEPA documents. Resources or uses determined to not be present or are present, but not affected by the Proposed Action need not be carried forward or discussed further. Resource or uses determined to be present and may be affected may be carried forward in the document if there are issues which necessitate a detailed analysis.

**Table 3.2. Resources or Uses other than Supplemental Authorities**

Resource or Issue	Present Yes/No	Affected Yes/No	Rationale
BLM Special Status Animal Species	Yes	Yes	BLM sensitive animal species, including GRSG, are known to occur within the project area; potential effects to BLM Special Status Animal Species are discussed in Section 3.7.
BLM Special Status Plant Species	No	No	Based on surveys conducted for the Proposed Action (July 2014), there are no BLM sensitive plant species present within the project area (Enviroscientists 2014). BLM Special Status Plant Species will not be further analyzed in this EA.
Fire Management/Vegetation	Yes	No	The majority of the proposed ROW burned in an unnamed 1999 wildfire and the 2012 Gilbert wildfire. The Proposed Action does not affect existing vegetation or fire management practices. Fire Management/Vegetation will not be further analyzed in this EA.
Forest Resources	Yes	Yes	Forest resources are located within the project area; potential effects to this resource are discussed in Section 3.8.
General Wildlife	Yes	Yes	General wildlife resources are located within the project area; potential effects to this resource are discussed in Section 3.4.

Resource or Issue	Present Yes/No	Affected Yes/No	Rationale
Land Use Authorization	Yes	Yes	The land uses associated with the Proposed Action would be consistent with the CCD CRMP. However, there are existing land use authorizations in the area, including the authorizations to access and use the communications site at the top of New Pass Peak. These land use authorizations would be affected by the issuance of the requested temporary and permanent ROW. However, issuance of the ROW is expected to improve the reliability of the electrical power supply to the communication site, resulting in a beneficial effect on the overall operational efficiency of the communications site. Therefore, Land Use Authorizations will not be further analyzed in this EA.
Lands with Wilderness Characteristics	No	No	There are no lands with wilderness characteristics present within the project area.
Livestock Grazing	Yes	No	While livestock grazing is present within the project area, the Proposed Action would not affect the amount of forage needed to feed grazing livestock (i.e. Animal Unit Month), nor would it disrupt grazing rotations. These resources will not be further analyzed in this EA.
Minerals	No	No	<p>There are known minerals present within the project area. According to the Churchill County Assessor and BLM LR2000 Public Records Reporting Application Tool, there are two mining claims within the general vicinity of the project area. There is a patented mining claim located on 20.5 acres in the NE ¼ Section 28 of T. 21 N., R. 40 E., within APN 003-971-03 owned by the Lombardo Turquoise Mill &amp; Mine (also known as the Shoshone Mine). The patented mining claim is located near the top of the switchbacks, near the border with Lander County. Also, according to the BLM LR2000 Public Reports Reporting Application Tool, there is an active unpatented mining claim also located within the NE ¼ Section 28 of T. 21 N., R. 40 E., near the existing switchbacks (BLM 2015a).</p> <p>The Proposed Action is not expected to affect either of the two mining claims. While the upper access road would traverse the mining claims, neither the road, nor the distribution structures would limit or prohibit access to the mining areas. Further, there is little potential for future conflict between the Proposed Action and probable mining claim activities, which may be proposed in the project vicinity at the same time. Also, the mineral claimant would need to provide notice to the BLM prior to proceeding with operations on a leased or claimed public land. Additionally, if mining operations are expected to result in a potential conflict, the BLM and Churchill County would assist the mining claimants and project applicant during negotiations to reduce any conflicts. Therefore, mineral resources will not be further analyzed in this EA.</p>

Resource or Issue	Present Yes/No	Affected Yes/No	Rationale
Paleontological	No	No	Paleontological resources are known to occur throughout the CCD SFO planning area. However, there were no known paleontological resources present within the project area. The nearest known resources occur within a 2,340-acre area identified as the Ruhenstroth Paleontological Area located south of Fish Springs Road in the southwestern portion of the Pine Nut Mountains of Douglas County (BLM 2014b). This area is located approximately 100 miles to the southwest of the project area. Therefore, these resources will not be further analyzed in this EA.
Recreation	Yes	No	Recreation in this area is dispersed and given the project's remote location and short construction timeframes, there would be no impacts to recreational opportunities in the area. Recreation will not be further analyzed in this EA.
Socioeconomics	Yes	No	The Proposed Action would result in a short-term increase in temporary construction work; however, it would not increase the permanent population or result in long-term changes to socioeconomic characteristics in the project area. Socioeconomics will not be further analyzed in this EA.
Soils	Yes	No	Soils within the project area would not be affected by implementation of the Proposed Action. The soil excavation for transmission pole installation, road construction, and temporary staging and pulling sites is expected to impact a small 5.27 portion of the 201.2-acre temporary construction corridor project area. Soils will not be further analyzed in this EA.
Travel Management	Yes	No	While there are travel routes within the project area and the Proposed Action involves the construction of new access roads, because these travel routes are not heavily used by the public and recreationists, the Proposed Action would not impede vehicle travel on existing routes. Travel Management will not be further analyzed in this EA.
Vegetation	Yes	Yes	Based on surveys conducted for the Proposed Action (July 2014), there are no BLM sensitive plant species present within the project area. However other plant species and general vegetation types are located within the project area; potential effects to this resource are discussed in Section 3.6.
Visual Resources	Yes	Yes	Visual resources are located within the project area; potential effects to this resource are discussed in Section 3.9.
Wild Horses and Burros	Yes	No	The New Pass/Ravenswood Herd Management Area (HMA) is located in the Battle Mountain D approximately 35 miles northwest of Austin and near the project area. Due to the distance of the HMA from the project area, the Proposed Action would not affect this resource. Wild Horses and Burros will not be further analyzed in this EA.

Resource or Issue	Present Yes/No	Affected Yes/No	Rationale
Global Climate Change	Yes	No	While the scientific community has determined that there is a correlation between human activities and global climate change, no readily available methods currently exist to quantify to what extent these activities (e.g., fossil fuel consumption) ultimately contribute to climate change. Global climate change will not be further analyzed in this EA.
Greenhouse Gas Emissions	Yes	No	While the operation of the Proposed Action would result in indirect GHG emissions, the additional emissions would not contribute to a substantial increase of such emissions in the project area. GHG emissions will not be further analyzed in this EA.

### 3.3. Resources Present and Brought Forward For Analysis

The following resources are present in the project area and may be affected by implementation of the Proposed Action.

- General Wildlife Species
- Migratory Birds
- Vegetation
- Special Status Species (includes Threatened and Endangered Species and BLM Sensitive Animal Species)
- Forest Resources
- Visual Resources

The affected environment for the Proposed Action and the no action alternative would be the same. The term “project area” refers to the area through which the Proposed Action’s alignment would cross or occupy (see Figure 1 in Appendix A).

### 3.4. General Wildlife Species

#### Affected Environment

Wildlife in the project area is characteristic of that in the Great Basin region. As discussed in the vegetation resources section (Section 3.6), the project area consists of predominantly vegetation that has been burned as a result of two recent wildfires that occurred in 1999 and 2012. The project area also consists of a variety of grassland and sagebrush communities. In addition to the species discussed in Section 3.7, consultation with NDOW identified year-round occupied habitat within the project area for mule deer (*Odocoileus hemionus*) and pronghorn antelope (*Antilocapra americana*). Pronghorn antelope occupied habitat exists within the entire project area, while mule deer tend to utilize the areas that are within the mountainous portions of the project area. There is no known occupied habitat for elk (*Cervus canadensis*) or desert bighorn sheep (*Ovis canadensis nelsoni*) in the vicinity of the project area (Enviroscientists 2014). However, the higher elevations

of the project area are considered potential desert bighorn sheep habitat. Occupied habitat for the desert bighorn sheep also exists approximately 10.5 miles to the south of the project area in the Desatoya Mountains south of US Highway 50 (Enviroscientists 2014).

Surveys for general wildlife were conducted by biologists from July 28, 2014 through July 31, 2014 in accordance with the 2014 Draft Statewide Wildlife Survey Protocols for BLM Nevada (Appendix C). During the surveys, the following two reptiles were observed in the project area: the long-nosed leopard lizard (*Gambelia wislizenii*) and the western fence lizard (*Sceloporus occidentalis*). The following six mammals were identified within the project area: American badger (*Taxidea taxus*); black-tailed jackrabbit (*Lepus californicus*); chipmunk (*Neotamias* spp.); ground squirrel (*Spermophilus* spp.); pronghorn antelope; and white-tailed antelope ground squirrel (*Ammospermophilus leucurus*). A herd of approximately 28 pronghorn antelope was present in the lower elevations of the Recently Burned and Invasive Annual and Biennial Forbland areas. Ungulate scat that was likely mule deer was also observed in the higher elevation areas of the project area. No sign of desert bighorn sheep was observed in the project area, and limiting factors such as escape terrain and lack of water sources within and immediately adjacent to the project area may explain the lack of detection of bighorn sheep. In addition, there was no sign of elk or feral horses in the project area. Fifteen bird species were noted during the site visit, and those species and potential project impacts are discussed in Section 3.5 (Enviroscientists 2014).

## Environmental Consequences

This section describes the environmental consequences for general wildlife that could occur if the Proposed Action is constructed in the project area. This section also lists AMMs that would be implemented to avoid or reduce potential wildlife effects.

### Proposed Action

The Proposed Action would have minor temporary and long-term direct and indirect effects to general wildlife. Direct long-term disturbances to wildlife would include the loss of approximately 5.27 acres of suitable habitat from vegetation, tree, and rock removal. This removal would be due to the installation of the distribution structures, access roads, and junction enclosures. Establishing the distribution poles could directly impact migrating species such as pronghorn antelope and mule deer by separating habitat and reducing habitat connectivity. However, most wildlife species are expected to move around the distribution poles and other structures. Blasting could remove some rock ledges that provide habitat for ungulates, however there is a lack of rock structures within the immediate project corridor (Enviroscientists 2014). The majority of the rock ledges occur to the north and south of the project survey corridor area. If blasting is required for the installation of the distribution structures and the construction of the new roads, it would be localized near the bottom of the switchbacks, where few rock ledges and cliffs are situated. Blasting would not occur near the top of New Pass Peak, where there is an existing access road. SPPCo and its contractor would perform pre- and post-blast inspections of existing structures that may sustain damage due to blasting operations. These inspections would include avoidance of rock ledges and cliffs.

Vegetation would be temporarily disturbed and removed within 11.12 acres of the ROW due to installation of pull sites, staging areas, access road widening, excavation for the underground portion of the distribution line, and vehicular and human traffic. Although direct impacts to wildlife habitat would occur from vegetation, tree, and rock removal, and a reduction in habitat connectivity, the overall acreage of impacted land is relatively minor compared to the amount

of available habitat in the vicinity of the project area. Also, because blasting activities would be limited to localized areas, and given that ungulates can move to other locations during such activities, habitat connectivity would not be reduced.

Direct noise and visual disturbances would temporarily occur from the presence of people and construction equipment during construction and periodically during annual inspections and maintenance. The presence of workers, construction equipment, and blasting would temporarily deter wildlife from using the project area as habitat. Measures would be implemented to reduce any potential negative effects to wildlife present in the vicinity of the project area.

Indirect long-term effects would occur due to the degradation of existing habitat through the removal of vegetation, trees, and rock. Habitat availability would be slightly decreased following completion of the project due to the removal of 5.27 acres of vegetation from the installation of permanent structures. However, the acreage planned for removal is small in context to the amount of available habitat within the vicinity of the project area.

