



United States Department of the Interior



BUREAU OF LAND MANAGEMENT
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ENVIRONMENTAL ASSESSMENT

1. Introduction

NUMBER

DOI-BLM-CO-N040-2013-0064

CASEFILE NUMBER

COC-75915

PROJECT NAME

Xcel Rifle to Parachute 230kV Transmission Line

LOCATION

The proposed project is to construct a second overhead single-circuit 230-kV electric transmission line between the Rifle and Parachute Substations (owned by Public Service Company of Colorado, an Xcel Energy company). The line would originate at the existing Rifle Substation located one mile south and one and one-half miles east of the Town of Rifle in the SE¼ of Section 14, T. 6 S., R. 93 W. The line would travel southwest for approximately 18 miles to the existing Parachute Substation located north of Highway 6 and 24 in the NE¼SW¼ of Section 6, T. 7 S., R. 95 W. (Figure 1). The line would traverse private property as well as federal lands administered by the Bureau of Land Management (BLM).

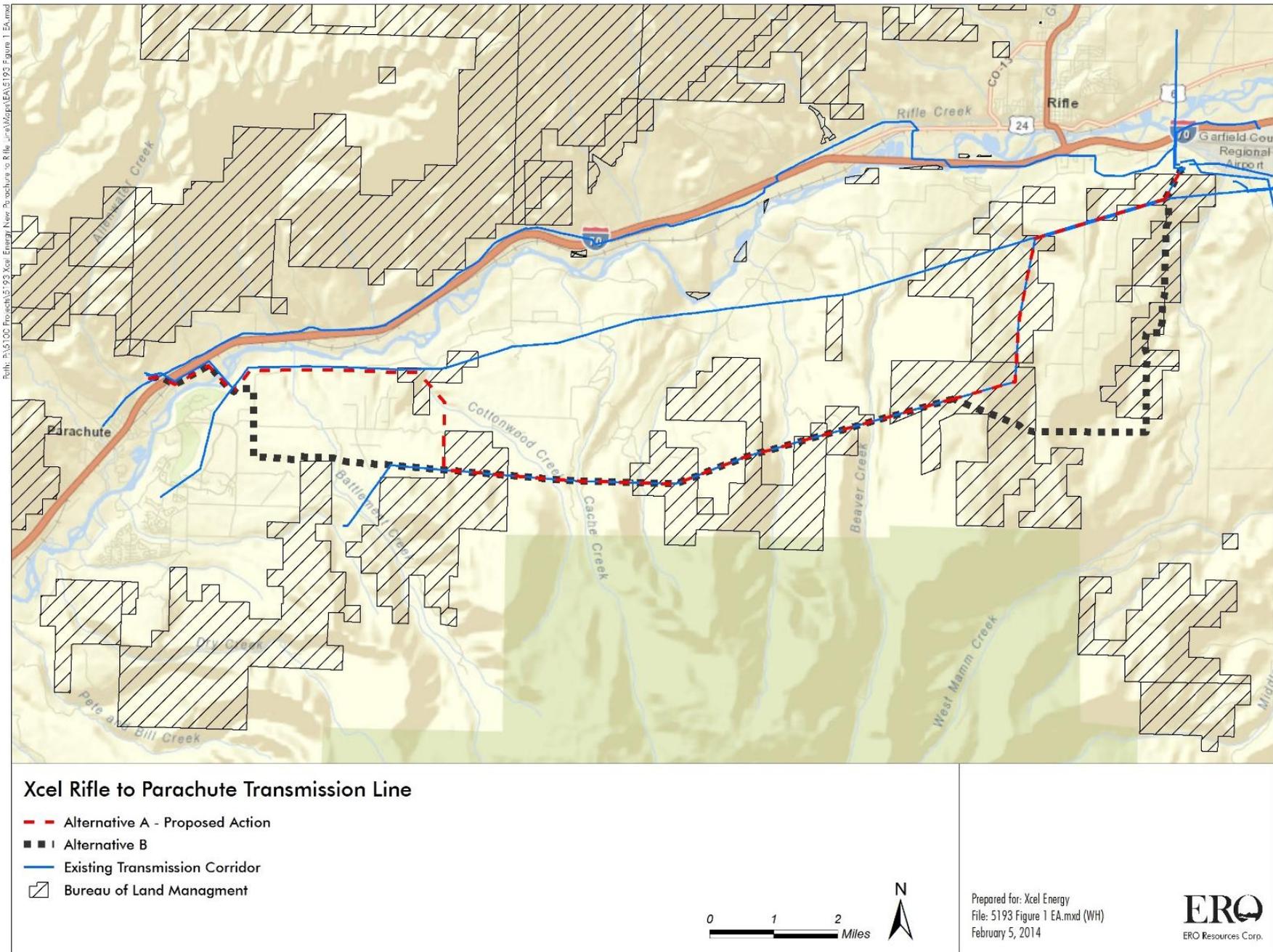
LEGAL DESCRIPTIONS

The project area is located in the following Sections:

Table 1. Project PLSS Location.

| Township | Range | Section(s) |
|-----------------|--------------|--------------------|
| 7S | 96W | 12 |
| 7S | 95W | 6,7,8,9,10,11,12 |
| 7S | 94W | 1,7,8,9,10,11,12 |
| 7S | 93W | 5,6,21,22,23,28,32 |
| 6S | 93W | 14 |

Figure 1. Project Area and Alternative Alignments



Path: \\s:\5100 Projects\5193 Xcel Energy\New 2\action - Rifle_line\Map\EA\5193 Figure 1 EA.mxd

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The project is located on the USGS North Mamm Peak, Parachute, Rifle, Rulison, and Silt, CO 7.5 minute quadrangles in Garfield County, Colorado (Figure 1). Coordinates for the approximate center of the project are:

- UTM Coordinates: Zone 13; 770803 mE, 4375719 mN
- Latitude/Longitude: 39.4884645 °N, 101.851186 °W

APPLICANT

Public Service Company of Colorado, an Xcel Energy company.

BACKGROUND

Public Service Company of Colorado is a major U.S. electric and natural gas company with regulated operations in eight Western and Midwestern states. Xcel Energy provides a comprehensive portfolio of energy-related products and services to 3.4 million electric customers and 1.9 million natural gas customers. The utility company name is “branded” as Xcel Energy; however, the legal owner and operator of the utility facilities in Colorado is Public Service Company of Colorado. All utility facilities and related land rights, including fee property, easements, permits, etc, are owned by operated by and held in the name of Public Service Company of Colorado (PSCo), a Colorado Corporation.

PSCo proposes to construct the Rifle to Parachute Transmission Line project. The project consists of:

- An overhead single-circuit 230,000-volt (230-kV) electric transmission line.
- Improvements to the existing Rifle and Parachute Substations.

The new line is needed to provide additional transmission capacity to serve the current and anticipated oil and gas production and exploration in the project area, including the Piceance Basin and surrounding area. Compressors are one of the main equipment components of oil and gas development. Typically, oil and gas developers have a choice between using natural gas-driven compressors or electric-driven compressors. Strict environmental regulations (air quality, noise, etc.) and competitive pricing of electricity drive the choice towards electric-driven compressors, which can reduce emissions and may result in decreased environmental impact. The anticipated demand increase is approximately 50 megawatts by 2015. The new line would prevent contingency overloads of PSCo’s existing Rifle to Parachute 230-kV line that could occur under high demand and high transfer level conditions.

The existing regional transmission system, including 230 kV line and 345 kV lines, does not have the capacity to meet anticipated future power demands. Additional transmission facilities are required to deliver the electricity to the load centers where energy needs are the greatest. The project is needed to enhance the reliability of the Western Slope transmission system in order to meet anticipated load growth caused by oil and gas fuel development in Mesa and Garfield counties.

The Project also supports retail service agreements in Western Colorado. The electrical demand increases (megawatts or “MW”) that are presently under development will push the existing Rifle-Parachute 230 kV line to the limits of its capacity. The load growth in the study area consists primarily of natural gas developers that require transmission service to electric motor driven gas compressors for natural gas gathering and gas compression applications in Mesa and

Garfield counties. Three committed load addition projects are being constructed or will be developed over the next two years. The Una Orchard load (Una Substation) increased its load by about 6 MW in 2012. The Starkey Gulch load (served out of Parachute Substation) is expected to increase 40 MW – from approximately 15 MVA today to 55 MVA over the next two years. The Middle Fork (also served out of Parachute Substation) demand is expected to increase about 5 MW – from approximately 45 MVA to around 50 MVA in the next year. These three projects will expend the last of the load-serving capacity of the existing Rifle-Parachute-Cameo transmission system. In addition, two other retail customer load addition projects (totaling approximately 57 MW) are currently being considered in the area. Those projects cannot be implemented until the proposed Project is completed. The existing 230-kV structures between PSCo’s Rifle and Parachute Substations are single-circuit capable. Rebuilding them to double-circuit capable (to string the new line on one side) is not possible due to construction outage limitations.

The construction and operation of the project also would provide a reliable second source of power (redundancy) into central Garfield County communities, including the towns of Rifle and Parachute. The transmission line is needed to provide uninterrupted electrical service to the area to meet anticipated electrical demand for businesses and the community.

The Colorado Public Utilities Commission requires a Certificate of Public Convenience and Necessity (CPCN) for construction and operation of an electric transmission line if the proposed project is out of the ordinary course of business for that utility. It is an application submitted by a utility to demonstrate that a proposed project would be a necessity and benefit the public. PSCo submitted the CPCN application for this project on January 11, 2013. The application was approved on February 27, 2013 (Docket # 13A-0032E).

PURPOSE AND NEED FOR ACTION

The purpose is to respond to PSCo request for a ROW grant to construct and maintain a 230kV transmission line across federal lands in multiple sections within T. 6 S., R. 93 W.; T. 7 S., R. 93 W.; T. 7 S., R. 94 W.; and T. 7 W., R. 95 W., Sixth Principal Meridian, Colorado. The need for the action is established by the BLM’s responsibility under FLPMA, to respond to a request for a ROW grant.

DECISION TO BE MADE

This EA discloses the environmental consequences of implementing the proposed action or alternatives to that action. Based on the analysis contained in this EA the BLM will make a decision whether to grant the right-of-way (ROW) to PSCo for a new transmission line with appropriate mitigation measures or reject it.

SCOPING AND PUBLIC INVOLVEMENT AND ISSUES

The route alignment alternatives for the proposed transmission line were scoped internally with the BLM NEPA Interdisciplinary Team on August 16, 2012, August 28, 2012 and April 17, 2013. Issues raised during the internal scoping are included in the scoping section below.

Scoping

Public and agency scoping was initiated in January 2012 with discussions and correspondence with state, federal, and local agencies. Information packages with potential transmission line route alignment alternatives were sent to agencies and the public, and PSCo established a project website to facilitate information access (<http://www.xcelenergy.com/rifle-parachute>). Three

public meetings were held, and members of the public and representatives of local, state, and federal agencies attended.

Public Involvement

PSCo hosted open houses to solicit comments on the proposed transmission line construction project on November 7th and 8th, 2012 in Rifle and Parachute respectively. An additional public meeting was held on March 5, 2013 in Rifle. Over 770 landowners (individual and business; see Appendix A for complete lists of landowners) within one-quarter mile of the alternative transmission line routes and various federal, state, and local agencies (see Table 21 for agency mailing list) were sent notices of the proposed project and invited to attend the public meetings and provide comments. The meeting notice also was posted on the Xcel website (<http://www.xcelenergy.com/rifle-parachute>) and on BLM's public notice website. In addition, articles announcing the November 2012 meetings were published in the following newspapers: Grand Junction Sentinel Nov. 3, 2012; Glenwood Post Independent Oct. 31, 2012 and Rifle Citizen Telegraph Nov. 1, 2012. About 50 to 60 members of the public and agency representatives participated in the public meetings. Two landowners expressed an interest in meeting with PSCo to discuss specific concerns. PSCo representatives met with those landowners in person during April 2013. Attendees were encouraged to sign in, given comment cards, and encouraged to submit comments in writing. BLM management was present to answer questions. Maps depicting the route alternatives of the proposed transmission line were available.

Issues

BLM received 17 written comments from the public, via comment cards from the open houses, letters, and emails. Participants at the public meetings also provided oral comments. Agency letters were received from Colorado Parks and Wildlife (CPW) and U.S. Fish and Wildlife Service (FWS). The following list summarizes the substantive issues raised by the public and agencies.

1. Concerns regarding the visual impact of new transmission lines in a corridor without existing transmission lines were raised. Members of the public were concerned that the visual impact would be detrimental to their quality of life and ability to continue their existing businesses (specifically, commercial tourism operations).
2. Concerns about the need for clearing or grubbing vegetation under the transmission line or within the entire ROW were raised.
3. Concerns related to direct and indirect impacts to sensitive wildlife habitat such as nesting, breeding and production areas, critical and severe winter ranges, and winter concentration areas were raised.
4. Concerns related to endangered species, including listed plant species and depletion impacts to the endangered Colorado River fishes were presented.
5. Concerns related to revegetation, reclamation, and the potential for erosion, sedimentation, and increases in weed populations were raised.
6. Potential cumulative impacts related to existing disturbance from oil and gas development were introduced as a concern.
7. Concerns regarding "ham" radio interference were communicated.

2. Proposed Action and Alternatives

Through the BLM, agency, and public scoping process, two “action” alternatives were identified for detailed analysis in this EA. The action alternatives follow the same alignment at several locations—specifically, from the Rifle substation south about ½ mile; from the Grass Mesa Area west to approximately Morrisania Mesa, and from the crossing of the Colorado River west to the Parachute substation (Figure 1). Under the no action alternative, BLM would deny PSCo’s ROW application for a transmission line across federal lands. Several alternatives were initially considered, but eliminated from further analysis based on adverse impacts identified during public and agency scoping. Alternatives considered but eliminated from detailed analysis are discussed in a separate section.

DESCRIPTION OF ACTION ALTERNATIVES

Project Overview

The Proposed Action involves the siting, permitting, and acquisition of an approximately 150 feet-wide ROW grant on BLM land and an easement on private property to construct a 230 kilovolt (kV) single-circuit transmission line between PSCo’s Rifle Ute Substation and Parachute Substation located in Garfield County (Figure 1). The line would originate at the existing Rifle Ute Substation southeast of the Town of Rifle and end about 20 miles east at the existing Parachute Substation near Highway 6/24 under both action alternatives. Each of the action alternatives would meet the project purpose and need for additional transmission line capacity. The following sections provide a brief overview of the specific characteristics of Alternative A, the proposed action alternative, and Alternative B. Because both of the action alternatives have similar components and methods of construction, common features are described together in the section on *Actions and Facilities Common to Alternatives A and B*. Table 1 below summarizes miles of transmission line by alternative and by land owner.

Table 1. Miles of Transmission Line by Alternative and by Land Owner.

| Miles of Transmission Line | | |
|----------------------------|--------------|--------------|
| Land ownership | Alt A | Alt B |
| BLM | 4.65 | 4.82 |
| BLM shared | 4.98 | 4.98 |
| Private | 5.38 | 6.52 |
| Private shared | 4.64 | 4.64 |
| Other | 0.86 | 0.86 |
| Total | 20.51 | 21.82 |

Alternative A, Proposed Action

Alternative A would involve construction of about 20.5 miles of 230 kV transmission line from the Rifle substation to the Parachute substation (Figure 1). The transmission line would parallel an existing 345 kV transmission line west for about 9.5 miles. The line would then turn north about 2 miles and follow an existing 230 kV transmission line corridor to PSCo’s Parachute substation. The estimated cost for this alternative, including ROW/easement acquisition, is about \$28 million.

Portions of the transmission line alignment fall within a designated energy corridor evaluated in the West-wide Energy Corridor Programmatic EIS (DOE, BLM 2008). Section 368 of Energy

Policy Act of 2005 requires, among other things, the designation of energy corridors on federal lands in 11 western states, including Colorado. The Act includes the establishment of procedures to ensure that additional corridors are identified and designated as necessary and to expedite applications to construct or modify pipelines, electricity transmission, and distribution facilities.

Alternative B

Alternative B would involve construction of about 21.8 miles of 230 kV transmission line from the Rifle substation to the Parachute substation (Figure 1). The route for this alternative would parallel the existing 345 kV transmission line about 0.5 miles south of the Rifle substation and would then travel south and west about 6.8 miles before intercepting the corridor for the existing 345 kV transmission and the same route as Alternative A. About 5 miles west of Parachute, this route departs from the common alignment with Alternative A and travels west and then north about 4 miles before following the existing 230 kV line and the Alternative A alignment to the Parachute substation. The estimated cost for this alternative, including ROW/easement acquisition, is about \$28 million.

Actions and Facilities Common to Alternatives A and B

Transmission Line Description

The width of the ROW, and the restrictions within it, are determined by the National Electric Safety Code (NESC) operation considerations and are proportional to the voltage and structure type. The proposed 230kV single circuit overhead transmission line of about 20 to 22 miles in length (depending on the alternative) would be located within a 150 foot ROW/easement. Both Alternative A and B transmission line routes would cross BLM and private lands. Easements would need to be purchased where project facilities cross private lands, along with ROW grants and permits for use of BLM lands. Weathering steel H-frame structures (detail attached), which are considered to be the industry standard for a 230kV transmission line, would be used. The average pole height associated with an H-frame structure would vary between 75 and 120 feet above the ground, depending on topographic conditions. The H-frame structure would support three conductors and two overhead groundwires. Spans between structures would vary between 600 and 1,300 feet and the number of structures per mile would vary between 5 and 10, depending on the terrain. A 1272 Bittern ASCR conductor would be used, which has a minimum ground clearance of 30 feet at maximum operating temperature. The structure foundation depth would vary depending on factors such as structure height, terrain and soil type. Final design characteristics would be determined in the detailed design phase of the project. Existing access roads would be used where available.

Associated Facilities and Procedures

In addition to the transmission line, the Project would also require construction and operation of material staging areas and various types of access.

Material Staging Areas – Temporary material staging areas would be required to store materials and equipment and to assemble structures for the duration of the project. The staging areas would generally be located at level areas in close proximity to existing highways or roads within the project area. The staging areas would be used to store material and equipment prior to delivery to the structure sites, park vehicles, and possibly for locating a portable construction trailer. The staging areas have been surveyed for environmental concerns and have been selected

to avoid sensitive areas. Eight potential staging areas have been identified on the west end of the project and 6 on the east end. All potential staging areas are located on private property in previously-disturbed areas. The staging areas would be revegetated and reclaimed after completion of the Project. Specific staging area locations would be selected based on landowner negotiation, and only 2 to 3 staging areas would be required for each end of the project (i.e., east and west end).

Access Roads – Access roads would be needed to facilitate both construction and regular inspection and maintenance of the project. Existing roads would be used to access the transmission line. There are many existing access roads within the project area, including public roads, private roads, well pad access roads, and other road types.

Construction of new access roads is not anticipated. If new access roads are required for the transmission line construction activities, these activities would be coordinated with the private land owner or the BLM as needed. The project corridor has been thoroughly surveyed and PSCo plans to use only existing access roads, as well as helicopter access, to construct the transmission line.

Helicopter Access – Helicopter access would be required during construction, as well as for future maintenance needs. Helicopters would typically travel to the material staging areas described previously to land and collect construction materials. If there is no road access to the structure locations, the helicopter would need to land on or adjacent to the proposed ROW to load and unload construction personnel to the fixture sites. Two potential “fly yards” have been identified, and have been selected to avoid sensitive areas. All potential “fly yards” would be located on private property in previously-disturbed areas. Helicopter fueling would occur at the Garfield County Regional Airport.

Right-of-Way Acquisition – New land rights in the name of PSCo would need to be obtained for the transmission line. A grant for a 150-foot-wide ROW on average would be needed for that portion of the transmission line that would cross federal lands administered by BLM, as well as an easement across private land. The BLM would receive ROW rental payment from PSCo for those portions of the transmission line located on BLM lands. Easement payments would also be made to private landowners.

Project Construction, Operation, and Maintenance

The following generally describes the activities that are anticipated to occur before and during the project construction and throughout operation and maintenance of the Project.

Engineering Surveys – Ground investigations and surveys would be completed to accurately locate the centerline of the transmission route. The exact centerline would be chosen to best implement design criteria and to satisfy site specific mitigation measures identified for this Project (see Design Features section). Before any construction surveying begins, the required permits to survey on federal lands, state lands or right-of-entry on private lands would be obtained. Construction survey work would consist of centerline and ROW/easement boundary locations. Structure locations would be flagged and staked, and the proposed centerline would be flagged and staked where it is necessary.

Construction Activities – Construction activities would include foundation excavations, assembling, and erecting structures, stringing conductors, restoration and cleanup, and site reclamation. Due to the length of the transmission line, it is anticipated that several crews would work simultaneously in constructing the line over the 9 to 12 month construction period. About

30 workers are expected to be needed during the construction. Construction sequencing, the number of workers, and type of equipment expected to be used for a typical section of line are as follows (per crew):

Drive-in Access

- Pickup (3; 3 to 5 people)
- Rubber Tired Backhoe/tracker (1; 1 operator)
- Flex-track (1; 1 operator)
- Bucket Truck (2; 2 operators, 2 personnel)
- Boom Truck (1; 1 operator, 1 personnel)
- Air Compressor (1; personnel noted above)
- Hand tools including shovels and jackhammers (various numbers; personnel noted above)

Walk-in/Fly-in Access (anticipated to be required for 38 to 43 poles total)

- Helicopter (1; 1 operator, various personnel on ground as well, normally 3 to 5 ground personnel)
- Hand tools including shovels and jackhammers (various numbers; personnel noted above)
- Air Compressor (1; personnel noted above)

Vegetation Management – Overland construction methods would be used. The clearing of some natural vegetation may be required; however, selective clearing would be performed only when necessary to provide for surveying, foundation excavation, electrical clearance requirements to support safety and line reliability, and construction and maintenance operations. Treatment of vegetation within the ROW includes the selective removal or trimming of trees to prevent contact between trees and the transmission line conductors. Disposal of cut trees and brush would be in a manner acceptable to the BLM or landowner. Tree removal is anticipated to be minimal due to the nature of the vegetation communities in the Project Area and the method of construction. Trimmed vegetation from transmission line or road maintenance would be placed adjacent to the roads or powerline within the BLM-approved ROW. Trimming would be completed with chainsaws or other hand-held equipment. Shrubs or small trees would be cut into smaller pieces and scattered, within the BLM-approved ROW. Trimmed vegetation pieces would be no larger than about 6 feet in length before being scattered. For each structure, an area about 20-feet by 40-feet would be cleared of vegetation to allow structure installation. For helicopter installation (ground personnel only, no vehicular access) an area about 10-feet by 10-feet for each of the two poles would be cleared of vegetation.

Weed Control – Weed control would follow recommendations of the *Partners Against Weeds Action Plan* (BLM 1996) to prevent the spread and establishment of noxious weeds in the project area. Any chemical treatments within the ROW would be in compliance with applicable laws and procedures of the BLM or other land managing agencies being traversed by the project. Noxious weed populations identified during field surveys and listed on the Garfield County Noxious weed list would be treated prior to any new ground disturbing activities. Locations of existing noxious weed populations were noted during a pre-construction survey of the approved route during rare plant surveys. Noxious weed populations identified along the alignment would be treated by PSCo with BLM-approved chemicals. Only targeted chemical weed treatments using a backpack sprayer would be permitted in identified habitat for Harrington's beardtongue.

Foundation Installation – Foundation designs and installation processes would depend on the geotechnical analysis and line design parameters of each particular structure site. No cut and fill would be required to conduct foundation installation activities. Excavations may be made using mechanized equipment, blasting, pneumatic, or hand methods. Excess soil is not anticipated. Soils would not be piled permanently within the ROW. Bare soil patches greater than about 2 or 3 feet square would be seeded with a BLM approved seed mix.