#### *Avoidance and Mitigation Measures*

AMMs would be implemented to reduce impacts to wildlife within the project area. AMMs related to general wildlife species and associated habitats include:

1. Prior to construction (inclusive of ROW clearing and access road construction), biological surveys of the ROW and the access roads would be conducted by a qualified biologist who is familiar with the habitat and species likely to be encountered in the area. Potential habitat for listed species identified during the preconstruction survey would be fenced for avoidance. If avoidance is infeasible, consultation with appropriate jurisdictional agencies would be conducted prior to work in the area(s). Additionally, if land clearing activities are conducted in the avian breeding season, nesting bird surveys would be conducted to identify nests and evidence of breeding birds.
2. All temporary construction areas, including pull sites and staging areas that have been disturbed, would be recontoured and restored as required by the BLM. The method of restoration typically would consist of installing cross drains for erosion control, placing water bars in the road, and reseeded with a seeding mix approved by the BLM, to the extent practicable. Seed would be certified as weed-free by a qualified biologist.
3. Wherever possible, vegetation would be left in place. Where vegetation must be removed, it would be cut at ground level to preserve the root structure and allow for potential resprouting.

The Proposed Action would cause temporary and long-term direct effects and indirect effects to general wildlife and habitat, as the Proposed Action would be performed in an area that is considered year-round occupied habitat for mule deer and pronghorn antelope, and potential habitat for desert bighorn sheep. However, the overall acreage of impacted land would be relatively minor compared to the amount of available habitat in the vicinity of the project area. Since blasting activities would be limited and occur in localized areas, and given that ungulates can move to other locations during construction activities, habitat connectivity would not be reduced. Proposed AMMs would reduce or eliminate impacts to wildlife species. For example, the Proposed Action would permanently and temporarily disturb vegetation, but the project area



would be revegetated with native seed and would potentially restore areas to a better condition than prior to the construction of the project. For these reasons, effects to general wildlife associated with the implementation of the new distribution line facilities would be minimal.

### No Action Alternative

Under the no action alternative the Proposed Action would not be approved by the BLM and the ROW would not be issued. This alternative would maintain the current amount of habitat available for wildlife, but would not restore native vegetation that may be used by wildlife as habitat. Additionally, no temporary effects would occur from implementation of the no action alternative, such as vegetation removal and noise and visual disturbances.

## **3.5. Migratory Birds**

Migratory birds, as listed in 50 CFR Part 10.13, are ecologically and economically important to recreational activities in the US, including bird watching, studying, feeding, and hunting. The MBTA of 1918 (PL 65-186; 16 USC §703 et seq.) established regulations to regulate and limit the taking of migratory birds, their nests, eggs, parts, or products without the appropriate permit, and provides enforcement authority and penalties for violations. In addition to the MBTA, the 1988 amendment to the Fish and Wildlife Conservation Act (16 USC 2901-2911) mandates the United States Fish and Wildlife Service (USFWS) to "identify species, subspecies and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973." Additionally, in 2001, EO 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, was issued to focus attention of federal agencies on the environmental effects to migratory bird species and, where feasible, implement policies and programs which support the conservation and protection of migratory birds. The USFWS's 2008 List of Birds of Conservation Concern (BCC) is the most recent effort to carry out this Congressional mandate. The overall goal of the BCC list is to accurately identify the migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS's highest conservation priorities.

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 (Public Law [PL] 87-884; 16 USC Code [USC] §668a-d) prohibits the taking or harming (i.e., harassment, sale, or transportation) of bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*), including their eggs, nests, or young, without the appropriate permit.

### **Affected Environment**

Migratory bird species and their habitat exist within the project area. Several migratory bird species have the potential to occur within the project area including BLM sensitive species, Nevada state-listed species, Region 9 BCC, and federally listed species under ESA (Table 3.3). According to the Biological Survey Report (BSR), 15 species were documented in the project area during a field survey conducted from July 28 through July 31, 2014 and are noted below in Table 3.3 (Enviroscientists 2014). Field surveys were conducted in accordance with BLM Nevada Statewide Wildlife Survey Protocols for migratory bird and raptor surveys (Appendix C).

Raptors species were documented during field surveys. Three raptor nests and 11 raptor sightings were recorded within the raptor survey area (Figure 8, Appendix A). Raptor species noted in the field are listed in Table 3.3 below. Raptor nests found included two unoccupied and unknown raptor nests and one occupied red-tailed hawk nest. The Nevada Division of Wildlife (NDOW)

reported six known raptor nests within ten miles of the project area, consisting of two historical eagle nests, one recent eagle nest (last checked in 2011), and three ferruginous hawk (*Buteo regalis*) nests. According to the NDOW, the Cooper's hawk (*Accipiter cooperii*) is the only raptor species that has been directly observed in the vicinity of the project area (Enviroscientists 2014).

Habitat for migratory bird species within the project area consists primarily of shrubland and grassland with scattered singleleaf pinyon (*Pinus monophylla*) and Utah juniper (*Juniperus osteosperma*) trees, sagebrush (*Artemisia spp.*), greasewood (*Sarcobatus vermiculatus*), a variety of grass species, and recently burned snags (Section 3.6). Pinyon-juniper portions of the raptor survey area provide roosting, nesting, and foraging habitat for several species, including American kestrel (*Falco sparverius*). Shrubland and grassland vegetation provides foraging, nesting, and roosting habitat, although most areas are degraded due to recent fire activity and livestock grazing. Several species are dependent upon sagebrush habitat for nesting, foraging, and cover, including Brewer's sparrow (*Spizella breweri*), sage sparrow (*Artemisiospiza nevadensis*), and sage thrasher (*Oreoscoptes montanus*). Other species, such as horned lark (*Eremophila alpestris*) and mountain plover (*Charadrius montanus*), are highly dependent on open fields with bare ground or short-grass vegetation and nest on the ground. Suitable foraging habitat is present throughout the raptor survey area for the following raptor species: golden eagle (*Aquila chrysaetos*), long-eared owl (*Asio otus*), northern harrier (*Circus cyaneus*), prairie falcon (*Falco mexicanus*), red-tailed hawk (*Buteo jamaicensis*), and the turkey vulture (*Cathartes aura*).

In addition to shrubland and grassland vegetation, rock ledges, and cliffs present within the raptor survey area located north and south of the project area provide nesting habitat for some raptor species protected under MBTA, such as golden eagle and prairie falcon. The immediate project area lacks rock ledges and cliffs (Enviroscientists 2014). Nesting habitat exists for many species listed in Table 3.3; however, no non-raptor migratory bird nests were noted during field surveys.

**Table 3.3. Migratory bird species with potential to occur within the project area.**

Common Name	Scientific Name	BLM Status	Nevada Status	Federal ESA Status	Region 9 (Great Basin) BCC
<b>American kestrel</b>	<i>Falco sparverius</i>				
Bald eagle (Contiguous US Population)	<i>Haliaeetus leucocephalus</i>	S	E		X
Black-chinned sparrow	<i>Spizella atrogularis</i>				X
Black rosy-finch	<i>Leucosticte atrata</i>	S			X
Black swift	<i>Cypseloides niger</i>				X
Brewer's sparrow	<i>Spizella breweri</i>	S	S		X
Calliope hummingbird	<i>Selasphorus calliope</i>				X
<b>Clark's nutcracker</b>	<i>Nucifraga columbiana</i>				
<b>Common nighthawk</b>	<i>Chordeiles minor</i>				
<b>Common raven</b>	<i>Corvus corax</i>				
Eared grebe	<i>Podiceps nigricollis</i>				X
Ferruginous hawk	<i>Buteo regalis</i>	S			X
Flammulated owl	<i>Psiloscops flammeolus</i>				X
<b>Flycatcher</b>	<i>Empidonax spp.</i>				
<b>Golden eagle</b>	<i>Aquila chrysaetos</i>	S			X
Green-tailed towhee	<i>Pipilo chlorurus</i>				X
<b>Horned lark</b>	<i>Eremophila alpestris</i>				
Lewis's woodpecker	<i>Melanerpes lewis</i>	S			X
Loggerhead shrike	<i>Lanius ludovicianus</i>	S	S		X

Common Name	Scientific Name	BLM Status	Nevada Status	Federal ESA Status	Region 9 (Great Basin) BCC
Long-billed curlew	<i>Numenius americanus</i>				X
<b>Long-eared owl</b>	<i>Asio otus</i>				
Marbled godwit	<i>Limosa fedoa</i>				X
Mountain plover	<i>Charadrius montanus</i>			PT	
<b>Mourning dove</b>	<i>Zenaida macroura</i>				
<b>Northern flicker</b>	<i>Colaptes auratus</i>				
Northern goshawk	<i>Accipiter gentilis</i>	S	S		
<b>Northern harrier</b>	<i>Circus cyaneus</i>				
Peregrine falcon	<i>Falco peregrinus</i>				X
Pinyon jay	<i>Gymnorhinus cyanocephalus</i>	S			X
<b>Prairie falcon</b>	<i>Falco mexicanus</i>	S			
<b>Red-tailed hawk</b>	<i>Buteo jamaicensis</i>				
<b>Rock wren</b>	<i>Salpinctes obsoletus</i>				
Sage sparrow	<i>Artemisiospiza nevadensis</i>				X
Sage thrasher	<i>Oreoscoptes montanus</i>	S	S		X
Swainson's hawk	<i>Buteo swainsoni</i>	S			
Tricolored blackbird	<i>Agelaius tricolor</i>				X
<b>Turkey vulture</b>	<i>Cathartes aura</i>				
Virginia's warbler	<i>Oreothlypis virginiae</i>				X
Williamson's sapsucker	<i>Sphyrapicus thyroideus</i>				X
Willow flycatcher	<i>Empidonax traillii</i>			C	X
Western burrowing owl	<i>Athene cunicularia hypugaea</i>	S			X
Western snowy plover	<i>Charadrius nivosus</i>	S			X
Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	S	S	C	X
White-headed woodpecker	<i>Picoides albolarvatus</i>				X
Yellow rail	<i>Coturnicops noveboracensis</i>				X

S – Sensitive, E – Endangered, PT – Proposed threatened, C – Candidate

Species in **Bold** were observed within the project area during surveys conducted in July 2014.

Source: Enviroscientists 2014

## Environmental Consequences

This section describes the environmental consequences for migratory birds that could occur if the Proposed Action is constructed in the project area. This section also lists AMMs that would be implemented to avoid or reduce effects to migratory birds.

### Proposed Action

Direct effects to migratory bird species, including raptors would be the same as the effects to general wildlife species described in the Environmental Consequences portion of Section 3.4, *General Wildlife Species*. The direct and indirect effects described here focus on additional potential direct and indirect effects to migratory birds based on available suitable habitat within the project area.

Although negligible on a regional scale, direct, long-term disturbance of aerial flight corridors that allow for foraging, movement, and migration behaviors could occur due to the establishment of approximately 85 poles that are 38.5 feet high with associated connected lines that span 3.85 miles. However, birds are able to fly around structures such as distribution lines (APLIC 2015), and the establishment of the distribution poles would not directly impact individual migratory birds. Also, given the average height and the number of the poles that would span a small area, these structures would not reduce habitat connectivity. Although direct impacts to migratory bird habitat would occur from vegetation, tree, and rock removal, and the establishment of distribution line poles may interfere with flight corridors, the overall impacts are relatively small in the context of available habitat in the vicinity of the project area. Potential habitat exists within the project area, but currently the quality is low due to recent fire activity and frequent livestock grazing. While 15 migratory bird species were detected within the project area, no migratory nests were observed.

Indirect long-term effects would occur due to the degradation of existing habitat through vegetation removal; these effects are the same as those described for general wildlife species in Section 3.4, *General Wildlife Species*. As a result, habitat quality would be lowered following the removal of 5.26 acres of vegetation from the installation of permanent structures. However, the acreage planned for removal is small in the context of the amount of available habitat within the vicinity of the project area, and the current habitat quality is considered low due to recent fire activity and frequent livestock grazing. Therefore, there would be little to no effect on migratory birds as a result of implementing the Proposed Action.