Structure Assembly and Erection – The structure components would be bundled together for each structure and delivered by truck to each structure site. Structures would then be assembled and lifted into place by crane. In areas where access is difficult, helicopters may be used to deliver the structure material and lift the structures into place. Generally, structures can be fully assembled within the ROW.

Conductor Stringing – Reels of conductor and shield wire would be delivered to the ROW and loaded onto tensioning machines. A pilot wire would be threaded through pulleys suspended from the structure insulators. The shield wire and conductor bundles would then be pulled into place without contacting the ground. Heavy vehicles would be used to pull the shield wire and conductor bundles into place. On straight sections of line, conductor stringing activity would be contained within the ROW. At turning points, additional temporary space would be required.

Cleanup – All construction sites, material staging areas, and access roads would be kept in an orderly condition throughout the construction of the transmission line. All refuse and trash would be removed and disposed of appropriately. There would be no intentional draining of oil from construction equipment on to the ground. All oil and chemical compounds would be restricted to approved containers and hauled to appropriate sites for disposal. There would be no open burning on BLM administered lands. If a need is determined for any open burning, the BLM would be consulted prior to any burning to obtain a permit as required.

Reclamation – Reclamation of disturbed lands would follow cleanup work. All disturbed surfaces would be restored to preconstruction conditions to the extent possible. Because no cut or fill would be required, minimal grading or smoothing would be all that is necessary. BLM approved native seed mixes would be used to revegetate disturbed federal lands along the ROW.

Seeding involves the mechanical or hand application of specific seed mixes appropriate for the site location and soil type. Seeding provides plant growth to stabilize the soil reducing the likelihood of erosion or sediment transport. As soon as practical, after the completion of construction activities, soil would be properly prepared for seeding. Preparing the seed bed includes loosening compacted soil to a depth of 4 inches and leveling the site to approximate natural topography, if needed.

The choice of seed mix would dictate application rates and methods (see **Error! Reference source not found.**, Table 3, and Table 4 for seed mixes). Seeding would always be accompanied by an additional Best Management Practice (BMP), such as mulching or tackifying, to protect the seed and soil from erosion during the germination and growth process. Seeded areas would be inspected by a PSCo contractor to ensure that the soil stabilization method (*e.g.* surface roughening, crimp mulch, etc.) was applied correctly and has not been compromised. The area would also be inspected for erosion and/or sediment deposition. Maintenance items would include re-grading and seeding bare or areas of thin vegetative growth and/or adding additional BMPs as appropriate. If seeding cannot be accomplished due to seasonal or other constraints, temporary stabilization, such as mulch and mulch tackifier would

be used. This temporary stabilization would be inspected and maintained until permanent seeding is allowed.

Table 2. Private Lands Seed Mix

| Common Name | Scientific Name | Percent of Mix | LB/Ac (PLS)* |
|------------------------|---|----------------|--------------|
| Indian ricegrass | <i>Achnatherum hymenoides</i> | 15 | 1.8 |
| Mountain brome | <i>Bromus marginatus</i> | 15 | 2.9 |
| Thickspike wheatgrass | <i>Elymus lanceolatus</i> | 15 | 1.7 |
| Needle-and-threadgrass | <i>Hesperostipa comata</i> | 13 | 1.8 |
| Prairie junegrass | <i>Koeleria macranthera</i> | 3 | 0.1 |
| Western wheatgrass | <i>Pascopyrum smithii</i> | 18 | 2.9 |
| Galetta grass | <i>Pleuraphis jamesii</i> | 5 | 0.6 |
| Muttongrass | <i>Poa fendleriana</i> | 10 | 0.3 |
| Sandberg bluegrass | <i>Poa secunda</i> ssp. <i>sandbergii</i> | 5 | 0.2 |
| Sand dropseed | <i>Sporobolus cryptandrus</i> | 1 | 0.06 |
| | Total | 100 | 12.36 |

* PLS = Pure Live Seed. Seeding Rate is for drill seeding, double for broadcast seeding.

Table 3. BLM Seed Mix, Greasewood Flats

| Common Name | Scientific Name | Variety | Percent of Mix | PLS lbs/ac* |
|--------------------------|-------------------------------|--|----------------|-------------|
| Western wheatgrass | <i>Pascopyrum smithii</i> | Arriba, Rosana | 20 | 3.2 |
| Bottlebrush squirreltail | <i>Elymus elymoides</i> | VNS | 15 | 1.8 |
| Sandburg bluegrass | <i>Poa secunda</i> | VNS | 15 | 0.4 |
| Alkali sacaton | <i>Sporobolus airoides</i> | VNS | 12 | 0.3 |
| Sand dropseed | <i>Sporobolus cryptandrus</i> | Uncompahgre Plateau | 13 | 0.08 |
| Shadscale | <i>Atriplex confertifolia</i> | VNS | 8 | 1 |
| 4-wing saltbush | <i>Atriplex canescens</i> | Source N of CO-NM line or above 5,000 ft** | 7 | 1.5 |
| Scarlet globemallow | <i>Sphaeralcea coccinea</i> | VNS | 10 | 0.6 |
| | | Total | 100 | 8.88 |

* Double seeding rate for broadcast seeding.

** Must be able to verify source.

Table 4. BLM Seed Mix, Pinon Juniper Woodlands and Oak Shrublands.

| Common Name | Scientific Name | Variety | Percent of Mix | PLS lbs/ac |
|--------------------------|--------------------------------|---|----------------|------------|
| Western wheatgrass | <i>Pascopyrum smithii</i> | Arriba, Rosana | 20 | 3.2 |
| Bluebunch wheatgrass | <i>Pseudoroegneria spicata</i> | Anatone, Goldar | 20 | 2.4 |
| Bottlebrush squirreltail | <i>Elymus elymoides</i> | VNS | 15 | 1.8 |
| Indian ricegrass | <i>Achnatherum hymenoides</i> | Paloma, Rimrock | 15 | 1.8 |
| Sandberg bluegrass | <i>Poa secunda</i> | Uncompahgre plateau | 10 | 0.4 |
| Sand dropseed | <i>Sporobolus cryptandrus</i> | VNS | 5 | 0.1 |
| 4-wing saltbush | <i>Atriplex canescens</i> | Source N of CO-NM line or above 5,000 ft* | 7 | 4 |
| Scarlet globemallow | <i>Sphaeralcea coccinea</i> | VNS | 8 | 0.3 |
| TOTAL | | | 100 | 14 |

* Double seeding rate for broadcast seeding.

** Must be able to verify seed source.

The reclamation procedures described above would be applied to all areas that result in disturbed vegetation greater than about 2 to 3 square feet. All damaged fences and gates would be repaired.

Design Features – Sensitive areas identified during natural and cultural resource surveys would require special design features to avoid and minimize impacts. Where the route crosses private lands, landowners would be encouraged to coordinate with PSCo to comply with the design features.

Design Features for Cultural Resources:

- Pole placement would be adjusted as needed to avoid directly impacting any eligible cultural resource sites. If avoidance is not possible, other minimization or mitigation measures may be necessary.
- For sites eligible or potentially eligible (needs data) to the National Register of Historic Places (NRHP) a 100-meter, no surface disturbance buffer around the site boundary would be applied.
- If circumstances arise where the 100-meter no surface disturbance buffer cannot be met (ex. other resource concerns, slope/topography, etc.) coordination with the BLM Field Office archaeologist would occur and an archaeological monitor employed by PSCo would be present to ensure no adverse effects to cultural resources.

Design Features for Paleontological Resources:

- Pole placement would be adjusted as needed to avoid directly impacting any paleontological resources within the Wasatch Formation. If avoidance is not possible, other minimization or mitigation measures may be necessary. During pole siting within the Wasatch Formation, a trained paleontological monitor employed by PSCo would be

present to ensure there are no adverse effects to paleontological resources.

Design Features for Soil Resources:

- Pole placement would be adjusted as possible to avoid directly impacting soils on BLM lands designated as no surface occupancy (NSO) with steep slopes (greater than 50 percent) and erosive soils and BLM lands designated as critical surface use (CSU) for slopes greater than 30 percent with erosive soils). If avoidance is not possible, other minimization or mitigation measures may be necessary, including use of helicopters for pole placement, limiting surface disturbance, and implementation of erosion control measures, in addition to revegetation of disturbed areas.

Design Features for Biological Resources:

- Rare plants Harrington beardtongue (*Penstemon harringtonii*)
 - Avoidance and minimization efforts for Harrington's beardtongue would generally follow the hierarchy below. The priority is to follow bullet 1 below; where that is not possible, minimization would progress down the bullet list:
 1. Avoid ground disturbance within a 100 foot buffer of all plants.
 2. Avoid direct ground disturbance on plants (no buffer).
 3. Site the transmission line alignment and structures to minimize impact to penstemon plants (less than 1-2 percent of the population within the project ROW).
 4. Confine disturbances as close to the outer edge of the plant population as possible to minimize fragmentation.
 - In addition, no broadcast or aerial herbicide treatments would be conducted within ½ mile (800 m) of Harrington's beardtongue populations. Spot spray application of herbicides would be the only approved method within ½ mile of Harrington's beardtongue. PSCo must have a Pesticide Use Proposal approved by BLM prior to undertaking any herbicide treatments within ½ mile.
 - Construction within identified Harrington's beardtongue habitat would occur during the active growing season (May 15-August 30) to ensure all rosettes have emerged and are visible. A biological monitor (botanist) would be employed by PSCo during construction to determine the final alignment to mitigate impacts to Harrington's beardtongue.

Design Features for Raptors and Migratory Birds

To protect sensitive nesting areas for raptors, the following seasonal and geographic restrictions would apply while nests are active (defined as occupied nest through fledging of young). A biological monitor would be employed by PSCo to evaluate nesting activities, if work within the active nesting season timeframes provided is desired. If the biological monitor finds no active nesting, coordination with BLM would occur to ensure agreement on the ability to use a helicopter within the timeframes and nest buffers provided below:

- For the golden eagle nest site identified on the existing 345kV line (NW ¼, NW ¼, Section 28, T6S R93W), no helicopter flight patterns would infringe on a buffer extending ½ mile horizontally and ¼ mile vertically from the nest (shown in the raptor survey report) during active nesting (generally March 1 to June 30; Kingery 1998).

Description of no action alternative

Under the No Action Alternative, the BLM would deny PSCo's proposed ROW application for the Rifle to Parachute 230 kV transmission line. No ROW would be granted to construct, operate, and maintain an electrical transmission line across federal lands.

Alternatives considered but not analyzed in detail

Several alternative transmission line routes were initially considered. Preliminary alignments for four transmission line routes were identified and presented to the public at three open houses. Alternative routes considered a variety of connections following existing transmission line corridors, pipeline ROW, and across lands with no utility corridor. Input from local residents, agencies, and information on high value sensitive resources were considered in the selection of alternatives for detailed consideration in this EA. Two of the originally considered alignments were eliminated because of adverse visual impacts to local residents and greater environmental impacts. Proximity to the Colorado River and associated wildlife (such as nesting/roosting activities, winter ungulate habitat, and other intensive habitat use in Cottonwood gallery forests), and proximity to increased density of natural gas infrastructure (including pipelines, well pads, compressor stations, and other facilities), are environmental impact rationale for eliminating routes on both the north and south side of the I-70 corridor. While each of the routes had similar overlapping segments, the two routes (Alternative A and B) described previously in the *Description of Action Alternatives* section, would have the least visual and environmental impact, thus the other two alternatives initially considered were eliminated from detailed discussion in the EA.

PLAN CONFORMANCE REVIEW

The Proposed Action is subject to, has been reviewed for, and is in conformance with (43 CFR §1610.5 and §2800, BLM 1617.3).

RELATIONSHIP TO STATUTES, REGULATIONS, OTHER PLANS

Name of Plan: Record of Decision and Glenwood Springs Resource Management Plan

Date Approved: January, 1984; revised in 1988; amended November 1991 – Oil and Gas Leasing and Development Final Supplemental Environmental Impact Statement; amended Nov. 1996 – Colorado Standards and Guidelines; amended in August 1997 – Castle Peak Travel Management Plan; amended in March 1999 – Oil and Gas Leasing and Development Final Supplemental Environmental Impact Statement; amended in November 1999 – Red Hill Plan Amendment; and amended in September 2002 – Fire Management Plan for Wildland Fire Management and Prescriptive Vegetation Treatment Guidance.

Decision Number/Page: Page 41, Utility and Communication Facility Management.

Decision Language: To respond, in a timely manner, to requests for utility and communication facility authorizations on public land while considering environmental, social, economic, and interagency concerns.

STANDARDS FOR PUBLIC LAND HEALTH

In January 1997, Colorado BLM approved the Standards for Public Land Health. Five standards were approved by the Colorado BLM in January 1994. These five Standards for Public Land Health include upland plant and animal communities, soils, water quality, riparian systems, and threatened and endangered species. Conditions needed to sustain public land health and relate to all uses of the public lands are described in the standards. Whether impacts resulting from the

Proposed Action or any alternatives being analyzed would maintain, improve, or deteriorate land health conditions relative to these resources must be addressed in the environmental analysis.

The Divide Creek Landscape and the Rifle-West Watershed Land Health Assessment (LHA) areas are applicable for this project. The 2009 Divide Creek LHA and the 2005 Rifle-West Watershed LHA were referenced for analysis of public land health standards (BLM 2009 and BLM 2005).

3. Affected Environment & Environmental Consequences

DIRECT AND INDIRECT EFFECTS, MITIGATION MEASURES

This section provides a description of the human and natural environmental resources that could be affected by the two Action Alternatives and the No Action alternative. In addition, the section presents comparative analyses of the direct and indirect environmental consequences stemming from the implementation of the various actions.

The exact route and pole placement have not been designed. However, for purposes of the impact analysis and comparison of alternatives, potential alignment and pole placement was modeling using PSCo’s most accurate estimate. Pole placement was estimated using PSCo’s intention of mirroring the existing towers (i.e., placing new poles next to existing poles or towers where possible), and using the existing 230kV line to generate approximate pole spacing. Because some of the pole locations would only be accessible by foot and by helicopter, the overall impact acreage described in the EA for each resource area is an overestimate of anticipated actual impacts.

A variety of laws, regulations, and policy directives mandate the evaluation of the effects of a proposed action and alternative(s) on certain environmental elements. Not all programs, resources or uses are present in the area, or if they are present, may not be affected by the proposed action and alternatives (Table 5). Based on the results of internal and external scoping, BLM interdisciplinary team identified key issues for evaluation in the EA. Only those resource elements that are present and potentially affected are described and brought forth for detailed analysis.

Table 5. Resources Potentially Affected by the Alternative Actions.

| Programs, Resources, and Uses (Including Supplemental Authorities) | Potentially Affected? | |
|--|-----------------------|----|
| | Yes | No |
| Access and Transportation | X | |
| Air Quality | X | |
| Areas of Critical Environmental Concern | | X |
| Cadastral Survey | | X |
| Cultural Resources | X | |
| Native American Religious Concerns | X | |
| Environmental Justice | X | |
| Farmlands, Prime or Unique | | X |

| | | |
|---|---|---|
| Fire/Fuels Management | X | |
| Floodplains | X | |
| Forests | | X |
| Geology and Minerals | | X |
| Health and Safety | X | |
| Law Enforcement | | X |
| Livestock Grazing Management | X | |
| Noise and Interference | X | |
| Paleontology | X | |
| Plants: Vegetation, Wetlands and Riparian Zones | X | |
| Plants: Invasive, Non-native Species (Noxious Weeds) | X | |
| Plants: Sensitive, Threatened, or Endangered | X | |
| Livestock Grazing Management | X | |
| Realty Authorizations | X | |
| Recreation | X | |
| Social and/or Economics Factors | X | |
| Soils | X | |
| Visual Resources | X | |
| Wastes, Hazardous or Solid | X | |
| Water Quality, Surface and Ground | | X |
| Water Rights | | X |
| Wild and Scenic Rivers | | X |
| Wilderness/WSAs/Wilderness Characteristics | | X |
| Wildlife: Aquatic / Fisheries | X | |
| Wildlife: Migratory Birds | X | |
| Wildlife: Sensitive, Threatened, and Endangered Species | X | |
| Wildlife: Terrestrial | X | |

Access and Transportation

Affected Environment

The BLM manages access and transportation for a variety of motorized and non-motorized activities including recreation, livestock and wildlife management, ROWs for oil and gas exploration, transmission lines, and private lands. The proposed project area is located in an area with an Open Area Designation allowing for intensive off-road vehicle (ORV) travel. Primary roads in the project area include Garfield County roads, BLM roads, oil and gas exploration spur roads connecting well pads, and private roads. Road maintenance is generally the responsibility of the land owner or leasee in the case of oil and gas operations. BLM typically uses road graders to re-establish the surface of a road to improve traffic speed and maneuverability. Dozers are used less frequently on roads to re-establish drainage and repair minor road damage or stream crossings.

Environmental Effects

No Action Alternative

There would be no change to the existing access and transportation system under the No Action alternative. Routine road maintenance would continue as it has in the past. New road development on BLM land would be subject review and permitting requirements.

Effects Common to Action Alternatives

Installation of the transmission line structures and the transmission line for both action alternatives would require access along the transmission line corridor. It is anticipated that the majority of the proposed power line would be accessible from the current network of roads on BLM and private lands. Minor road improvements to existing roads may be necessary and damage to existing roads would be repaired following construction. Impacts to existing access roads from transport of equipment and materials required for transmission line installation are expected to be minor, because of the limited anticipated use over a short time period and mitigation measures to restore any damaged roads. Stringing and pulling electrical conduit between structures would require off-road vehicle travel. No roads would be constructed for this work. Travel would only be conducted when the ground is dry and slopes are not steep. Ground disturbances from off-road activities would be restored and revegetated as needed.

Helicopters would be used to install transmission line structures where no existing roads are available. Two potential “fly yards” on private land have been identified in locations that avoid sensitive areas. Helicopters would deliver workers and materials from staging areas to the construction site. Approximately 16 transmission structures may need to be installed by helicopter on the portion of the transmission line route that is common to both alternatives. Vegetation clearing as needed around structures accessed by helicopter would be conducted by hand. Helicopter access may be required during construction, as well as for future maintenance needs.

Alternative A (Proposed Action)

Principal roads that would be used to access the transmission line route include Garfield County Roads 309, 301, 351, 329, 325, Beaver Creek Road, Mustang Mesa Trail, Quicksilver Way, and numerous BLM roads and oil and gas exploration spur roads. Approximately 22 transmission line structure sites may need to be accessed by helicopter in addition to the 16 sites on the common route.

Alternative B

Access roads expected to be used for construction of the transmission line under Alternative B include Garfield County Roads 309, 301, 310, 351, 329, 325, 319, Battlement Creek Road, Grass Mesa Road, and BLM roads and oil and gas roads. Approximately 27 transmission line structure sites may need to be accessed by helicopter in addition to the 16 sites on the common route.

Mitigation

The following design feature would be used to mitigate impacts to existing roads and avoid the need for new roads:

- Existing access roads used for installation of the transmission line and structures would be maintained and restored to preconstruction conditions following completion of work.

- Public notice and signs would be used for any road closures or detours required during construction.
- Any existing routes that are improved to install or maintain the power line that are not a part of the designated route system would be blocked to prevent public access. The routes would need to be blocked using gates, boulders or other approved structures.
- Helicopters would be used for transmission line structure installation where no existing access routes are present.

Air Quality

Affected Environment

Air quality in the project area is typical of undeveloped regions in the western United States. The closest Class I airsheds are the Flat Tops Wilderness Area located approximately 40 miles northeast and the Maroon Bells located approximately 50 miles to the southeast (BLM 2011a).

Fugitive dust from the desert areas near the proposed project area, unpaved roads and streets, and seasonal sanding for winter travel; motor vehicles; oil and gas operations; and wildfires and wood-burning stove emissions are the primary sources of air pollutants in the region. Throughout the western U. S., seasonal wildfires may also contribute to air pollutants and regional haze. Except for high short-term increases in PM10 levels (primarily windblown dust), ozone, and carbon monoxide, the ambient pollutant levels are usually near or below measurable limits. Elevated concentrations may be the result of long-range transport from urban areas, subsidence of stratospheric ozone or photochemical reactions with natural hydrocarbons.

The EPA General Conformity regulations require that an analysis (as well as a possible formal conformity determination) be performed for federally sponsored or funded actions in nonattainment areas and in designated maintenance areas when the total direct and indirect net air pollutant emissions (or their precursors) exceed specified levels. The closest non-attainment or maintenance area is the Town of Aspen, which is over 50 miles southeast of the proposed project area (BLM 2011b).

Environmental Effects

No Action Alternative

Under the No Action alternative there would be no impacts to air quality from construction related activities. Compressors used for oil and gas development would most likely continue to use natural gas instead of electricity for operation, and new compression projects would not have the option to use electricity for operation. Continued and new use of natural gas would result in increased emissions of volatile organic carbons, nitrous oxide, and other hazardous air pollutants at compressor stations. These emissions would have a minor effect on local air quality with use of catalysts on engine exhaust and other emission controls.

Effects Common to Action Alternatives

Increased vehicle traffic, equipment operation, surface disturbance, and helicopter use would temporarily increase vehicle emissions and fugitive dust (PM10) production during construction. Elevated particulate matter and emissions during construction activities would have localized short-term effects on air quality. Hydrocarbons, nitrogen oxide, and sulfur dioxide vehicle

emissions would be rapidly dissipated and would not exceed air quality standards. Visibility, deposition, and other air quality-related values in the region would not be appreciably affected. Air quality would return to preconstruction levels following completion of construction activities. Operation and maintenance of the transmission line would not result in a long-term increase in traffic or vehicle emissions. Regional and local air quality would not be more than negligibly affected by short-term increase in emissions. Federal and state air quality standards would be met during and following project implementation. There would be no impact to designated wilderness air quality or need for a conformity determination because emissions would be short-term and negligible and there are no Class I airsheds or nonattainment areas within 50 miles. Maintenance activities over the life of the project would have short-term negligible effects on air quality from periodic access by vehicles, equipment, and helicopters. In the long term, providing electricity as an alternative to natural gas for use in compression and other oil and gas operations could result in a minor local, improvement to air quality.

Alternative A (Proposed Action) and Alternative B

Temporary and long-term effects to air quality from construction and operation under Alternative A and B would be similar and are not discussed separately.

Mitigation

To minimize fugitive dust production, a BLM approved dust suppressant would be used along access roads as needed during construction activities. Construction equipment and vehicles would not be left idling for excessive periods.

Cultural Resources

Cultural resources include sites, buildings, structures, objects, districts, or areas of traditional religious and cultural importance. Historic properties are those cultural resources that are either included on or have been determined to be eligible for inclusion on the National Register of Historic Places (NRHP). Traditional cultural properties include “traditions, beliefs, practices, lifeways, arts, crafts, and social institutions of any community, be it an Indian tribe, a local ethnic group, or the people of the nation as a whole” (National Park Service Bulletin No. 38). Examples of traditional cultural properties include, but are not limited to, locations where Native Americans have performed ceremonies or have gathered resources; or rural community land use patterns, such as farming and ranching.

The BLM and the State of Colorado (Office of Archaeology and Historic Preservation [OAHP]) maintain databases of cultural resources found during previous surveys. Known recorded cultural resources within one mile of the project area (area of potential effect [APE]) were identified by conducting a Class I file and literature review with the OAHP and with the BLM Colorado River Valley Field Office (CRVFO). Cultural resource field surveys were conducted to locate unrecorded cultural resources on all unsurveyed public lands, along with private lands where permission was granted by the landowner (ERO 2013). Private lands are included in the cultural resource survey because the project encompasses both federal and private lands. Implementation of the project would require compliance with Section 106 of the National Historic Preservation Act (NHPA) for all affected properties, private and federal.

Cultural resources are evaluated, in part, for their potential to provide information important to the interpretation of prehistory or history. Therefore, it is important to provide a cultural-historical context from which to evaluate significance. Research, survey, and analysis were completed to recognize historic properties, spot possible impacts to historic properties, and identify measures to avoid impacts as part of compliance with Section 106 of the NHPA.