#### *Avoidance and Mitigation Measures*

The AMMs described below would be implemented to reduce impacts to migratory birds within the project area. AMMs related to migratory bird species include:

1. In order to avoid nesting times for raptors (March 1-August 31) and other migratory birds and burrowing owl (April 1-July 31), project activities would be implemented outside the nesting season. If land clearing activities are conducted in either nesting season, preconstruction nesting bird surveys would be conducted to identify nests and evidence of breeding birds; appropriate no-work buffers would be applied around active nests.
2. Structures would be constructed to conform to those practices described in the Suggested Practices for Raptor Protection on Power Lines Manual developed by the Edison Electric Institute.
3. All environmentally sensitive areas, including migratory bird nests and appropriate buffers, would be fenced for avoidance.
4. Prior to construction, all construction personnel would be instructed on the protection of sensitive biological resources that have the potential to occur on site.
5. During the fall immediately following construction completion, disturbed areas would be reseeded with an appropriate mix, approved by the BLM, to establish ground cover.
6. Wherever possible, vegetation would be left in place. Where vegetation must be removed, it would be cut at ground level to preserve the root structure and allow for potential resprouting.

7. All temporary construction areas, including stringing sites and staging areas that have been disturbed, would be recontoured and restored as required by the BLM. The method of restoration typically would consist of seeding or revegetating, installing cross drains for erosion control, and placing water bars in the road. Seed would be certified as weed-free by a qualified biologist.
8. Prior to construction (inclusive of ROW clearing and access road construction), biological surveys of the ROW and the access roads would be conducted by a qualified biologist. If avoidance is infeasible, consultation with appropriate jurisdictional agencies would be conducted prior to work in the area(s).
9. If an animal species is identified during construction, work near the sensitive species would be halted and a qualified biologist familiar with the regional habitat and species would be consulted to determine an appropriate buffer and other protective measures.

The Proposed Action would cause both temporary and long-term direct effects to migratory bird species habitat. However, the Proposed Action would be performed outside of sensitive migratory bird and raptor nesting seasons to avoid any direct impacts to nesting migratory bird individuals and offspring within the site. Although raptors were sighted during field surveys and one raptor nest was occupied just outside the project area, there is a lack of rock outcrops within the immediate corridor area for migratory bird nests (Enviroscientists 2014). Proposed AMMs would further reduce or eliminate impacts to migratory bird species. For these reasons, changes to the migratory bird habitat associated with the implementation of the new distribution facilities would be minimal.

#### No Action Alternative

Under the no action alternative, the Proposed Action would not be approved by the BLM and the ROW would not be issued. The land would remain as is, and would not incur any impacts from the installation of the distribution line. There would be no loss of habitat for migratory birds.

### **3.6. Vegetation**

#### **Affected Environment**

Field surveys were conducted from July 28, 2014 through July 31, 2014 in accordance with BLM Nevada Statewide Survey Protocols for Vegetation and Soils – Baseline Data Collection Methods (Appendix C). Field surveys confirmed the presence of eight of the 11 Southwest Regional Gap Analysis Project (SWReGAP) vegetation communities within the project area. SWReGAP is a landcover analysis project that covers five states in the region and classifies 125 different natural and anthropomorphic landcover and use classes (US Geological Survey [USGS] 2005). The field-verified vegetation communities and remapped boundaries are shown on Figure 9 (Appendix A). A floral compendium of all of the plant species observed during the field survey is presented in the BSR (Enviroscientists 2014 [Appendix C]).

The community composition matched the following vegetation communities: Great Basin Pinyon-Juniper Woodland; Intermountain Basins Big Sagebrush Shrubland; Intermountain Basins Cliff and Canyon; Intermountain Basins Greasewood Flat; Intermountain Basins Montane Sagebrush Steppe; Intermountain Basins Semi-Desert Grassland; Invasive Annual and Biennial Forbland; and Recently Burned. A summary of each vegetation community, some species

potentially present, and the acreage within the project area are listed below in Table 3.4. Photos of vegetation communities are presented in the BSR located in Appendix C, and locations of each community type are displayed on Figure 9 in Appendix A.

**Table 3.4. SWReGAP vegetation communities present within the project area.**

Vegetation Community	Description	Common Species	Acreage in Project Area
Great Basin Pinyon-Juniper Woodland	Occurs on dry mountain ranges of the Great Basin region on warm, dry sites, on mountain slopes, mesas, plateaus, and ridges at elevations from 5,250 to 8,530 feet AMSL.	Singleleaf pinyon ( <i>Pinus monophylla</i> ), Utah juniper ( <i>Juniperus osteosperma</i> ), sagebrush ( <i>Artemisia</i> spp.), mountain mahogany ( <i>Cercocarpus</i> spp.), oak ( <i>Quercus</i> spp.), needle and thread ( <i>Hesperostipa comata</i> ), bluebunch wheatgrass ( <i>Pseudoroegneria spicata</i> ), and basin wildrye ( <i>Leymus cinereus</i> ).	11.3
Intermountain Basins Big Sagebrush Shrubland	Occurs within broad basins between mountain ranges, plains and foothills from 4,921 to 7,545 feet AMSL with deep, well-drained and non-saline soils.	Big sagebrush ( <i>Artemisia tridentata</i> ssp. <i>tridentata</i> ), yellow rabbitbrush ( <i>Chrysothamnus viscidiflorus</i> ), greasewood ( <i>Sarcobatus vermiculatus</i> ), antelope bitterbrush ( <i>Purshia tridentata</i> ), mountain snowberry ( <i>Symphoricarpos oreophilus</i> ), Indian ricegrass ( <i>Achnatherum hymenoides</i> ), blue gramma ( <i>Bouteloua gracilis</i> ), and western wheatgrass ( <i>Pascopyrum smithii</i> ).	20.8
Intermountain Basins Cliff and Canyon	Occurs from the foothills to subalpine elevations and includes barren and sparsely vegetated landscapes (generally <10 percent plant cover) of steep cliff faces, narrow canyons, and smaller rock outcrops of various igneous, sedimentary, and metamorphic bedrock types.	White fir ( <i>Abies concolor</i> ), limber pine ( <i>Pinus flexilis</i> ), singleleaf pinyon, Utah juniper ( <i>Juniperus osteosperma</i> ), sagebrush ( <i>Artemisia</i> spp.), antelope bitterbrush ( <i>Purshia tridentate</i> ), mountain mahogany ( <i>Cercocarpus</i> spp.), jointfir ( <i>Ephedra</i> spp.), and oceanspray ( <i>Holodiscus discolor</i> )	0.9
Intermountain Basins Greasewood Flat	Observed near drainages on stream terraces and flats or may form rings around more sparsely vegetated playas with saline soils, a shallow water table, and flood intermittently, but remain dry for most growing seasons.	Greasewood ( <i>Sarcobatus vermiculatus</i> ), fourwing saltbush ( <i>Atriplex canescens</i> ), shadscale ( <i>Atriplex confertifolia</i> ), winterfat ( <i>Krascheninnikovia lanata</i> ), saltgrass ( <i>Distichlis spicata</i> ), and common spikerush ( <i>Eleocharis palustris</i> ).	4.0
Intermountain Basins Montane Sagebrush Steppe	Occurs at montane and subalpine elevations across the western U.S on deep-soiled to stony flats, ridges, nearly flat ridgetops, and mountain slopes. In general, this community shows an affinity for mild topography, fine soils, and some source of subsurface moisture.	Mountain big sagebrush ( <i>Artemisia tridentate</i> ssp. <i>vaseyana</i> ), antelope bitterbrush ( <i>Purshia tridentate</i> ), snowberry ( <i>Symphoricarpos oreophilus</i> ), serviceberry ( <i>Amelanchier</i> spp.), wild crab apple ( <i>Peraphyllum ramosissimum</i> ), wax currant ( <i>Ribes cereum</i> ), yellow rabbitbrush, Arizona fescue ( <i>Festuca arizonica</i> ), needle and thread ( <i>Hesperostipa comata</i> ), muttongrass ( <i>Poa fendleriana</i> ), wheatgrass, mountain brome ( <i>Bromus carinatus</i> ).	17.4

Vegetation Community	Description	Common Species	Acreage in Project Area
Intermountain Basins Semi-Desert Grassland	Widespread and occurs throughout the Intermountain western US on dry plains and mesas, at approximately 4,750 to 7,610 feet AMSL. The grasslands occur in lowland and upland areas and may occupy swales, playas, mesa tops, plateau parks, alluvial flats, and plains, but sites are typically xeric with well-drained sandy or loamy-textured soils.	Indian ricegrass ( <i>Achnatherum hymenoides</i> ), threeawn ( <i>Aristida</i> spp.), blue grama ( <i>Bouteloua gracilis</i> ), needle and thread, muhly ( <i>Muhlenbergia</i> sp.), sagebrush, saltbush, blackbrush ( <i>Coleogyne</i> spp.), jointfir, broom snakeweed ( <i>Gutierrezia sarothrae</i> ), and winterfat ( <i>Krascheninnikovia lanata</i> ).	14.6
Invasive Annual and Biennial Forbland	Dominated by introduced annual and/or biennial forb species	Clasping pepperweed ( <i>Lepidium perfoliatum</i> ), curvseed butterwort ( <i>Ceratocephala testiculata</i> ), prickly Russian thistle ( <i>Salsola tragus</i> ), saltlover ( <i>Halogeton glomeratus</i> ), and western tansymustard ( <i>Descurainia pinnata</i> )	9.3
Recently Burned	Areas with recent fire activity.	Cheatgrass ( <i>Bromus tectorum</i> ), prickly Russian thistle, prickly lettuce ( <i>Lactuca serriola</i> ), saltlover, Wood's rose ( <i>Rosa woodsii</i> ), Mexican whorled milkweed ( <i>Asclepias fascicularis</i> ), bud sagebrush ( <i>Picrothamnus desertorum</i> ) and Wyoming big sagebrush ( <i>Artemisia tridentate</i> ssp <i>wyomingensis</i> ).	108.1
		<b>Total Acreage</b>	186.4
NOTE: Vegetation communities were only identified within the project survey area. The survey area for biological and cultural resources surveys consisted of a confined corridor study area. This corridor study area included a 300-foot wide corridor for the overhead portion of the distribution line, a 900-foot wide corridor for the switchback area and underground portion of the distribution line, and a 100-foot wide corridor for the underground portion placed within the existing access road on the top of New Pass Peak.			

Sources: Enviroscientists 2014, USGS 2005, SWReGAP 2015.

## Environmental Consequences

This section describes the environmental consequences for vegetation that could occur if the Proposed Action is constructed in the project area. This section also lists AMMs that would be implemented to avoid or reduce effects to vegetation.

### Proposed Action

The Proposed Action would have potential temporary and long-term effects to vegetation within the project area. Direct long-term disturbances to vegetation would include the loss of approximately 5.27 acres of suitable habitat, resulting from vegetation and tree removal. This removal would be due to the installation of the distribution structures, access roads, and junction enclosures. Vegetation would also be temporarily disturbed and removed within 11.22 acres of the ROW due to installation of pull sites, staging areas, access road widening, excavation for the underground portion of the transmission line, and vehicular and human traffic. Although impacts would occur from vegetation and tree removal, the overall impacts are relatively small compared to the amount of vegetated areas within the project area. Over 100 acres of vegetation recently burned in the 2012 Gilbert wildfire and another 1999 unnamed wildfire within this area.

Indirect effects to vegetation may occur as a result of construction and vegetation removal. Following completion of the Proposed Action, non-native plant species could spread due to ground disturbance and equipment and workers facilitating seed dispersal. Spread of weed species could result in the overall decrease in vegetation health within the project area.