Affected Environment

The temporal framework for the northern Colorado River Basin is divided into five major prehistoric and historic eras: Paleoindian (13400 to 7500 B.P.); Archaic (ca. 7500 to 2000 B.P.); Late Prehistoric (2400 to 700 B.P.); Protohistoric (700 to 200 B.P.); and Historic (200 to 50 B.P.) (Reed and Metcalf 1999). Each of the prehistoric eras is marked by specific settlement strategies and material culture. For example, during the Paleoindian era, humans were nomadic hunter-gatherers who used highly stylized spear points of which the famous Clovis and Folsom periods are most emblematic; during the following Archaic era, humans survived by hunting and plant gathering and processing, which is reflected in the variety of projectile point styles and the development of “ground stone” technology. By the Late Prehistoric era, humans began to settle into distinct territories and had adopted bow and arrow and ceramic technologies; the Protohistoric era marks the transitional period of Euroamerican settlement and the first interaction with modern tribes. For Native Americans, it was a period of profound socio-cultural change that included displacement or removal from traditional tribal areas and the reduction of population through European disease.

Euroamerican history in the Colorado River Valley began with government survey expeditions and fur trappers in the early 1800s. Once transportation corridors were extended into the region, first by wagon road and culminating with the arrival of the railroad by the 1880s, industries emerged that still define the region. The single most important historical industry in the region is farming and ranching, which continues to be present and viable economically. Related themes important to the consideration of significance for the historic era include the development of transportation systems; water conveyance systems; electrical transmission; and the farming and ranching landscape.

Results of the file search and field survey indicate several types of cultural resources are present in the project area (Table 6). Cultural resources (historic properties) eligible for the NRHP include prehistoric archeological sites, transmission line segments, historic structures, and multicomponent sites that were occupied during prehistoric and historic periods. Prehistoric archaeological sites are the most prevalent.

A historic property’s visual context contributes to its integrity, significance, and eligibility for listing on the NRHP. The current visual quality within about 2 miles of the project corridor is influenced by roads, existing powerlines, oil and gas drilling and operations, the I-70 corridor, and other industrial development.

Table 6. Historic properties eligible or potentially eligible for listing on the NRHP within the project area.

| Cultural Resource Type | Common to Alternative A and B | | Alternative A | | Alternative B | |
|------------------------|-------------------------------|----------|---------------|----------|---------------|----------|
| | Total | Eligible | Total | Eligible | Total | Eligible |
| Prehistoric | 12 | 3 | 11 | 4 | 5 | 2 |

| Cultural Resource Type | Common to Alternative A and B | | Alternative A | | Alternative B | |
|---|-------------------------------|----------|---------------|----------|---------------|----------|
| | Total | Eligible | Total | Eligible | Total | Eligible |
| Archaeological | | | | | | |
| Historic Archaeological | 1 | 0 | 3 | 1 | 1 | 0 |
| Transmission Line Segments | 2 | 2 | 0 | 0 | 0 | 0 |
| Centennial Farm | 0 | 0 | 0 | 0 | 1 | 1 |
| Historic Railroad Segment | 1 | 1 | | | | |
| Historic Road | 2 | 0 | 2 | 0 | 0 | 0 |
| Historic Ditch Segments | 0 | 0 | 2 | 0 | 0 | 0 |
| Historic Rock Art | 1 | 0 | 0 | 0 | 0 | 0 |
| Multicomponent (Prehistoric and Historic) | 0 | 0 | 1 | 1 | 2 | 2 |
| Totals | 19 | 6 | 19 | 4 | 9 | 5 |

Source: (ERO 2013)

Environmental Effects

No Action Alternative

The No Action alternative would have no effect on existing cultural resources. There would be no new visual impacts.

Effects Common to Action Alternatives

Construction activities related to installation of transmission line structures and conductors could result in direct impacts to historic properties, as well as possible indirect adverse visual impacts associated with the proximity of the transmission line to the historic property. Of the 47 cultural resources located within the transmission line routes for both Alternative A and B, 15 are potential historic properties; 8 prehistoric archaeological sites (5GF1231, 5GF1232, 5GF1233, 5GF3755, 5GF3904/5GF133, 5GF4060, 5GF4176, and 5GF4973), 1 prehistoric open camp/historic fence (5GF1427), one corral (5GF3462), 1 prehistoric/protohistoric archaeological site (5GF3415), 1 Centennial Farm (5GF3373), 2 transmission line segments (5GF4554.6 and 5GF.4554.9), and 1 railroad segment (5GF4620.4). For federal undertakings, only historic properties, or those cultural resources that are eligible or potentially eligible for listing on the NRHP, are considered for environmental effects. Six of these sites, including three prehistoric archaeological sites (5GF1233, 5GF3755, and 5GF4060), two transmission line segments (5GF.4554.6 and 5GF.4554.9), and one railroad segment (5GF4620.4) potentially eligible for the NRHP are located within the transmission line route common to both alternatives. No direct adverse impact to historic properties is anticipated for the transmission line route common to both alternatives because the transmission line or structure placement would be adjusted to avoid impacts during final design.

A 2-mile viewshed analysis determined alternative new transmission lines would be visible from nine potential historic properties, including two prehistoric open architectural sites (5GF2914 and 5GF3415), agricultural complexes (5GF356, 5GF3373, and 5GF4116), dwellings (5GF242 and 5GF786), and a school house (5GF135). The new transmission line segment common to both Alternative A and B would be visible from seven historic and prehistoric

structures/complexes (5GF135, 5GF356, 5GF786, 5GF2914, 5GF3373, 5GF3415, and 5GF4116). Specific cultural resources potentially affected by the corridor common to both action alternatives include the Battlement Mesa Schoolhouse (5GF135); the Clem Ranch (5GF3373) and the Potter Family Ranch (5GF4116), both Centennial Farms; an agricultural complex with unknown characteristics (5GF356); one historic residence (5GF786); and two prehistoric open architectural sites (5GF2914 and 5GF3415), all of which are about one mile or greater from the proposed transmission line route common to both alternatives. Adverse visual impacts to historic properties from the transmission line common to both alternatives would be minimized because the new line would be located within existing transmission line corridors and the new transmission line would be consistent with the existing visual setting. Because the transmission line would not be readily visible from these historic properties and the visual context in which these resources are situated includes existing transmission lines and industrial development, the introduction of a new feature would not diminish the integrity of the historic properties or affect their eligibility for listing on the NRHP.

Alternative A (Proposed Action)

Within the Proposed Action transmission line APE are five potential historic properties including one historic corral (5GF3462) (officially needs data) and two prehistoric archaeological sites (5GF1231 (field eligible) and 5GF1232 (officially eligible)) (Table 6). Direct impacts to historic properties for Alternative A would be avoided during final design by placement of structures away from known resources. Based on the 2-mile viewshed analysis, the Alternative A transmission line would be visible from eight potential historic properties, including two Centennial Farms, (Clem Ranch (5GF3373) and the Potter Family Ranch (5GF4116)); two historic residences (5GF786 and 5GF422); a school house (5GF135); an agricultural complex (5GF356); and two prehistoric architectural sites (5GF2914 and 5GF3415). Adverse visual impacts to historic properties from the transmission line of Alternative A would be minimized because the new line would be located within existing transmission line corridors and the new transmission line would be consistent with the existing visual setting. No additional cultural resources would be visually impacted by the Proposed Action.

Alternative B

Within the Alternative B transmission line APE are five potential historic properties including one multicomponent archaeological site (5GF3409/5GF133) (officially eligible), one prehistoric archaeological site (5GF3415, officially eligible), and Clem Ranch (5GF3373), which has not been evaluated for inclusion on the NRHP (Table 6). Direct impacts to historic properties for Alternative B would be avoided during final design by placement of structures away from known resources. Based on the 2-mile viewshed analysis, the Alternative B transmission line would be visible from eight potential historic properties, including two Centennial Farms (Clem Ranch: 5GF3373 and the Potter Family Ranch: 5GF4116); two historic residences (5GF 242 and 5GF786); a school house (5GF135); an agricultural complex (5GF356); and two prehistoric architectural sites (5GF2914 and 5GF3415). Alternative B would cross directly over Clem Ranch and may require placement of structures on the property. There are no existing transmission lines present for the segment of Alternative B that crosses Clem Ranch; however, existing visual disturbance in the vicinity of this historic ranch includes roads, oil and gas drilling and operations, the I-70 corridor, and other industrial development. Although the eligibility of Clem Ranch for the NRHP has not been determined, the proximity of a new transmission line across the property may have a visual impact to the property and impact the historic integrity of this resource. In addition, Alternative B would be 100 feet away from prehistoric site 5GF3415

and adjacent to prehistoric site 5GF2914. There are no existing transmission lines along the segment of Alternative B that is near these resources, but existing visual disturbance in the vicinity of both resources includes roads, oil and gas drilling and operations, and other industrial development. Therefore, the Alternative B transmission line may compromise the integrity of both resources. For other historic properties within 2 miles of the Alternative B alignment, the introduction of a new feature would not diminish their integrity or affect their eligibility for listing on the NRHP.

Mitigation

In consultation with the State Historic Preservation Officer (SHPO), a determination of *no adverse effect* was made in May 2014 for this project. This determination was determined based on a mitigation plan with a Memorandum of Agreement (MOA) signed by SHPO, BLM and PSCo. The mitigation plan was drafted to address concerns for areas of private land that were not inventoried for cultural resources based on private land owner denial.

Where feasible, all historic properties would be avoided by ground disturbing actions, using existing access roads and siting structures to avoid adverse effects. Because of the flexibility in placing the transmission line structures, it is anticipated that all eligible historic and prehistoric sites can be avoided during construction. The visual impact of a new transmission line also would be minimized by use of non-reflective steel poles for structures to reduce visibility.

Although the preferred mitigation measure is avoidance, for those historic properties that cannot be avoided a treatment plan would be written and included under a memorandum of agreement (MOA) that would be developed between the BLM, SHPO and participating signatories, if any, that could include interested Native American tribes if the property is archaeological in nature. The Advisory Council on Historic Preservation would be invited to participate in the development of the MOA.

Any unexpected discoveries of human remains on federal or trust lands would be mitigated under provisions of the Native American Graves Protection and Repatriation Act. In the event of an inadvertent discovery of human remains on non-federal lands, Colorado Statute 18-4-509: (Colorado's Historical, Prehistorical, and Archaeological Resources Act) 24-80, Part 13 would be followed.

Native American Religious Concerns

Affected Environment

American Indian religious concerns are legislatively considered under the American Indian Religious Freedom Act of 1978 (PL 95-341), the Native American Graves Environmental Assessment Protection and Repatriation Act of 1990 (PL 101-601), and Executive Order 13007 (1996; Indian Sacred Sites). These require, in concert with other provisions such as those found in the NHPA and Archaeological Resources Protection Act (ARPA), that the federal government carefully and proactively take into consideration traditional and religious Native American culture and life. This ensures, to the degree possible, that access to sacred sites, the treatment of human remains, the possession of sacred items, the conduct of traditional religious practices, and the preservation of important cultural properties are considered and not unduly infringed upon.

In some cases, these concerns are directly related to “historic properties” and “archaeological resources”. In other cases, elements of the landscape without archaeological or other human material remains may be involved. Identification of these concerns is normally completed during the land use planning efforts, reference to existing studies, or via direct consultation.

The Ute have a generalized concept of spiritual significance that is not easily transferred to Euro-American models or definitions. The BLM recognizes that the Ute have identified sites that are of concern because of their association with Ute occupation of the area as part of their traditional lands. The cultural resource evaluation of this project, describing known cultural resources and their condition, was sent to the Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and the Uinta and Ouray Agency Ute Indian Tribe. The letter, sent on December 18, 2013, requested the tribes to identify issues and areas of concern within the project area. No comments were received at that time. Additional consultation for the project was conducted on May 1, 2014, more specifically regarding the BLM/SHPO/PSCo MOA and mitigation. Comments were received at this time and incorporated into the analysis.

Environmental Effects

No Action Alternative

Under the No Action alternative, no cultural resources or Native American sites of religious concern would be impacted. No additional visual impacts would occur to cultural resources or Native American sites of religious concern.

Effects Common to Action Alternatives

Of the cultural resources identified during this project inventory, 10 cultural resources are prehistoric and include 8 prehistoric archaeological sites (5GF1231, 5GF1232, 5GF1233, 5GF3755, 5GF3904/5GF133, 5GF4060, 5GF4176, and 5GF4973), 1 prehistoric/protohistoric archaeological site (5GF3415), and 1 prehistoric open camp/historic fence (5GF1427). Of these cultural resources three prehistoric archaeological sites (5GF1233, 5GF3755, and 5GF4060) are eligible for the NRHP and are located within the transmission line route common to both alternatives. Direct impacts to cultural resources will be avoided through minimum 100-meter buffers around cultural resources and through project design criteria.

A 2-mile viewshed analysis determined alternative new transmission lines would be visible from two prehistoric open architectural sites (5GF2914 and 5GF3415) common to both alternatives. Although all direct impacts to cultural resources will be avoided, indirect visual impacts still have the potential to impact the visual setting of cultural resources sensitive to Native Americans by interfering with site setting and view-scape.

Alternative A (Proposed Action)

Within the Proposed Action transmission line APE there are four prehistoric archaeological sites (5GF1231, 5GF1232, 5GF3428, and 5GF3429). Of these four prehistoric cultural resources 2 are eligible for the NRHP. Direct impacts to cultural resources will be avoided through minimum 100-meter buffers around cultural resources and through project design criteria.

Based on the 2-mile viewshed analysis, the Alternative A transmission line would be visible from two prehistoric architectural sites (5GF2914 and 5GF3415) same as the Common to Action Alternative. Adverse visual impacts to historic properties from the transmission line of

Alternative A may be minimized because the new line would be located within existing transmission line corridors but indirect visual impacts still have the potential to impact the visual setting of cultural resources sensitive to Native Americans by interfering with site setting and view-scape.

Alternative B

Within the Alternative B transmission line APE are three prehistoric archaeological sites (5GF3415, 5GF3423, and 5GF3448) of which one (5GF3415) is eligible for the NRHP. Direct impacts to cultural resources will be avoided through minimum 100-meter buffers around cultural resources and through project design criteria.

A 2-mile viewshed analysis determined alternative new transmission lines would be visible from two prehistoric open architectural sites (5GF2914 and 5GF3415) common to both alternatives. This alternative is much closer in proximity to these two cultural resources than Alternative A and would have a greater visual impact. Although all direct impacts to cultural resources will be avoided, indirect visual impacts still have the potential to impact the visual setting of cultural resources sensitive to Native Americans by interfering with site setting and view-scape.

Mitigation

Based on tribal consultation, a request to include additional research of specific cultural resources was expressed by Tribal members and will be included in the mitigation of this project through the MOA.

Environmental Justice

Executive Order 12898, signed on February 11, 1994, directs federal agencies to make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high adverse human health or environmental effects of its activities on minority and low-income populations. Environmental justice involves fair treatment, which means that no group of people, including a racial, ethnic, or socio-economic group, should bear a disproportionate share of negative environmental consequences resulting from a federal action.

Affected Environment

Review of 2010 data from US Census Bureau indicates the median annual income of Garfield County averages \$63,929, which is slightly higher than the overall median annual income for the state of Colorado, but is neither a wealthy or impoverished county. U.S. Census Bureau data from 2010 shows that minorities comprise less than 12 percent of the population of Garfield County (Census 2010).

Environmental Effects

No Action Alternative:

No impacts to minority or low-income populations would occur under the No Action alternative.

Effects Common to Action Alternatives

The Proposed Action would not result in disproportionately adverse human health impacts or environmental effects on minority or low-income populations. The effects of either action

alternative would not be disproportionate to those experienced by the general population. The anticipated environmental and socioeconomic effects would be spread across all races, ages, and income levels.

Alternative A (Proposed Action) and Alternative B

There would be no difference in environmental justice effects under either Alternative A or B.

Mitigation

No mitigation is required because there would be no environmental justice effects.

Fire/Fuels Management

Affected Environment

Garfield County has developed a Community Wildfire Protection Plan (CWPP) to plan and manage wildfire risks and hazards, and devise ways to protect human welfare and important economic and ecological values (Walsh 2012). The CWPP, which includes BLM and private lands within the project area, provides a comprehensive assessment of current conditions and fire risk and fuel management activities. Most of the following discussion was based on information in the CWPP and data generated by the Colorado State Forest Service.

The project area supports a mixture of grass, shrub, and forest vegetation types that have adapted historically to a range of low and high intensity fires. Pinion-juniper, oak woodland, and sagebrush communities present in the project area have the greatest potential for carrying wildfires. The semi-arid and hot climate in the project area, frequent gusty winds, lightning, steep terrain, and other site specific conditions contribute to the potential for wildfires. A number of wildfires have occurred in or near the project area since 1981 including the Battlement Mesa Fire east of Parachute in 1987 (Walsh 2012). Fire suppression activity over the past 100 years has increased the potential for high-intensity wildfires by increasing the density of vegetation and fuel accumulation.

The Colorado State Forest Service (CSFS) developed a Wildfire Susceptibility Index (WFSI) for Garfield County to provide a measure of wildfire risk. The WFSI is defined as the probability of wildfire occurrence and its predicted rate of spread once an ignition occurs. Factors used to develop the WFSI included topography, historic weather, historic wildfire, surface fuels, and vegetation canopy. Wildfire susceptibility within the project area ranges from low to moderate (Walsh 2012). The CSFS has also developed a Wildfire Intensity Index (WFII) as a measure for the potential for high-intensity wildfire occurrence as defined by flame length and crown fire. The WFII is based on fire behavior computer simulations using similar data as for the WFSI. The WFII for the project area is primarily rated as moderate, with some areas rated as low (Walsh 2012).

Areas of wildland-urban interface (WUI) are of concern where man-made improvements are built close to, or within, natural terrain and flammable vegetation, and where high potential for wildland fire exists (CSFS 2013). Most of the project area between Rifle and Parachute is located within the boundaries of a WUI. The Rifle WUI area has an overall high risk rating for wildfire (Walsh 2012).

Fire management on BLM lands is governed by the Federal Wildland Fire Management Policy, which directs federal agencies to achieve a balance between suppression to protect life, property, and resources, and fire use to regulate fuels and maintain healthy ecosystems. In addition, each BLM field office has a Fire Management Plan that becomes the on-the-ground, operational framework that implements national direction for wildfire suppression, wildland fire use, fuels treatment, emergency stabilization and rehabilitation, and community assistance/protection programs. Currently local fire protection districts, the BLM, U.S. Forest Service, and other entities each work to reduce hazardous fuels throughout the County. Management actions include a variety of fuels treatment, such as establishing defensible space, fuelbreaks, prescribed fires, vegetation mowing along roads, and vegetation management. BLM currently has several proposed fuel projects near the project area and Colorado Parks and Wildlife, through its Habitat Partnership Program, has several proposed projects to increase forage availability by vegetation management and thus, lower wildfire risk and reduce conflicts between big game and wildlife.

Environmental Effects

No Action Alternative

Under the No Action alternative no construction activity would take place and the risk of fire would not change.

Effects Common to Action Alternatives

Construction activities associated with installation of the transmission lines and structures would result in a short-term increase in the potential for man-made fires associated with construction activities, smoking, equipment operation, and vehicles parking over dry grass. Best management measures as described below in the *Mitigation* section would be used during construction to reduce the risk of inadvertent wildfire. Woody vegetation clearing around transmission line structures and clearing any tall trees under the line would be used to maintain the required clear zone of 30 feet, which also would serve to reduce the risk of fire. Vegetation clearing under the transmission line is expected to be minimal because most of the pinion-juniper and other woodland vegetation types are below the minimum required safe distance between electrical lines and vegetation. Following construction, the operation of the transmission line would not substantially increase the risk of fire or affect the rate, duration, frequency of future fires. PSCo would continue routine vegetation clearing near facilities and ongoing line maintenance throughout the life of the project.

Alternative A (Proposed Action)

The transmission line corridor under Alternative A would be located primarily within areas rated with a low to moderate WFSI (Table 7). WFII mapping indicates that most of the transmission line would be located within lands with a moderate rating and a very small portions would occur in areas rated as high or very high (Table 8). The transmission line would be located within the WUI.

Table 7. Wildfire Susceptibility Ratings along Alternative Transmission Line Routes.

| Wildfire Susceptibility Index | Alternative A (acres) | Alternative B (acres) | Shared Corridor (acres) |
|--------------------------------------|----------------------------------|----------------------------------|------------------------------------|
| Not rated | 0 | 0 | 0 |
| Low | 38 | 40 | 21 |

| Wildfire Susceptibility Index | Alternative A (acres) | Alternative B (acres) | Shared Corridor (acres) |
|-------------------------------|-----------------------|-----------------------|-------------------------|
| Moderate | 154 | 162 | 157 |
| High | 1 | 2 | 3 |
| Very High | 0 | 0 | 0 |

Note: Acres within 150-foot corridor.

Table 8. Wildfire Intensity Index Ratings along Alternative Transmission Line Routes.

| Wildfire Intensity Index | Alternative A (acres) | Alternative B (acres) | Shared Corridor (acres) |
|--------------------------|-----------------------|-----------------------|-------------------------|
| Not rated | 4 | 13 | 6 |
| Low | 111 | 88 | 101 |
| Moderate | 67 | 100 | 71 |
| High | 11 | 4 | 3 |
| Very High | 0 | 0 | 0 |

Note: Acres within 150-foot corridor.

Alternative B

The transmission line corridor under Alternative B would be located primarily within areas rated with a low to moderate WFSI (Table 7). The majority of the transmission line would be located within areas with a moderate WFII (Table 8). The transmission line would be located within the WUI.

Mitigation

All construction vehicles would be equipped with fire extinguishers and shovels for fighting small fires, if necessary. Construction crews would be equipped and trained to fight small fires. Spark arresters would be required for equipment generating sparks, including ATVs and chainsaws. Smoking would be allowed during construction activities only in designated safe-smoking areas. Common sense practices regarding heat/spark sources, particularly in dry conditions, would be followed. Avoiding parking hot vehicles on dry shrubs and other logical avoidance practices would be followed. Construction crews would have access to telephones to contact the necessary fire officials if a fire occurs, or if one were observed in the project vicinity. Minor brush clearing for pole construction would provide a minor benefit by removing fuel.

Floodplains

Affected Environment

Floodplain maps are not available for much of the project area; however, a 100-year floodplain is mapped along the Colorado River in the project area by the Federal Emergency Management Agency (FEMA) (Parachute area FEMA Map [FEMA 1991]) and the U.S. Army Corps of Engineers. No floodplain mapping is available for the remainder of the project area, but streams are generally small and easily spanned by a transmission line.

Environmental Effects

No Action Alternative

There would be no impacts to the 100-year floodplain of the Colorado River or other streams under the No Action alternative.

Effects Common to Action Alternatives

The transmission line route under both action alternatives would cross the Colorado River floodplain near Parachute. If feasible, no transmission line structures would be located in the 100-year floodplain of the Colorado River. If it is not possible to span the floodplain, then structures would be located near the outside of the floodplain. It is unlikely more than one to two structures would be placed in the floodplain. There would be no significant adverse effects on natural or beneficial floodplain values with the addition of several poles within the floodplain. The existing 345 kV transmission line has several tower structures positioned in or near the floodplain of the Colorado River. Poles placed in the floodplain would not restrict the ability of the floodplain to convey and store floodwaters, and they would not contribute to flooding during or after construction. No impact to the floodplain of other streams in the project area would occur because no structures would be placed within the floodplain.

Alternative A (Proposed Action) and Alternative B

The impacts of both alternatives on floodplains would be the same because both alternatives share a common alignment across the Colorado River at the west end of the project.