### *Avoidance and Mitigation Measures*

The AMMs described below would be implemented to reduce impacts to vegetation and the spread of noxious weeds within the project area. AMMs related to vegetation include:

1. Wherever practicable, vegetation would be left in place. Where vegetation must be removed, it would be cut at ground level to preserve the root structure and allow for potential resprouting.
2. All temporary construction areas including stringing sites and staging areas that have been disturbed would be re-contoured and restored as required by the land management agency. The method of restoration typically would consist of seeding or revegetating, installing cross drains for erosion control, and placing water bars in the road. Seed would be certified as weed-free by a qualified biologist.
3. Prior to preconstruction activities, personnel would identify all noxious weeds present on the land to be included in the ROW Grant and provide this information to the BLM. A determination would be made by the BLM of any noxious weeds that require flagging for treatment. Personnel would treat the noxious weeds as required by the BLM.
4. Gravel or fill material would be sourced from a supplier or borrow pit that does not have a noxious weed population, as determined by a qualified biologist.
5. All off-road equipment would be cleaned (power or high-pressure cleaning) of all mud, dirt, and plant parts prior to initially moving equipment onto public land. Equipment would be cleaned again at an appropriate site if it leaves the project site prior to reentry.
6. Disturbances to areas infested with noxious weeds would be avoided to the extent possible.
7. Equipment or vehicles used in known areas infested with noxious weeds would be thoroughly cleaned before they are moved to a new location.
8. During the fall immediately following construction completion, disturbed areas would be reseeded with an appropriate seed mix approved by the BLM to establish ground cover.

Currently, vegetation quality is low within the project area due to the presence of many invasive non-native species, frequent livestock grazing, and recent wildfires that left burned, dead trees. Although the project would permanently and temporarily disturb and remove vegetation, the project area would be revegetated with native seed and would potentially restore areas to a better condition than prior to the construction of the project. For these reasons, the project is expected to have a net neutral to beneficial impact on project area vegetation.



### No Action Alternative

Under the no action alternative, the Proposed Action would not be approved by the BLM and the ROW would not be issued. The current conditions would remain the same. No temporary or permanent vegetation removal would occur. Noxious weed species present would continue to thrive and would still likely be spread by the presence of livestock grazing in the area, and as a result of recent wildfires. However, there would be no introduction of construction equipment and people that could act as additional transportation for weed species.

## **3.7. Special Status Animal Species**

Biological resources include native or naturalized plants and wildlife and the habitats in which they occur. Sensitive biological resources are defined as those plant and wildlife species listed as threatened or endangered, or proposed as such, by the USFWS or the NDOW. The Federal ESA of 1973 protects listed species against take, which includes killing, harming, harassing, or any action that may damage their habitat. Federal Species of Concern are not protected by the Federal ESA; however, these species warrant consideration because they could become listed and protected at any time.

Under Nevada state law (Nevada Revised Statutes [NRS] 503) the Board of Wildlife Commissioners maintains a list of native wildlife species in Nevada that have been determined to be either threatened or endangered according to criteria set forth by Nevada Administrative Code (NAC) 503.103. A similar list is maintained by the State Forester Fire Warden under NRS 527.

### **Affected Environment**

Special status species discussed in this section include endangered and threatened species and BLM sensitive animal species. Studies of endangered and threatened species and BLM special-status animal species with potential habitat in the project area were conducted to create a preliminary species list. Several sources of information were used to develop a species list, including the following documents:

- 2011 BLM Nevada Sensitive Species List for the Carson City District
- Habitat Assessment Form located in Appendix A of the 2014 Draft Statewide Wildlife Survey Protocols for BLM Nevada for wildlife species with potential habitat
- USFWS Information, Planning and Conservation System (IPaC) to perform a search for a site-specific list of federally endangered, threatened, or candidate species that have the potential to occur in the project area
- Nevada Department of Wildlife (NDOW) site-specific species information, including general wildlife and special status species information that have the potential to occur within the project area
- Nevada Natural Heritage Program (NNHP) endangered, threatened, candidate, or at-risk taxa recorded within or near the project area

Additional sources of information including the United States Geological Survey (USGS) National SWReGAP vegetation community data, the Natural Resources Conservation Service (NRCS) soils data, the USGS National Hydrography Dataset (NHD) for potential water sources, fire history, Google aerial imagery, USGS topographic maps, slope analysis for potential golden eagle habitat, site photographs, and known species accounts in the project area.

### *Endangered and Threatened Species*

The USFWS determined that two federally threatened or candidate species could have potential habitat within the project area: the Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*), a federal threatened species, and the Columbia spotted frog (*Rana luteiventris*), a federal Candidate species (USFWS 2014). No perennial drainages are located within the project area; therefore, there is no suitable habitat present for the Lahontan cutthroat trout or the Columbia spotted frog.

### *BLM Special Status Species - Animals*

All species lists and data may be found in the BSR in Appendix C. A preliminary list was created from these sources and was narrowed down based on discussions with the BLM wildlife biologist as to species that could occur within the project area (Table 3.5). These species were then evaluated to determine their likelihood of occurring within the project area based on the presence of habitat. Species identified as unlikely to occur within the project area, were therefore not further analyzed and include: bald eagle (*Haliaeetus leucocephalus*), pygmy rabbit (*Brachylagus idahoensis*), Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*), Columbia spotted frog (*Rana luteiventris*), and all bat species.

**Table 3.5. Special status animal species that may occur within the project area.**

Common Name	Scientific Name	USFWS Status	State Status	BLM Status	Likelihood to occur within the Project Area
<b>Birds</b>					
Bald eagle	<i>Haliaeetus leucocephalus</i>		S1B/S3N	S	Unlikely; lack of foraging habitat near the project area.
Brewer's sparrow	<i>Spizella breweri</i>		S4B	S	Probable; shrubland habitat exists within the project area.
Ferruginous hawk	<i>Buteo regalis</i>		S2	S	Probable; habitat exists within the entire project area.
Golden eagle	<i>Aquila chrysaetos</i>		S4	S	Probable; habitat exists within the entire project area.
Greater Sage-Grouse (GRSG)	<i>Centrocercus urophasianus</i>		S3	S	Probable; habitat exists within the project area.
Green-tailed towhee	<i>Pipilo chlorurus</i>		S5B		Probable; shrubland habitat exists within the project area.
Loggerhead shrike	<i>Lanius ludovicianus</i>		S4	S	Probable; habitat exists within the entire project area.
Peregrine falcon	<i>Falco peregrines</i>		S2	S	Probable; habitat exists within the entire project area.
Pinyon jay	<i>Gymorhinus cyanocephalus</i>		S4	S	Probable; pinyon-juniper woodland habitat exists within the project area.
Sage thrasher	<i>Oreoscoptes montanus</i>		S5B	S	Probable; shrubland habitat exists within the project area.
Western burrowing owl	<i>Athene cunicularia hypugaea</i>		S3B	S	Probable; sparsely vegetated habitat exists in the western portion of the project area.
<b>Mammals</b>					

Common Name	Scientific Name	USFWS Status	State Status	BLM Status	Likelihood to occur within the Project Area
Big brown bat	<i>Eptesicus fuscus</i>		S4	S	Unlikely; lack of roosting and maternity habitat and degraded foraging habitat.
California myotis	<i>Myotis californicus</i>		S4	S	Unlikely; lack of roosting and maternity habitat and degraded foraging habitat.
Dark kangaroo mouse	<i>Microdipodops megacephalus</i>		S2	S	Unlikely; requires sand or sand dune habitat, which is not present.
Desert bighorn sheep	<i>Ovis canadensis nelsoni</i>		S3S4	S	Probable; habitat exists within the entire project area. See Section 3.4.
Little brown myotis	<i>Myotis lucifugus</i>		S3	S	Unlikely; lack of roosting and maternity habitat and degraded foraging habitat.
Long-eared myotis	<i>Myotis evotis</i>		S4	S	Unlikely; lack of roosting and maternity habitat and degraded foraging habitat.
Mule deer	<i>Odocoileus hemionus</i>		S5		Probable; habitat exists in the mountainous portions of the project area. See Section 3.4.
Pale kangaroo mouse	<i>Microdipodops pallidus</i>		S2	S	Unlikely; requires sand or sand dune habitat, which is not present.
Pallid bat	<i>Antrozous pallidus</i>		S3B	S	Unlikely; lack of roosting and maternity habitat and degraded foraging habitat.
Pronghorn antelope	<i>Antilocapra Americana</i>		S5		Probable; habitat exists within the entire project area. See Section 3.4.
Pygmy rabbit	<i>Brachylagus idahoensis</i>	Pd	S3	S	Unlikely; sagebrush habitat recently burned and a general lack of sagebrush shrubland.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>		S2	S	Unlikely; lack of roosting and maternity habitat and degraded foraging habitat.
Western small-footed myotis	<i>Myotis cillolabrum</i>		S3	S	Unlikely; lack of roosting and maternity habitat and degraded foraging habitat.
<b>Amphibians</b>					
Columbia spotted frog (Great Basin DPS)	<i>Rana luteiventris</i>	C	S2S3	S	Unlikely; no perennial drainages present in the project area.
<b>Fish</b>					
Lahontan cutthroat trout	<i>Oncorhynchus clarkii henshawi</i>	T	S3	S	Unlikely; no perennial drainages present in the project area.
S – Sensitive, PT – Proposed Threatened, T – Threatened, C – Candidate, Pd- Petitioned					
State Ranks: S – State Status, 1 – Critically Imperiled, 2 – Imperiled, 3 – Vulnerable, 4 – Apparently Secure, 5 – Secure, B – Breeding Population, N – Non-breeding Population, S#S# - Uncertainty in the exact taxon ranking and population is estimated between two given ranks.					

Sources: Enviroscientists 2014, NNHP 2014.

The following seven avian species and one mammal species were identified as Nevada BLM Sensitive Species with the potential to occur within the project area:

- Brewer's Sparrow (*Spizella breweri*)
- Ferruginous hawk (*Buteo regalis*)
- Golden eagle (*Aquila chrysaetos*)
- Greater Sage-Grouse (GRSG) (*Centroercus urophasianus*)
- Loggerhead shrike (*Lanius ludovicianus*)

- Sage thrasher (*Oreoscoptes montanus*)
- Western burrowing owl (*Athene cunicularia hypugaea*)
- Desert bighorn sheep (*Ovis Canadensis nelsoni*)

These species with the potential to occur within the project area, are further described below.

#### Brewer's Sparrow

Brewer's sparrow is strongly associated with sagebrush with scattered shrubs and short grasses, although it prefers shrublands over grasslands. Individuals have also been found in mountain mahogany, rabbit brush, bunchgrass grasslands with shrubs, bitterbrush, *Ceanothus* sp., manzanita, and large opening in pinyon-juniper woodlands. Brewer's sparrows prefer sites with high shrub cover and large patches in between vegetation. Pairs usually build nests low to the ground, from a few centimeters to a meter above ground in sagebrush, scrub, or cactus (NNHP 2014). Individuals begin breeding in mid-April to early June and typically have four young per clutch (NatureServe 2009).

Brewer's sparrow may be present within the project area in the Intermountain Basins Big Sagebrush Shrubland, Intermountain Basins Greasewood Flat, and Intermountain Basins Montane Sagebrush Steppe vegetation communities. Brewer's sparrow could occur in Intermountain Basins Semi-Desert Grassland, but it is not the species' preferred habitat.

#### Ferruginous Hawk

Ferruginous hawks typically inhabit open country, sagebrush, saltbush-greasewood shrubland, and the periphery of pinyon-juniper and other woodland and desert communities. In Nevada, nests are primarily found in live juniper trees and in western Nevada; the species is also known to nest on tufa stacks and rock outcrops, sometimes on power line towers, and rarely on the ground under thick brush (NNHP 2014). The species may also nest in tall trees, willows in riparian corridors, cliff ledges, hillsides, or on mounds in the open desert. The species resides in the project area as a non-breeding resident, and could be present year-round. Individuals primarily prey on small mammals, but also take amphibians, insects, reptiles, and other birds. Having an open area to hunt is crucial to ferruginous hawk hunting (NatureServe 2009).