Mitigation

If transmission line structures must be placed in the Colorado River floodplain, poles would be placed as far from the active channel as possible. Structure placement in wetlands or below the Ordinary High Water Mark would be avoided if possible and appropriate U.S. Army Corps of Engineer approvals secured prior to construction if impacts are unavoidable. Debris protection measures would be placed around poles to prevent flood damage. Regular inspection of the poles in the floodplain by PSCo would be conducted to remove debris and ensure the integrity of the structures.

Health and Safety

Affected Environment

Transmission lines and other devices that conduct electricity generate electric and magnetic fields (EMF). Electric fields are created by voltage transmission and the greater the voltage the stronger the electric field. Likewise, the higher the current, the greater the magnetic field. Exposure to electric and magnetic fields diminish with distance from the source. Under transmission lines, EMF drop substantially with distance. The electric field at the centerline of a 230-kV transmission line is 1.0 kilivolts per meter (kV/m) and diminishes to 0.07 kV/m at a distance of 100 feet (PSCo undated). The magnetic field at the centerline of a 230-kV transmission lines is 57.5 milliGauss (mG) and decreases to 7.1 mG at a distance of 100 feet. As a basis of comparison a microwave oven has a magnetic field of 300 mG at distance of 6 inches and 10 mG at a distance of 2 feet. Although there have been concerns that exposure to EMF could impact health, currently there is no conclusive evidence of harmful effects (Xcel 2012).

Environmental Effects

No Action Alternative

There would be no change to health and safety for the public or BLM staff under the No Action alternative.

Effects Common to Action Alternatives

Construction of the transmission line involves the risk of accidents and injury for workers using heavy equipment and machinery in remote locations and often in steep terrain. Because the majority of construction activity is located in rural areas away from residences, schools, businesses, health and safety concerns to the public during construction are negligible. PSCo contractors would adhere to standard safety protocols to minimize the potential for accidents at construction sites and on roads used to access the project area.

Operation of the transmission line would require periodic maintenance, which may require actions similar to those used during construction. Exposure to EMF would be greatest for workers performing maintenance, but exposure duration would be short and there are no known health impacts. Exposure to EMF by residents, visitors, or travelers during transmission line operation would be negligible because EMF diminishes rapidly with distance from the transmission line and the project is mostly located in undeveloped open areas that are not densely populated. The ROW/easement width associated with the transmission line is intended to prevent intrusion (specifically, construction of residences of other structures) into the corridor that could cause adverse health effects.

Alternative A (Proposed Action) and Alternative B

Health and safety risks and impacts would be the same for both alternatives.

Mitigation

PSCo would ensure construction and operation is conducted in compliance with all applicable Occupational Health and Safety (OSHA) rules and regulations and other standard operational procedures and protocols, including best management practices, to maintain a safe and healthy environment for workers and the public.

Livestock Grazing Management

Affected Environment

According to the 2011 BLM CRVO Grazing Allotment permit renewal map, nine potential grazing allotments occur within the project area (see Table 9; BLM 2011c).

Table 9. Grazing allotments within the Project Area.

| Allotment Name | Allotment No. | Acres of Public Land |
|--------------------------|----------------------|-----------------------------|
| Battlement Creek Commons | CO05124 | 2,550 |
| Beaver Creek | CO08113 | 462 |
| Beaver Mamm | CO08104 | 4,110 |
| Dry Creek Bill and Pete | CO08125 | 7,259 |
| Grass Mesa | CO08112 | 1,020 |

| | | |
|----------------------|---------|-------|
| Hoagland | CO08123 | 301 |
| Oates | CO08103 | 1,203 |
| Porcupine Commons | CO08119 | 1,928 |
| Spruce Gulch Commons | CO08121 | 1,715 |

Source: BLM 2011c

Environmental Effects

No Action Alternative

Under the No Action alternative, there would be no impacts to Livestock Grazing Allotments.

Effects Common to Action Alternatives

A small percentage of the grazing allotment area would be affected for areas common to both alternatives (less than 1 percent). All temporary disturbances would be reclaimed using methods described in the “Reclamation” section. If any fencing is disturbed during construction, it would be repaired or replaced.

Alternative A (Proposed Action)

Short-term construction activity for the proposed action would disturb small areas within the Dry Creek Bill and Pete grazing allotment, Battlement Creek Common grazing allotment, Porcupine allotment, and Beaver Creek allotment. These areas would represent a very small percentage of each allotment (less than 1 percent). At these levels, the short-term and long-term effects on grazing allotments would be considered negligible.

Alternative B

The Beaver Mamm, Grass Mesa, Hoaglund, Oates, and Spruce Gulch Common allotments would be impacted by Alternative B. Placement of poles would affect a small percentage of grazing allotment acreage within the project area (less than 1 percent).

Mitigation

No mitigation is necessary, as the short-term and long-term effects would be negligible.

Realty Authorizations

Affected Environment

There are many existing BLM Realty Authorizations in the project area (Table 10), mostly powerlines and pipelines, access roads, and leases related to natural gas development. A 1980’s land exchange patent (COC-038487FD) covers the following: T. 7 S., R94W and T., 7 S., 95 W.6th PM.

Table 10. Existing Realty Authorizations in the project area.

| Township | Range | Section(s) |
|----------|-------|------------------|
| 7S | 96W | 12 |
| none | | |
| 7S | 95W | 6,7,8,9,10,11,12 |

| Township | Range | Section(s) |
|-----------------|---------------------|---------------------------|
| COC-029423 | PSCo | Powerline |
| COC-060190 | Delaney and Balcomb | Disclaimer of Interest |
| COC-066088 | Canyon Gas | Pipeline |
| COC-067071 | WPX | O&G lease/pipeline/road |
| COC-072179 | WPX | O&G lease/pipeline/road |
| COC-001524 | Mobil | O&G lease/pipeline/road |
| COC-005173 | ABO | O&G lease/pipeline/road |
| COC-081297 | PSCo | Pipeline |
| 7S | 94W | 1,7,8,9,10,11,12 |
| COC-029423 | PSCo | Powerline |
| COC-036490 | WPX | O&G lease/pipeline/road |
| COC-038487PT | Joan Savage | Land Exchange |
| COC-046029 | Encana | O&G lease/pipeline/road |
| COC-046032 | Encana | O&G lease/pipeline/road |
| COC-051003 | Canyon Gas | Pipeline |
| 7S | 93W | 5,6,21,22,23,28,32 |
| COC-029423 | PSCo | Powerline |
| COC-041916 | WPX | O&G lease/pipeline/road |
| COC-046150 | Encana | O&G lease/pipeline/road |
| COC-050944 | ABO | O&G lease/pipeline/road |
| COC-052889 | Encana | O&G lease/pipeline/road |
| COC-55972X | Encana | O&G Exploratory unit |
| 6S | 93W | 14 |
| none | | |

Environmental Effects

No Action Alternative

Under the No Action Alternative, there would be no new realty authorizations issued and no impacts would occur to various existing authorizations.

Effects Common to Action Alternatives

The proposed powerline would parallel or cross existing BLM authorized actions. Any construction activities would be coordinated with other ROW grant holders, once a specific alignment and construction schedule has been established. Each ROW grant holder would be responsible for maintenance and reclamation conditions associated with their ROW grant.

Noise and Electromagnetic Interference

Affected Environment

The project is located primarily in a rural setting where ambient background noise is typically low. However, recent oil and gas development has introduced noise associated with road construction, drilling, well completion, operation, and increased truck traffic. Regional and local traffic on county and BLM roads is also a source of noise, as well as operation of agricultural equipment. Near Parachute, noise from I-70 is dominant. Residential and commercial development adds to ambient noise near Parachute and Rifle.

The existing 230-kV and 345-kV transmission lines in the area also contribute noise from routine maintenance and transmission line operation. The corona noise from transmission line operation typically sounds like crackling or hissing and is caused by the breakdown of air into charged particles caused by the electrical field at the surface of conductors. Noise varies with line voltage and weather and is greatest when raining or when humidity is high. During dry conditions, corona noise at the edge of the ROW/easement is typically about 40 to 50 decibels (dBA), which is about the ambient noise level in an average home.

Electromagnetic interference from transmission line conductors are capable of interfering with radio signals, and to a lesser extent, television signals. The existing 230-kV and 345-kV transmission lines present near the project area are a possible source of radio-frequency interference. The potential for interference diminishes with distance from the transmission lines.

Applicable Colorado Noise Statutes (25-12-103) provide maximum noise limits that apply to a distance of 25 feet from a property line (Table 11).

Table 11. Maximum Noise Limits

| Zone | 7:00 am to next 7:00 pm | 7:00 pm to next 7:00 am |
|------------------|--------------------------------|--------------------------------|
| Residential | 55 db (A) | 50 db (A) |
| Commercial | 60 db (A) | 55 db (A) |
| Light Industrial | 70 db (A) | 65 db (A) |
| Industrial | 80 db (A) | 75 db (A) |

Construction projects are subject to the maximum permissible noise levels specified for industrial zones.

Environmental Effects

No Action Alternative

Noise levels in the project area would not change under the No Action alternative because construction and operation of a new transmission line would not take place.

Effects Common to Action Alternatives

Construction activities during installation of the transmission line and structures would result in a short-term increase in noise over the course of the 9 to 12 month construction period.

Construction noise would occur at specific construction sites as well as from truck traffic delivering supplies, equipment, and workers. Construction noise would be greatest while working on excavation for the transmission line structure foundations. This work would involve the use of backhoes, air compressors, and jackhammers. These construction activities would

generate noise levels from about 70 to 90 decibels at a distance of 50 feet, depending on the type of equipment or activity (FHWA 2013). Use of helicopters for installation of transmission structures where road access is not available also would result in temporary increased noise levels.

Noise from helicopter use would depend on the type of helicopter and the activity being performed. Noise generated from helicopter use would range from about 89 to 99 dBA at a distance of about 50 feet when in flight at 200 feet (BLM 2013) when carrying heavy loads. Light duty helicopters used in stringing would generate noise levels of about 80 dBA at 200 feet (BLM 2013). Helicopter sound emissions would occur at the work site and along portions of transmission line route, as well as staging areas and helicopter fly yards during construction. Because helicopters would be used to access remote sites where no roads are present, noise related impacts to residents or other receptors would be minor. In addition, helicopter use would occur over a relative short periods for any given location, thus adverse noise impacts from helicopter operations would be limited.

Construction noise would be attenuated to some degree by dense vegetation cover and topography at many of the locations. There are few residences near the alternative transmission line alignment, except near Parachute, where ambient noise levels are higher due to the proximity to I-70 and other development. For most locations, noise levels would dissipate prior to reaching noise receptors. There are few residences or sensitive noise receptors adjacent to either transmission line route.

Noise levels would be similar to existing background noise levels during operation of the transmission line. The design standard for transmission line construction is to generate less than 50 dBA at the edge of the ROW. The corona noise associated with electrical transmission would be negligible by the edge of the ROW. Maintenance would include access by vehicles, personnel, and periodic flyovers by helicopters to survey the condition of the transmission line. Periodic vegetation clearing around structures and occasionally under portions of the line would result in a short-term increase in noise.

Because of the location of the line and distance from most residences, radio interference is expected to be minimal. Regular maintenance would address damaged or loose hardware on structures that contribute to radio interference. PSCo would also troubleshoot identified interference issues as part of maintenance as they occur.

Alternative A (Proposed Action)

Construction noise levels would occur over a slightly smaller area under Alternative A compared to Alternative B because of route length differences. Because both routes have the same terminus near population centers there would be no substantial difference in noise impacts near Parachute and Rifle. The construction of about 1.7 miles of the new transmission line under Alternative A would occur in an area where no existing transmission line is present, thus maintenance and operational noise would be expanded slightly from existing conditions.

Alternative B

Alternative B includes about 10.5 miles of transmission line that does not follow an existing transmission line corridor. Maintenance and operational noise would be expanded into a greater area than Alternative A and existing conditions.

Mitigation

All motor vehicles and equipment would have mufflers conforming to original manufacturer specifications that are in good working order and are in constant operation to prevent excessive or unusual noise. Truck traffic would be routed away from sensitive noise areas where feasible. Work would be conducted in compliance with state noise statutes for construction activities in levels in industrial zones.