Ferruginous hawks could occur in any of the project area vegetation communities. Individuals may use Great Basin Pinyon-Juniper Woodland for nesting and all other communities for foraging habitat.

#### Golden Eagle

Golden eagles are generally found in open country, prairies, arctic and alpine tundra, open wooded country, and barren areas, especially in hilly or mountainous regions. In Nevada, nests are predominantly located on the rock ledge of a cliff or occasionally in a large tree. Nesting pairs often reuse nests in consecutive years, but also may pair and have several alternate nests; the pairs may also use the same nest in consecutive years or shift to alternate nests used in different years.

Golden eagles were recorded during the Raptor Survey (Enviroscientists 2014). Habitat for the species includes the entire project area, with cliffs and rock outcrops to the north and south of the project area providing nesting habitat, and all other areas providing foraging habitat.

## Greater Sage-Grouse

Greater Sage-Grouse (GRSG) reside at elevations from 4,000 to 9,000 feet in areas that contain sagebrush shrublands. They require sagebrush in order to live, as they utilize it for food, cover, and nesting and breeding grounds. They breed at lek sites, where males and females congregate to mate and then disperse to nesting areas. Females solely care for young following breeding (NDOW 2013; NatureServe 2009). GRSG may be year-round permanent residents or may migrate once or twice to breeding habitat and summer and winter ranges in the project area (NatureServe 2009). GRSG occur throughout northern and central Nevada where suitable habitat is present, including the proposed project area (USFWS 2013).

In 2014, NDOW consultation revealed that there are three mapped GRSG habitats within the project area, including Unsuitable Habitat, Low-Value Habitat/Transitional Range, and Essential/Irreplaceable Habitat, also known as Preliminary Priority Habitat (PPH) (Refer to NDOW Figures in Appendix E within Appendix C, *Biological Survey Report*). Habitat type terminology was changed in 2015 and details of the new designations are provided below. In the 2014 consultation documentation, NDOW reported that there are no known locations of radio-marked GRSG or lek sites in the vicinity of the project area (Enviroscientists 2014).

In order to protect the most important GRSG habitat areas, in 2015, state fish and wildlife agencies, the USFS, and the BLM amended land use plans in California and Nevada to address threats to the bird species. The USFS and BLM plans provide a layered management approach that focuses protection on the areas of highest importance to the species. As part of this effort, the USFS and BLM revised the PPH maps, as well as preliminary general habitat (PGH) maps (BLM 2015b). According to the Approved Greater Sage Grouse Plan Amendment, the PPH and PGH designations were subsequently updated and identified as Priority Habitat Management Areas (PHMAs), General Habitat Management Areas (GHMAs), or OHMAs. These designations were renamed and mapped to identify management decisions that would apply to each critical habitat area (BLM 2015b).

The highest level of protection is applied to PHMAs, which occur on BLM-administered lands identified as having the highest habitat value for maintaining sustainable GRSG populations. These areas include breeding, late brood-rearing, and winter concentration areas and migration and connectivity corridors. These areas are managed to avoid and minimize future surface disturbance and surface energy and mineral development is limited in these areas. PHMAs also include Sagebrush Focal Areas (SFAs), a subset of PHMA that includes known areas that represent recognized strongholds for GRSG populations (BLM 2015b).

GHMAs occur on BLM-administered lands and consist of habitat that is occupied seasonally or year-round. Special management applies to sustain GRSG populations in these habitat areas, although they would be less restrictive, as the areas provide greater flexibility for land use activities. Also, mitigation and design features would ensure that impacts from development are avoided, minimized, and mitigated (BLM 2015b).

OHMAs also occur on BLM-administered lands and are identified as unmapped habitat that contain seasonal or connectivity habitat areas for GRSG (BLM 2015b). The Essential/Irreplaceable Habitat, known as Preliminary Priority Habitat (PPH) identified in the Biological Survey Report (Appendix C) along the western slope of New Pass Peak is designated as OHMA.

After review of the recently published data provided in the Approved Greater Sage Grouse Plan Amendment, it was found that the project area overlaps with non-habitat areas and OHMA (Figure 10, Appendix A). Non-habitat areas exist in the northwestern two miles of the project area and a small part of the eastern portion of the project area. OHMA overlaps with 1.5 miles of the middle portion of the project area and the easternmost 1.5 miles of the project area.

### Loggerhead Shrike

Loggerhead shrikes may be found in croplands/hedgerows, deserts, grasslands, fields, savanna, or shrubland/chaparral habitat (NatureServe 2009). Individuals are often seen perching on poles, wires or fence posts. Suitable hunting perches are an important part of the habitat (NNHP 2014). Pairs breed in open country with scattered trees and shrubs, savanna, desert scrub, and, occasionally, open woodland. Nests in shrubs or small trees isolated from other vegetation and commonly found along fence lines or hedgerows. Pairs may nest in the same location in consecutive years, but this is uncommon. Loggerhead shrike prey upon insects, invertebrates, small birds, lizards, frogs, and rodents (NatureServe 2009). In Nevada, loggerhead shrike may be present year-round.

Loggerhead shrikes could occur in any of the project area vegetation communities. Individuals may use Great Basin Pinyon-Juniper Woodland for nesting and all other communities for foraging habitat.

### Sage Thrasher

Sage thrashers breed and forage in tall sagebrush/bunchgrass, juniper/sagebrush/bunchgrass, mountain mahogany/shrub, and aspen/sagebrush/bunchgrass communities. The species prefer shrub coverage and patchy bare ground. The species is rarely found around human disturbed areas and cities. Sage thrashers breed in Nevada from April to June and depart for wintering grounds around September.

Sage thrashers may be present within the project area in the Intermountain Basins Big Sagebrush Shrubland, Intermountain Basins Greasewood Flat, and Intermountain Basins Montane Sagebrush Steppe vegetation communities. Sage thrashers could occur in Intermountain Basins Semi-Desert Grassland, but it is not the species' preferred habitat.

### Western Burrowing Owl

Generally, the western burrowing owl requires open areas with short vegetation and presence of small mammal burrows. Individuals can be found in shrublands, grasslands, sagebrush-steppe, sagebrush, or vacant disturbed lots (NNHP 2014).

The western portion of the project area was determined to provide suitable habitat for western burrowing owls. This area is mostly free of trees and large shrubs and contains areas of sparse vegetation. Surveys for western burrowing owl were conducted at ten locations according the BLM Nevada Statewide Wildlife Survey Protocols. Surveys found that they occurred along the distribution line in the lower elevations of the project area within the Intermountain Basins Greasewood Flat, within Invasive Annual and Biennial Forbland, Recently Burned areas, Intermountain Basins Big Sagebrush Shrubland, and the Great Basin Pinyon-Juniper Woodland communities (Appendix A). No western burrowing owls were detected during the broadcast calls

at any of the ten locations. However, one inactive western burrowing owl burrow was observed within the Intermountain Basins Greasewood Flat community. There was minimal sign observed around the burrow and there were no indications of nesting activity.

### Desert bighorn sheep

The desert bighorn sheep is a subspecies of bighorn sheep found in the southwest desert region. The characteristics and behavior of the desert bighorn sheep follow the same characteristics of other bighorn sheep, except that they adapt to the lack of water in the desert, and can go for extended periods of time without drinking water. Desert bighorn sheep occur throughout Nevada, south of Interstate 80. Their habitat is characterized by rugged terrain that includes canyons, gulches, talus cliffs, steep slopes, mountaintops, and river benches (BLM 2014a). There is no known occupied habitat for desert bighorn sheep in the vicinity of the project area (Enviroscientists 2014). However, the higher elevations of the project area are considered potential desert bighorn sheep habitat. Occupied habitat for the desert bighorn sheep also exists approximately 10.5 miles to the south of the project area in the Desatoya Mountains south of US Highway 50 (Enviroscientists 2014).

## **Environmental Consequences**

This section describes the environmental consequences for special status species, including endangered and threatened species and BLM sensitive animal species that could occur if the Proposed Action is constructed in the project area. This section also lists AMMs that would be implemented to avoid or reduce effects to special status species.

### Proposed Action

Effects to special-status migratory bird species, including raptors (Brewer's Sparrow, Ferruginous hawk, Golden eagle, GRSG, Loggerhead shrike, Sage thrasher, and Western burrowing owl), would be the same as the effects to general wildlife species described in the Environmental Consequences portion of Section 3.4, *General Wildlife Species* and to migratory birds described in the Environmental Consequences portion of Section 3.5, *Migratory Birds*. The direct and indirect effects described here focus on new potential effects to special status species, specifically GRSG.

The Proposed Action would result in direct and indirect effects to GRSG habitat within the project area, as a portion of the new distribution line would result in new and additional disturbance within an OHMA. However, the Proposed Action would be consistent with Management Decisions (MDs) SSS-4 in the Approved Greater Sage Grouse Plan Amendment, as the Proposed Action would incorporate feasible RDFs, as needed into the project design. MD SSS-1 through SSS-3 only applies to activities that occur in PHMAs or GHMAs. Further, only a small portion of the proposed upper access road and the underground distribution line would occur within OHMA. The majority of the new disturbance would be collocated along the existing switchbacks and adjacent to the existing upper access road. Also, consultation with the BLM State Director, BLM biological staff, and NDOW concluded that GRSG habitat quality in the project area is limited (Enviroscientists 2014). Additionally, SPPCo has worked with BLM staff to incorporate feasible RDFs for the Proposed Action consistent with MD SSS-4. The Proposed Action would also be consistent with all management decisions for utility corridors and communication sites, including MDs LR-1 through LR-4. Further, the distribution line within OHMA near the top of New Pass Peak would be placed underground, consistent with the management direction for land use authorizations outlined in

MD LR -10. The majority of the upper road, where a portion of the distribution line would be buried currently traverses OHMA. Only a small portion of the 1.74 mile upper access road between the top of the switchbacks to the intersection with New Pass Peak road would be new.

Vegetation that provides suitable habitat for the GRSB would be temporarily disturbed and removed within the ROW due to installation of pull sites, staging areas, access road widening, excavation for the underground portion of the transmission line, and vehicular and human traffic. However, temporary vegetation disturbance would occur in mainly non-habitat areas for GRSB and a small portion of OHMA.

Establishing the distribution poles could also directly impact GRSB individuals by reducing habitat connectivity. However, given the GRSB could move around the distribution poles during operation, these effects would be minimal given the distribution line would be buried in OHMAs. Also, the overall impacts are relatively minor compared to the amount of available PHMA, GHMA, and OHMA habitat in the vicinity of the project area. Additionally, while OHMA exists within the project area, the majority of the habitat consists of low value habitat due to two recent wildfires and frequent livestock grazing.

Direct permanent and temporary noise and visual disturbance would occur from the presence of people and equipment during construction and intermittently during annual inspections and maintenance. The presence of workers, construction equipment, and blasting would potentially deter GRSB from using portions of the project area as habitat. As a result, the species are likely to relocate to other areas during construction.

Indirect long-term effects would result in the degradation of existing habitat through the removal of vegetation. Habitat quality would be lowered following completion of the project due to the removal of 5.26 acres of vegetation from the installation of permanent structures within the entire project area. However, the acreage planned for removal within the OHMA is small in context to the amount of available habitat within the vicinity of the project area.

### *Avoidance and Mitigation Measures*

AMMs were determined after reviewing the Revised Direction for *Proposed Activities within Greater Sage-Grouse Habitat* Instruction Memorandum (IM) No. NV-2015-017, incorporating the management direction from the 2015 Approved Greater Sage Grouse Plan Amendment, reviewing the RDFs listed in Appendix C of the Approved Greater Sage Grouse Plan Amendment, and consulting with the BLM. As instructed in IM NV-2015-017, the BLM Stillwater Field Office informally consulted with NDOW and with the State BLM Office. The BLM submitted a "Proposed Activities in Greater Sage-Grouse Preliminary Habitat Areas" form to the State BLM Office, which proposed to eliminate impacts to GRSB OHMA (i.e. formally referred to as "essential/irreplaceable habitat" or "Preliminary Priority Habitat" in the correspondence documentation) by burying a portion of the distribution line (Enviroscientists 2014). The buried portion of the distribution line would start at the bottom of the existing switchbacks, and continue up the western slope of New Pass Peak, then follow the access road on top of the peak to the communications site (Appendix D). The AMMs were also developed in conformance with the management decisions outlined in the Approved Greater Sage Grouse Plan Amendment, specifically MD SSS-4, as well the management decisions for Utility Corridors and Communication Sites (MD LR-1 through LR-3) and for Land Use Authorizations (MD LR-10). MD LR 10 requires that distribution power or communication lines be buried in PHMAs (BLM 2015c).



The Proposed Action does not overlap with PHMAs, however the distribution line is still proposed to be buried. Other AMMs related to environmental protections for GRSG incorporate applicable and general RDFs from Appendix C of the Approved Greater Sage Grouse Plan Amendment (BLM 2015c). These project AMMs include:

1. All environmentally sensitive areas would be fenced for avoidance.
2. Prior to construction, all construction personnel would be instructed on the protection of sensitive biological resources that have the potential to occur on site.
3. During the fall immediately following construction completion, disturbed areas would be reseeded with an appropriate seed mix approved by the BLM to establish ground cover.
4. Wherever possible, vegetation would be left in place. Where vegetation must be removed, it would be cut at ground level to preserve the root structure and allow for potential resprouting.
5. All temporary construction areas, including stringing sites and staging areas that have been disturbed, would be recontoured and restored as required by the land management agency. The method of restoration typically would consist of seeding or revegetating, installing cross drains for erosion control, and placing water bars in the road. Seed would be certified as weed-free by a qualified biologist.
6. Prior to construction (inclusive of ROW clearing and access road construction), biological surveys of the ROW and the access roads would be conducted by a qualified biologist. If avoidance is infeasible, consultation with appropriate jurisdictional agencies would be conducted prior to work in the area(s).
7. If an animal species is identified during construction, work near the sensitive species would be halted. A qualified biologist familiar with the regional habitat and species would be consulted to determine an appropriate buffer and other protective measures.
8. Locate new roads outside of GRSG habitat to the extent practical (RDF Gen 1).
9. Avoid constructing roads within riparian areas and ephemeral drainages. Construct low water crossings at right angles to ephemeral drainages and stream crossings (RDF Gen 2).
10. 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 operation. Design roads to an appropriate standard, no higher than necessary, to accommodate intended purpose and level of use (RDF Gen 3).
11. Coordinate road construction and use with ROW holders to minimize disturbance to the extent possible (RDF Gen 4).
12. 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 (RDF Gen 5).

13. 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 (RDF Gen 6).
14. Require dust abatement practices when authorizing use on roads (RDF Gen 7).
15. Equip temporary and permanent aboveground distribution poles with structures or devices that discourage nesting and perching of raptors, corvids, and other predators (RDF Gen 11).
16. Implement project site-cleaning practices to preclude the accumulation of debris, solid waste, putrescible wastes, and other potential anthropogenic subsidies for predators of GRS (RDF Gen 13).
17. Utilize mulching techniques to expedite reclamation and to protect soils if the site requires it (RDF Gen 15).
18. Restore disturbed areas at final reclamation to the pre-disturbance landforms and desired plant community (RDF Gen 17).
19. When authorizing ground-disturbing activities, require the use of vegetation and soil reclamation standards suitable for the site type prior to construction (RDF Gen 18).
20. Instruct all construction employees to avoid harassment and disturbance of wildlife, especially during the GRS breeding (e.g., courtship and nesting) season. In addition, pets would not be permitted on site during construction (RDF Gen 19).
21. To reduce predator perching in GRS habitat, limit the construction of vertical facilities and fences to the minimum number and amount needed and install anti-perch devices where applicable (RDF Gen 20).
22. Outfit all reservoirs, pits, tanks, troughs or similar features with appropriate type and number of wildlife escape ramps (RDF Gen 21).

To reduce the potential temporary and long-term direct and indirect effects to special status species, specifically GRS, a portion of the proposed distribution line within OHMA would be constructed underground. This mitigation measure provides habitat protection for the GRS that goes beyond what is required for OHMA areas. Furthermore, the Proposed Action would be performed outside of sensitive migratory bird and raptor nesting seasons, thereby, limiting effects to all seven avian special status animal species. Further, the proposed AMMs would reduce or eliminate impacts to special status species, including GRS. For these reasons, changes to the special status species habitat, specifically GRS habitat associated with the implementation of the new distribution line facilities would result in a minimal adverse effect.

#### No Action Alternative

Under the no action alternative, the Proposed Action would not be approved by the BLM and the ROW would not be issued. The land would remain as is, and would not incur any impacts from the installation of the distribution line. There would be no loss of habitat for special status wildlife species.

### 3.8. Forest Resources

Two vegetation communities that contain tree species exist within the project area: Great Basin Pinyon-Juniper Woodland and Intermountain Basins Cliff and Canyon. These communities are described in greater detail in Section 3.6 and are summarized in Table 3.6 below. Habitat for these species primarily occur on dry mountain ranges of the Great Basin region on warm, dry sites, on mountain slopes, mesas, plateaus, and ridges at elevations from 5,250 to 8,530 feet AMSL. None of these species have federal legal status, nor do they provide significant timber resources.

**Table 3.6. SWReGAP vegetation communities containing forest resources within the project area.**

Forest Community	Common Species	Acreage in Project Area
Great Basin Pinyon-Juniper Woodland	Utah juniper ( <i>Juniperus osteosperma</i> ) singleleaf pinyon ( <i>Pinus monophylla</i> ), oak species ( <i>Quercus spp.</i> ) including Gambel oak ( <i>Quercus gambelii</i> )	11.3
Intermountain Basins Cliff and Canyon	White fir ( <i>Abies concolor</i> ), limber, singleleaf pinyon ( <i>Pinus monophylla</i> )	0.9
NOTES:  The acreages of forest communities include only areas with characterized SWReGAP vegetation communities; only forest communities that contain tree species are included. The remaining portions of the project area have been burned, or consist of a different vegetation community that does not include trees.		

Source: Enviroscientists 2014, USGS 2005

Of the trees that could be found within the region, only Utah juniper and Singleleaf pinyon trees were observed within the project area. A brief description of these species that were found within the project area is below.

#### *Utah Juniper*

Utah juniper commonly grows on alluvial fans and dry, rocky hillsides, with shallow, alkaline soils. It grows less than 26.4 feet tall and is often as short as 9.9 to 14.8 feet. Utah junipers have a taproot that extends up to 15 feet into the soil and lateral roots that may extend as far as 100 feet from the tree, several inches below the soil surface. Utah junipers begin to produce seed when they are approximately 30 years old. They reproduce by seeds in cones and produce abundant seeds in most years or every few years. Seeds remain viable for long periods of time, with documentation of some species remaining viable for up to 45 years.

Utah juniper trees may live as long as 650 years. Utah juniper is usually killed by fire, especially when trees are small. However, trees have defense mechanisms to reduce ground cover surrounding the tree, therefore reducing fire fuels nearby and potentially protecting them from fire hazards. Utah juniper provides habitat for many species, including large ungulates such as pronghorn antelope, mule deer, and desert bighorn sheep (Zlatnik 1999). Several other species discussed in this document may potentially use the species for cover, nesting, and food resources. Today, juniper is cut for firewood, and juniper fence posts are still commonly seen on remote ranches (Zlatnik 1999). This species was found within the project area during field surveys (Enviroscientists 2014).

### *Singleleaf Pinyon*

Singleleaf pinyon is the predominant tree species in the isolated mountain ranges of the Great Basin in Nevada. Mature singleleaf pinyon is typically a short tree (20-40 feet tall). It is long-lived, commonly living 350 years in areas without fire, and individual trees have been known to live up to 1,000 years. Singleleaf pinyons reproduce by seed and the trees begin bearing cones around 35 years of age. Singleleaf pinyons provide cover and shelter for numerous birds and animals and game animals favor areas where pinyon-juniper woodlands form mosaics with browse shrubs. When stands are burned or removed, single-leaf pinyons tend to either be eliminated from the site, or it recolonizes very slowly. In some areas, expansion of aggressive annual exotic grasses serve as fine fuels in a differently structured ecosystem, altering the fire frequency and severity of future fires. It is not suitable for lumber because of its small size, irregular shape, and lack of self-pruning but can be used for particle and cement board (Zouhar 2001a). This species was found within the project area during field surveys (Enviroscientists 2014).

### **Environmental Consequences**

This section describes the environmental consequences for forest resources that could occur if the Proposed Action is constructed in the project area. This section also lists AMMs that would be implemented to avoid or reduce potential forest resource effects.

#### Proposed Action

The Proposed Action would result in long-term effects to forest resources within the project area. Permanent removal of trees would occur due to the installation of distribution structures, access roads, and junction enclosures. Tree removal would degrade the quality of existing forest resources and replacement of trees is not anticipated. Tree species present are slow-growing and slow to reproduce, so reforestation would take multiple decades. Many trees present were recently burned and may not have survived the fire. Although forestry impacts are expected, the overall impact is small relative to the available forest resources within the vicinity of project area.

The removal of forest resources would indirectly degrade habitat that provides shelter and food resources for wildlife and would indirectly be degraded in the project area. All of the tree species present provide habitat for birds, mammals, and reptiles. Although impacts could occur to habitat and wildlife, the majority of the project area was recently burned and trees in the project area no longer provide as many resources for wildlife. Burnt snags may still provide cover and food for some specialist species such as woodpeckers. Additionally, tree species present in the project area tend to reduce groundcover, and their removal may encourage the growth of opportunistic vegetation, including invasive and noxious weeds.

#### *Avoidance and Mitigation Measures*

There are no specific AMMs for forest resources. However, the implementation of AMMs that include revegetation in the project area would also reduce forest resource effects. Changes to the existing forest resources associated with the implementation of the new distribution line facilities would result in an adverse effect to forest resources. The Proposed Action would cause temporary and long-term direct effects and indirect effects to forest resources due to the loss of approximately 5.27 acres of vegetation removal. However, the overall acreage of impacted land is relatively minor compared to the amount of available forest resources in the vicinity of the project area.

The majority of the project area was recently burned by two wildfires and trees no longer provide as many resources for wildlife. For these reasons, overall effects to forestry resources would be minimized.

### No Action Alternative

Under the no action alternative, the Proposed Action would not be approved by the BLM and the ROW would not be issued. The current conditions would remain the same. No long-term impacts from removal of trees would occur. No improvement to the vegetation or soils would occur.

## 3.9. Visual Resources

Section 102(a)(8) of the FLPMA establishes the policy that public lands be managed in a manner that will protect the quality of scenic values, among other values (43 USC §1701(a)(8)). To comply with this policy, the BLM utilizes the Visual Resource Management (VRM) system to ensure that scenic visual values on public lands are considered before allowing uses that may result in negative effects. The VRM system involves inventorying visual values and establishing management objectives for those values through the resource management planning process, and then evaluating proposed activities to determine whether they conform to the management objectives. The VRM system is described in BLM's Manual 8400, with additional guidance provided in Handbook H-8410-1 Visual Resource Inventory and H-8431 Visual Resource Contrast Rating.

The VRM system is used to manage visual resources in order to protect the quality of the visual values, maintain the existing visual quality, and protect unique visual resources that exist on public lands. A Visual Resource Inventory (VRI), which is considered baseline data to determine VRM objectives, was conducted in the CCD in 2011 and established VRI classes for visual ratings. These ratings describe an area in terms of visual or scenic quality (scenic quality is a measure of the visual appeal of a tract of land), distance zones (three defined zones based on relative visibility from travel routes or observation points), and viewer sensitivity to the landscape (the degree of public concern for an area's scenic quality). The VRI classes describe the existing conditions on the ground and are used in conjunction with the management objectives to determine the VRM objectives. There are four VRI classes within the CCD; each classification is defined below.

### **VRI Classification Definitions:**

*VRI Class I:* Assigned to all special areas where the current management situation requires maintaining a natural environment essentially unaltered by man, such as Wilderness Areas or WSAs.

*VRI Class II:* Highest visual value assigned through the inventory process and based on the combination of Scenic Quality, Visual Sensitivity Levels, and Distance Zones.

*VRI Class III:* Moderate visual value based on the combination of Scenic Quality, Visual Sensitivity Levels, and Distance Zones.

*VRI Class IV:* Low visual value based on the combination of Scenic Quality, Visual Sensitivity Levels, and Distance Zones.

VRM class designations are assigned based on a combination of the area's scenic quality, visual sensitivity, and distance zones (from the VRI) in combination with land use allocations and management objectives outlined in the land use plan. Once an area has been assigned a VRM class, the management objectives of that class are used to determine if the visual effects of proposed activities are within the prescribed amount of change allowed to the landscape characteristics. The Visual Contrast Rating system is used to determine the amount of change which may occur to the landscape from a proposed project.

The VRM system uses four classes to describe different degrees of modification allowed to the landscape and are used to gauge the amount of disturbance an area can tolerate before it exceeds the visual management objectives of the assigned VRM class. There are four VRM classes within the CCD; each classification is defined below.

### **VRM Classification Definitions**

*Class I:* The objective of this class is to preserve the existing character of the landscape. The level of change by the activity to the characteristic landscape should be very low and must not attract attention.

*Class II:* The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low.

*Class III:* The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape can be moderate. Management activities may attract attention, but should not dominate the view of the casual observer.

*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 can be high.

### **Visual Contrast Rating**

The degree to which a project adversely affects the visual quality of a landscape relates directly to the amount of visual contrast between it and the existing landscape character. The degree of contrast is measured by separating the landscape into major features (land, water, vegetation, structures) then assessing the contrast introduced by the project in terms of the basic design elements of form, line, color, and texture (BLM 1986b). The degree of contrast introduced by a proposed project with landscape elements is then rated as none, weak, moderate, or strong, as defined in Table 3.7. The Visual Contrast Rating system is used to determine the amount of change that would occur to the landscape from a proposed project. The purpose of this method is to reveal elements and features that cause the greatest visual effect, and to guide efforts to reduce the visual effect of a Proposed Action or activity. This process is described in detail in Handbook H-8431-1, Visual Resource Contrast Rating, and documented using BLM Form 8400-4. Refer to Appendix E for the analysis of the Proposed Action's impacts on visual quality.

**Table 3.7. Degree of Contrast Ratings**

Degree of Contrast	Criteria	Conformance with VRM Class
None	The element contrast is not visible or perceived.	VRM Class I-IV
Weak	The element contrast can be seen but does not attract attention.	VRM Class II-IV
Moderate	The element contrast begins to attract attention and begins to dominate the characteristic landscape.	VRM Class III-IV
Strong	The element contrast demands attention, will not be overlooked, and is dominant in the landscape.	VRM Class IV Only

Source: BLM Handbook 8431, Visual Contrast Rating

### **Affected Environment**

The environmental setting for visual resources is described in terms of the existing landscape, project viewshed, potential viewers, and distance zones. The existing landscape and project viewshed consists of a project study area that is described broadly to provide an overall context for the location of the Proposed Action. Representative views of the project study area are included to support the textual description of the existing landscape setting and viewsheds. The project study area extends approximately six miles from the project area for the Proposed Action. The project study area includes two key observation points (KOPs), described below, and landscape character photographs. The KOPs and project study area photographs are included in Appendix E.

Potential viewers are described in terms of the number of viewers, the duration of views, distance between the viewer and the Proposed Action, and viewer expectation. Viewer groups identified for the project study area include motorists along US Highway 50 and Alpine Road. Users of these roads include motorists traveling along US Highway 50 and recreational users along Alpine Road. Recreational users along Alpine Road include occasional Off Highway Vehicles (OHV) enthusiasts, seasonal hunters, agricultural farm employees, and dispersed recreationists. Viewer expectation considers viewer activity; adjacent land uses; special management areas in the vicinity; and any federal, state, or local regulations that protect visual resources in the area (BLM 1986c).

Distance zones used to discuss views are consistent with BLM standard definitions. These are foreground-middleground (between 0 and 3 to 5 miles), background (between 3 to 5 and 15 miles), and seldom-seen views (greater than 15 miles or hidden from view) (BLM 1986c). Generally, increased visual contrast within foreground-middleground distance zones would be more noticeable to viewers than increased visual contrast within background distance zones.

### **General Visual Setting**

The project area is located approximately six and a half miles north of US Highway 50 in the Edwards Creek Valley within the Basin and Range province, which includes the southwestern United States and northwestern Mexico. This province is characterized by generally north-south trending mountain ranges with intervening dry, alluvium-filled, flat-floored valleys, or playas. The existing landscape and viewshed is characterized by steep to gently sloping alluvial fans emerging from canyons often converge to form outwash plains, or bajadas, along the bases of the mountain ranges and form the transitional zones between mountains and valleys. Vegetation consists largely of low-growing, sparse, and regularly-spaced shrubs interspersed with smaller shrubs and bunchgrasses. Trees are rare in the valleys and on alluvial fans at lower elevations. Open water bodies and streams are very scarce within the province.

The Edwards Creek Valley is surrounded by the New Pass Range to the east, and the Clan Alpine Mountains to the north and west. Alluvial fans slope gently from the bases of the moderately steep mountains toward the interior of the valley where a dry lake bed is located. Vegetation within the project study area consists mostly of low-growing, sparse, and regularly-spaced shrubs and bunch grasses. Trees are located on the upper elevations in the New Pass range, but are relatively sparse due to an unnamed historic wildfire in 1999, and the Gilbert wildfire in 2012.

### **Key Observation Points**

KOPs represent both sensitive and typical public viewpoints in the project study area and form the basis of the visual analysis. KOPs were identified in consultation with the BLM Interdisciplinary team based on distance zones, landscape features, and the potential viewer groups and their sensitivity to visual resources. Because it is not feasible to analyze all views of the proposed project area, two KOPs were selected (in consultation with the BLM Stillwater Field Office Outdoor Recreation Specialist) to represent the existing visual setting and to compare to the Proposed Action alternative. The locations of the KOPs are described below. Contrast rating forms were completed for each KOP; the contrast rating forms are included in Appendix E. The following KOPs are used for this analysis:

#### *KOP 1 – View from US Highway 50 looking north at New Pass Peak*

KOP 1 is located approximately six and a half miles south of the project study area along US Highway 50 in Section 32 of T. 20N., R. 40E., MDB&M. KOP 1 shows a typical northerly view of New Pass Peak in the background where existing communication structures are present on the top of the peak, but not visible at this distance. Viewer groups with views from KOP 1 are generally motorists driving on US Highway 50 for work, pleasure, and other purposes. Generally, viewers driving for work are considered to have lower concern for visual resources. Some viewers driving east or west on US Highway 50 are driving to or from recreation activities; however, because they would be traveling at fairly high speeds, the duration of views would be fairly short. For these reasons, the majority of viewers for KOP 1 would have low to moderately low concern for views of the project study area.

In the view from KOP 1, the topography in the foreground-middleground distance zone consists of relatively flat to rolling hills, which extend toward the base of the New Pass Range in the background distance zone. The horizontal intersection between the rugged mountains and open plain, or valley bottom, generally creates a medium contrast of form, line, and texture. In some areas this contrast is softened by the gently sloping foothills intersecting the horizontal plain at a low angle. The mountains tend to be dappled dark grays, medium and light browns, yellow-browns, and tans intermixed. The valley plain tends to be a mix of dull greens, light browns, and orange browns that blend together more evenly and have a more fine-textured and homogeneous appearance than the mountains. The more vertical forms, coarse textures, and varied colors of the rugged mountain ranges contrast strongly with the more horizontal form, fine texture, and homogeneous colors of the valley plain. No water is visible in this view.

Vegetation form, texture, and color are generally very consistent over much of the valley plain, consisting almost exclusively of evenly-spaced, low sagebrush shrubs interspersed with lower-growing shrubs and bunchgrasses. The sagebrush shrubs are generally medium to light gray with light yellow tints on upper leaves and the other low-growing shrubs and grasses tend to be much lighter yellows, tans, and soft grays through much of the year. The contrast of the



vegetation color and texture very close to the observer (i.e., within several hundred feet) tends to be moderately strong. However, the overall effect throughout most of the view is homogeneous in color and fine in texture.

### *KOP 2 – Near Alpine Road from the Travis Farm Gravel Pit*

KOP 2 is located approximately three miles north of the project study area near Travis Farm gravel pit along Alpine Road and located in Section 2 of T. 21N., R. 39E., of the MDB&M. KOP 2 shows a typical view of the proposed project alignment along the Edwards Creek Valley floor (the foreground-middleground distance zone), the western side of the New Pass Range (middleground-background distance zone), and along the New Pass Peak Ridge line (background distance zone), where existing communication structures are present, but not visible at this distance. Generally, Alpine Road does not have high recreational use, but does have infrequent OHV users, seasonal hunters, and workers accessing the agricultural fields located west of the project study area. The area surrounding KOP 2 includes human-disturbed areas, which includes the Travis Farm gravel pit, the existing Alpine Road, and structures associated with the Austin 201 Distribution Line. Therefore, the majority of viewers for KOP 2 would have low to moderately low concern for views of the project area.

In the view from KOP 2, the topography in the foreground-middleground distance zone consists of a relatively flat valley floor, which extends towards the base of the New Pass Range in the background distance zone. The horizontal intersection between the rugged mountains and valley bottom, generally creates a medium contrast of form, line, and texture. In some areas this contrast is softened by the gently sloping alluvial fan (foothills) intersecting the horizontal plain at a low angle. The mountains tend to be dappled dark grays, medium and light browns, yellow-browns, and tans intermixed. The valley plain tends to be a mix of dull greens, light browns, and orange browns that blend together more evenly and have a more fine-textured and homogeneous appearance than the mountains. The vertical forms, coarse textures, and varied colors of the rugged mountain ranges contrast strongly with the horizontal form, fine texture, and homogeneous colors of the valley plain. No water is visible in this view.

Vegetation form, texture, and color are generally very consistent over much of the valley plain, consisting almost exclusively of evenly-spaced, low sagebrush shrubs interspersed with lower-growing shrubs and bunchgrasses. The sagebrush shrubs are generally medium to light gray with light yellow tints on upper leaves and the other low-growing shrubs and grasses tend to be much lighter yellows, tans, and soft grays through much of the year. The contrast of the vegetation color and texture very close to the observer (i.e., within several hundred feet) tends to be moderately strong; however, the overall effect throughout most of the view is homogeneous in color and fine in texture.

### **Visual Resource Management Objectives**

The assignment of VRM objectives in the CCD CRMP was not completed for all lands in the planning area, including the more remote eastern and southern areas of the CCD. Therefore, these remote lands are considered to be unclassified. When no VRM objectives exist, the CCD CRMP standard operating procedures state that an interim VRM objective must be assigned at the time a project is proposed. However, the BLM CCD SFO would only establish an interim VRM class if they approve the project. The VRM objectives are to be developed using the guidelines established in BLM Handbook H-8410-1 and must conform to land use allocations set forth in the CCD CRMP.

On April 2, 2015, the Stillwater Field Office interdisciplinary team conducted a review of the VRI and assessed the current management activities in the project area because the project is located in an unclassified VRI area of the CCD. After the review, they provided a recommendation to the Field Manager to assign the project area and surrounding lands an interim VRM Class IV objective that ensured management decisions consistent with the resource allocations for the project area. Because the primary resource use within the project area consists of grazing and a communication site, establishing an interim VRM Class IV objective would be in compliance with current guidelines and policy for VRM. The interim VRM class would become official upon project approval and completion of the Decision Record.

## **Environmental Consequences**

This section describes the environmental consequences for visual resources that could occur if the Proposed Action is constructed. This section also lists AMMs that would avoid or reduce potential effects to visual resources. As discussed previously, the area was evaluated against an interim VRM Class IV designation. Appendix E contains the visual contrast rating worksheets (Form 8400-4) from the BLM Visual Resource Inventory Handbook H-8410-1. Landscape Character photographs are located and described in Appendix E.

### Proposed Action

The Proposed Action would result in the introduction of several permanent structural elements that are visually similar to existing man-made conditions and landscape character (i.e. a modified landscape with varying levels of energy or communication infrastructure). Contrast associated with the Proposed Action would be low and would not attract the attention of the casual observer. Long-term visual effects would result from the introduction of the new lower access road, the cleared vegetation within the ROW, operation of the distribution line and associated structures along the valley floor, and on the west side of the New Pass Range. The junction enclosures along the upper access road along the New Pass ridge line could also contrast in form and color with the surrounding landscape. However, the small size of the junction enclosures would likely result in moderate to weak contrast. Further, the distance of the project from sensitive viewers would create low levels of contrast. Most viewers would consist of motorists over six and a half miles away, travelling along US Highway 50.

For views from KOP 1, no distribution line facilities or construction activities would be visible and changes to the existing landscape for the new distribution line and related infrastructure would be consistent with VRM Class IV objectives and would result in a negligible adverse effect. For views from KOP 2, the new distribution line facilities would introduce new features in the view. However, the form, line, color, and texture of these new features would be similar to and more distant than those of existing distribution line features (i.e., Austin 201 Distribution Line) located along Alpine Road within the Edwards Creek Valley. These new features would be barely distinguishable in the distant middleground and background in this view. Further, the new distribution line features would be subordinate to these existing features and contrast would be very weak to none. Therefore, visual effects associated with the new distribution facilities are anticipated to be low to negligible for views from KOP 2.

Project AMMs would also reduce potential visual resources effects. For these reasons, long-term visual effects associated with new distribution line infrastructure would be low to negligible for views from both KOPs and throughout the project study area. Changes to the existing landscape and the construction of the new distribution line and related infrastructure would be consistent with VRM Class IV and would result in a negligible adverse effect.

Temporary visual effects would occur during construction of the Proposed Action and would likely consist of views of construction equipment, materials storage areas at staging areas and pull sites, and access routes. Some temporary ground disturbance may occur as a result of construction activities near the existing communication structures and access routes at the top of New Pass Peak ridgeline. Visual contrast resulting from temporary construction activities is anticipated to be moderate to weak.

#### *Avoidance and Mitigation Measures*

AMMs would be implemented to reduce impacts to visual resources within the project area. AMMs related to visual resources include:

1. All new structures should be painted using dark greens or browns similar to Beetle, Juniper Green, or Shadow Gray, as found on the BLM Standard Environmental Color Chart CC-001 to reduce visibility from areas most likely to be viewed by the public.
2. Vegetation removed during the construction phase should be used as vertical mulching on any areas with surface disturbance.
3. Surface disturbance should be kept to the minimum required to install equipment. Surface disturbance on side slopes on the edge of ridge should be avoided where possible.
4. All maintenance on existing structures should include painting with dark colors when necessary to reduce the cumulative effects to the site.
5. All existing roads used during construction would be left in a condition equal to, or better than their preconstruction condition.

Changes to the existing environment associated with the implementation of the new distribution facilities would be consistent with VRM Class IV objectives. For these reasons, short-term visual effects associated with construction of the new distribution line facilities are anticipated to be low to negligible for views from both KOPs and throughout the project study area. Project AMMs would further reduce potential visual resource effects. Therefore, implementation of the Proposed Action would result in negligible adverse effects to visual resources; and no additional mitigation would be required.

#### No Action Alternative

Under the no action alternative, the Proposed Action would not be approved on BLM lands and the ROW would not be issued. As a result, there would be no change in the visual setting at or within the project area.

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# **Chapter 4. Cumulative Impact Analysis**

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The purpose of the cumulative impacts analysis for the Proposed Action is to evaluate the combined, incremental effects of human activity within the scope of the project. Council of Environmental Quality (CEQ) regulations defines scope to include connected actions, cumulative actions, and similar actions (40 CFR 1508.25). The Council on Environmental Quality formally defines cumulative impacts as follows:

‘...the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time’ (40 CFR 1508.7).’

For the purposes of this EA, the cumulative impacts are the sum of all past, present (including proposed actions), and reasonably foreseeable future actions (RFFAs) resulting primarily from the implementation of the Proposed Action, the construction and operation of the New Pass Peak distribution line. The purpose of the cumulative analysis in this EA is to evaluate the significance of the Proposed Action’s contributions to cumulative environment.

As required under the NEPA and the regulations implementing NEPA, this chapter addresses those cumulative effects on the environmental resources in the Cumulative Effects Study Area (CESA), which could result from the implementation of the Proposed Action and no action alternative, past actions, present actions, and RFFAs. The extent of the CESA varies by resource based on the geographic or biological limits of that resource.

For the purposes of this analysis and under federal regulations, ‘impacts’ and ‘effects’ are assumed to have the same meaning and are interchangeable.

## 4.1. Past, Present and Reasonably Foreseeable Future Actions

This analysis identified past actions that are closely related in either time or geographic proximity to the project area. This analysis also identified present actions that are occurring at the time this EA was being prepared, and reasonably foreseeable future actions (BLM 2008). Reasonably foreseeable projects are those projects where there is an existing decision, funding, or formal proposal, such as an application submitted to the appropriate agency (see BLM NEPA Handbook H-1790-1 at Section 6.8.3.4). The past, present, and reasonably foreseeable future actions applicable to the CESA are identified as described in Table 4.1.

**Table 4.1. Past, Present, and Reasonably Foreseeable Future Actions by Project Type**

Project – Name or Description	Status (x)		
	Past	Present	Future
<b>General Projects</b>			
Issuance of multiple use decisions and grazing permits for ranching operations through the allotment evaluation process and the reassessment of the associated allotments.	x	x	x
Livestock Grazing	x	x	x
Invasive weed inventory/treatments	x	x	x
Recreation	x	x	x
Public Access Travel Management	x	x	x
Range Improvements (including fencing, wells and water developments)	x	x	x
<b>Specific Projects</b>			
New Pass Peak Communication Site	x	x	x
Travis Farm Land Sale/Gravel Pit		x	x

Project – Name or Description	Status (x)		
	Past	Present	Future
Fluid Mineral Leasing (Six Leasing Areas for Fluid Mineral Resources in Churchill, Lyon, Mineral, and Nye Counties, Nevada within the Carson City District)		x	x
Tungsten Mountains Geothermal Exploration Project		x	x
Austin 201 Distribution Line and ROW	x	x	X
2012 Gilbert Wildfire	x		
1999 Unnamed Wildfire	x		

Table 4.1 provides a list of reasonably foreseeable projects, which have the potential to combine with the effects of the Proposed Action and no action alternative and contribute to cumulative effects on specific environmental resources in this area. The general projects were assumed to have been recently constructed, currently under construction, or in operation, in which case, depending on their location, are considered part of the environmental baseline. This list was generated through consultation with the BLM Stillwater Field Office and through a review of environmental analysis documents for other nearby projects.

The majority of the projects listed in Table 4.1 occur within a two-mile radius of the Proposed Action. As a result, these projects are judged to be the most significant projects to consider for the cumulative analysis. The Tungsten Mountains Geothermal Exploration Project involves the exploration of numerous geothermal sites, east of Edwards Creek Valley, which is located over five miles from the Proposed Action. There are no additional projects that were considered to result in an adverse cumulative effect when combined with the Proposed Action.

The direct and indirect effects of the Proposed Action combined with the effects of the other actions that have a cumulative effect are analyzed for each resource or issue below. As discussed in BLM's NEPA Handbook H-1790-1 at Sections 6.8.3.1 and 6.8.3.2, no cumulative impact analysis is necessary for resources for which the Proposed Action and alternatives would have no direct or indirect effects. The analysis of direct and indirect effects in the previous sections came to the following conclusions:

- With implementation of AMMs, direct or indirect effects from the Proposed Action would occur to migratory birds, special status species (endangered and threatened species and BLM special status animal species), general wildlife, and forest resources. As a result, an analysis of cumulative effects for these biological resources is provided below.
- With implementation of AMMs, no adverse direct or indirect effects from the Proposed Action would occur to visual resources. Therefore, no further discussion to these resources is provided.

## 4.2. Cumulative Effects on Biological Resources

### Cumulative Impacts of the Proposed Action

The CESA for biological resources includes a two-mile buffer around the project area. Figure 11 illustrates the CESA for biological resources (See Appendix A). One existing distribution line, two historic wildfire events, and the Travis Farm land sale/gravel pit are located within the CESA, in addition to other uses within existing ROWs and dirt and gravel roads. A ROW for an existing north-south transmission line (i.e. Austin 201 Distribution Line) is located along Alpine Road at the western terminus of the proposed ROW. The proposed distribution line would connect to this distribution line. An unnamed historic wildfire occurred within the project area in 1999



(approximately 47,435 acres burned). The Gilbert wildfire occurred on the western side of New Pass Range in 2012 (approximately 31,503 acres burned). These fires contributed to the depletion of trees on the western portion of the New Pass Range within the CESA. The land sale/gravel pit, associated with the Travis Farm project (listed in Table 4.1), is located at the end of Alpine Road, near the beginning of the proposed overhead distribution line.

Projects within the two-mile radius of the Proposed Action would involve temporary and permanent vegetation and tree removal, and temporary and long-term noise and visual disturbances. These impacts could cumulatively affect migratory birds, special status species (animal), general wildlife, and forest resources in the vicinity of the Proposed Action and the past, present, and reasonably foreseeable projects in Table 4.1.

Impacts could include an overall reduction in available habitat from vegetation and tree removal; potential cliff ledge and rock removal is expected to be minimal given the lack of rock ledges in the immediate project corridor and because the majority of these habitat features are located to the north and south of the project area. Habitat fragmentation could also occur for many species, and as a result migration corridors could be interrupted on a larger scale considering other projects within the vicinity. Additionally, species present within the area could incur temporary visual and noise disturbances due to the presence of construction equipment and personnel. Forest resources may also be permanently reduced in the area if other projects involve tree removal. Tree species in the vicinity require long periods of time to regenerate and removal of these trees could permanently affect the viability of forest resources.

These impacts, combined with the existing ROW for the nearby distribution line, two historic wildfires, gravel pit, and other proposed projects in the vicinity could remove enough vegetation to impact wildlife and plant communities by fragmenting habitat, and disrupting migration corridors within the area. However, given that few projects currently occur or are proposed to occur within the project vicinity, and the types of projects do not involve the operation or construction of major buildings or structures, overall effects to these biological resources are anticipated to be minor and negligible. Also, the overall quality of the existing vegetation and forest resources is poor due to recent wildfire activity. The implementation of project AMMs would further minimize potential adverse effects. For these reasons, the Proposed Action in combination with other past, present, and reasonably foreseeable future projects would not cumulatively result in measurable adverse impacts to migratory birds, special status species (animal), general wildlife, and forest resources.

### **Cumulative Impacts of the No Action**

The no action alternative would not result in new features in the CESA and would not have a cumulatively considerable contribution to long-term biological cumulative effects.

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# **Chapter 5. List of Preparers**

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# Chapter 6. References

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# **Chapter 7. List of Appendices**

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## **Appendix B**

Photos of Proposed Action Route

## **Appendix C**

Biological Survey Report

## **Appendix D**

Proposed Activities in Greater Sage-grouse Habitat Areas Worksheet

## **Appendix E**

Visual Contrast Rating Worksheet