Paleontology

Affected Environment

Paleontological resources constitute a fragile and nonrenewable scientific record of the history of life on earth. Fossils occur in several geologic formations in western Colorado. A comprehensive paleontological inventory has not been carried out for the Colorado River Valley Field Office planning area, but paleontological studies by others have documented numerous fossils records of plants, invertebrates, and vertebrates in the region. Twenty geologic formations in the CRVFO planning area have the potential to contain significant fossils.

BLM uses a five level classification system to rate geologic units from very low to very high for the potential to contain important fossils. The Wasatch Formation is the most productive area for finding significant fossils in the project area. The Wasatch Formation is considered a Class 5 category for the presence of fossils. Class 5 geologic units contain a high occurrence of significant fossils, including vertebrate fossils or scientifically significant invertebrate or plant fossils are known to occur and have been documented, but may vary in occurrence and predictability, as well as fossil quality and scientific importance. Surface disturbing activities may adversely affect paleontological resources in Class 5 geologic units. While there are no known significant fossils from the project area, portions of the project have the potential to contain fossils.

Environmental Effects

No Action Alternative

There would be no impact to paleontological resources under the No Action alternative.

Effects Common to Action Alternatives

Excavation of foundations for transmission line structures and minor surface disturbances would occur in portions of the Wasatch Formation that may contain paleontological resources.

Potential impacts to geologic formations with important fossil bearing material is anticipated to be minor or negligible because of the relatively small shallow excavations and absence of major disturbance in bedrock outcrops associated with transmission line construction.

Alternative A (Proposed Action) and Alternative B

The potential for impacting paleontological resources would be similar for both alternatives.

Mitigation

(included in project Design Features)

Plants: Invasive Non-Native Species (Noxious Weeds)

Affected Environment

Noxious weeds were found within the project area as shown below (Table 12). Weed populations occur throughout the project area, particularly in existing disturbed areas such as roadways, pipelines, oil and gas facilities, and other industrial operations. Weeds are also spread by cattle, and are present throughout the project area in grazed areas.

Table 12. Noxious Weeds in the Project Area*.

| Common Name | Scientific Name | List | Location |
|------------------------|-------------------------------|------|--|
| Bull thistle | <i>Carduus vulgare</i> | B | Scattered patches throughout the project area, especially in or near disturbed areas |
| Canada thistle | <i>Cirsium arvense</i> | B | Occurs in patches along roads and near streams |
| Houndstongue | <i>Cynoglossum officinale</i> | B | Found in moist areas by drainages and along roads |
| Musk thistle | <i>Carduus nutans</i> | B | Found along roads and other disturbed areas |
| Plumeless thistle | <i>Carduus acanthoides</i> | B | Found along roads and other disturbed areas |
| Russian knapweed | <i>Acroptilon repens</i> | B | Patches found around well pads and other disturbed areas |
| Russian olive | <i>Elaeagnus angustifolia</i> | B | Found along the Colorado River and tributaries |
| Salt cedar | <i>Tamarix sp.</i> | B | Found along drainages and the Colorado River |
| Whitetop (Hoary cress) | <i>Cardaria draba</i> | B | Found around well pads and other disturbed areas |
| Bulbous bluegrass | <i>Poa bulbosa</i> | C | Commonly found throughout the project, especially in disturbed areas |
| Cheatgrass | <i>Bromus tectorum</i> | C | Commonly found throughout the project area |
| Common Mullein | <i>Verbascum thapsus</i> | C | Found in scattered patches, especially in disturbed areas |
| Field bindweed | <i>Convolvulus arvensis</i> | C | Commonly occurs in disturbed areas throughout the project |
| Halogeton | <i>Halogeton glomeratus</i> | C | Scattered patches, especially at the western end of the project area |
| Redstem filaree | <i>Erodium cicutarium</i> | C | Commonly occurs in disturbed areas throughout the project |

Source: Garfield County 2013; Colorado Department of Agriculture 2013

*Shaded rows are on the Garfield County noxious weed list. Colorado State Noxious Weed List Designations are as follows (no "A" list species found):

"B" – List B of the State of Colorado Noxious Weed species for which the Commissioner of Agriculture, in consultation with the state noxious weed advisory committee, local governments, and other interested parties, will develop and implement state noxious weed management plans designated to stop the continued spread of the species.

"C" –List C of the State of Colorado noxious weed species which the Commissioner of Agriculture of the State of Colorado noxious in consultation with the state noxious weed advisory committee, local governments, and other interested parties, will develop and implement state noxious weed management plans designed to support the efforts of local government bodies to facilitate more effective integrated weed management plans on private and public lands. The goal of such plans will not be to stop the continued spread of these species but to provide

additional educational, research, and biological control resources to jurisdictions that choose to require management of List C species.

Environmental Effects

No Action Alternative

Under the No Action alternative no new surface disturbance would occur, therefore there would not be impacts to noxious weeds.

Effects Common to Action Alternatives

Activities which cause surface disturbance, such as the action alternatives, create an opportunity for the invasion or expansion of noxious weeds, particularly in areas where noxious weeds are already present in the vicinity. Effects for both alternatives would be very similar, and spread of noxious weeds as a result of the project would be minimal. No new access roads are proposed; existing access roads would be used for both alternatives. Where no access roads are present, helicopters would deliver supplies and staff to install the poles and string the line. For installation of the poles, Alternative A (Proposed) would have up to 2.28 acres of surface disturbance and Alternative B would have up to 2.96 acres of surface disturbance. Because Alternative B is slightly longer, this alignment would have more poles and therefore slightly more surface disturbance. As a result, Alternative B would likely result in slightly higher spread of noxious weeds.

Mitigation

All construction equipment and vehicles involved in land disturbing actions would be free of noxious weed seeds or propagative parts prior to entry on site. When working in areas with noxious weeds, equipment would be cleaned prior to moving off site. Any weeds present in the pole construction locations would be treated prior to surface disturbing activities.

Analysis on Public Land Health Standard 4 for Plant and Animal Communities (partial, see also Special Status Species, Vegetation, and Aquatic and Terrestrial Wildlife)

Based on LHA (BLM 2005 and 2009), the project vicinity was meeting Standard 4, although the establishment of invasive, non-native plants were observed problems. Non-native plants occur predominantly in disturbed areas, and cause declines in several plant functional groups, primarily cool-season grasses and forbs. Surface disturbance from this project has the potential to increase the spread of non-native invasive plants. The revegetation and weed management requirements identified as design features for the project are designed to restore native vegetation to disturbed sites, and remove invasive nonnatives. Based on project design components and the small footprint of disturbance for pole installation, the Proposed Action would not jeopardize the viability of any plant population as a result of the proliferation of non-native, invasive species. The project would have no significant adverse effects on habitat condition, utility, or function or on species abundance and distribution at a landscape scale. Public Land Health Standard 4 would continue to be met.

Plants: Sensitive, Threatened, and Endangered

Affected Environment

Plant surveys and habitat evaluations were completed for the entire project area, during the blooming season for each species, including both Alternatives A and B. The project area was also evaluated for presence of rare or exemplary plant communities as defined in the Glenwood Springs Resource Area Oil and Gas Leasing Final EIS (BLM, 1999). Survey results for each plant species are detailed in Table 13.

Habitat for one Federally threatened plant species, the Colorado hookless cactus, was observed in the project area. No individual plants or populations of this species were found during the surveys.

Habitat for three BLM sensitive species was observed during survey, and populations of one BLM sensitive species and one BLM sensitive plant community was documented. Extensive populations of Harrington’s beardtongue (about 7 miles of the survey corridor) and a small population of the cottonwood-skunkbush sumac woodland were documented during surveys in June 2013. Harrington’s beardtongue is a perennial vascular plant found primarily in dry, sagebrush-dominated communities between about 6,100 and 9,400 feet in elevation in northwest Colorado. The project area falls within one of three known populations for this species, the Rifle-Rulison population area. Other population areas for this species occur in Eagle County and in the Roaring Fork area in Pitkin County. NatureServe and the Colorado Natural Heritage Program both rank this species as vulnerable (G3 and S3). The species is on the BLM Colorado State Sensitive Species List. It is not listed as threatened or endangered under the Federal Endangered Species Act, nor is it currently a candidate for listing (FWS 2013).

Table 13. Sensitive Plant Species and Significant Plant Communities within the Project Area.

| Species | Status | Habitat | Potential Habitat in Project Area |
|--|---------------|---|---|
| DeBeque phacelia (<i>Phacelia submutica</i>) | Threatened | Sparsely vegetated clay slopes of the Wasatch Formation | No |
| Colorado hookless Cactus (<i>Sclerocactus glaucus</i>) | Threatened | Desert scrub and greasewood flats, sometimes including pinyon-juniper woodlands and sagebrush shrublands | Yes (about 0.83 miles within corridors); species not observed |
| Ute ladies'-tresses (<i>Spiranthes diluvialis</i>) | Threatened | River floodplains, alluvial stream banks, wetlands and riparian areas – all areas must be relatively open and where species does not have to compete for space and light (NatureServe 2012) | No |
| Parachute beardtongue (<i>Penstemon debilis</i>) | Threatened | Shale outcrops of the Green River Formation | No |
| DeBeque milkvetch (<i>Astragalus debequaeus</i>) | BLM sensitive | Barren outcrops of dark clay interspersed with lenses of sandstone. at 5,100 to 6,400 feet elevation | Yes (about 0.42 miles within corridors); species not observed |
| Naturita milkvetch | BLM sensitive | Open pinyon-juniper woodlands | Yes (about 0.36 miles |

| Species | Status | Habitat | Potential Habitat in Project Area |
|--|-----------------------------|--|--|
| <i>(Astragalus naturitensis)</i> | | with sandstone shelves | within corridors); species not observed |
| Harrington's beardtongue (<i>Penstemon harringtonii</i>) | BLM sensitive | Sagebrush shrublands sometimes interspersed with Gambel oak and pinyon-juniper woodlands with open canopy at 6,100 to 9,400 feet elevation | Yes (populations documented 6.74 miles within corridors) |
| Juniper-Mountain Mahogany | Significant plant community | Hillslopes and crests | No |
| Cottonwood-Skunkbush sumac woodland | Significant plant community | Riparian areas | Yes (populations documented, about 0.007 miles within corridors) |

Source: FWS 2013

Environmental Effects

No Action Alternative

There would be no effects to rare plants or communities from the No Action alternative.

Effects Common to Action Alternatives

Both alternatives would have similar effects to rare plants (Table 14). Potential habitat occurs within the pole disturbance footprint for both alternatives (about 0.17 acres total potential habitat for both Colorado hookless cactus and Naturita milkvetch). Both action alternatives would disturb about 0.15 acre of potential Colorado hookless cactus habitat. However, the proposed project would have no effect on Colorado hookless cactus because none were observed in the project area during intensive field survey and the quality of habitat is marginal. Significant plant communities likely can be avoided by pole disturbance. About 0.20 acre of surface impacts to Harrington's beardtongue occupied habitat would occur in areas common to both action alternatives. Other impacts would result from trampling, general overland travel, placement of equipment and poles within the ROW, and indirect impacts from the spread of noxious weeds. Based on average plant densities found during surveys, up to 2,000 individual plants could be affected by surface clearing for pole placement activities common to both action alternatives, if avoidance and minimization measures were not implemented. Impacts to Harrington's beardtongue under either action alternative would not threaten the viability of the species, cause the species to be jeopardized, or result in a trend toward Federal listing. With avoidance measures, it is anticipated that less than 500 plants would be affected. Approximately 80 acres of Harrington's beardtongue were found within the project survey area, so this species is fairly common in the region.

Table 14. Potential Impact to Sensitive Species and Communities from Pole Footprints.

| Species/Plant Community | Alternative A (acres) | Alternative B (acres) | Common to both Action Alternatives (acres) |
|--------------------------|-----------------------|-----------------------|--|
| Colorado hookless cactus | 0.00 | 0.00 | 0.15 |

| Species/Plant Community | Alternative A (acres) | Alternative B (acres) | Common to both Action Alternatives (acres) |
|-------------------------------------|------------------------------|------------------------------|---|
| DeBeque milkvetch | 0.05 | 0.02 | 0.00 |
| Naturita milkvetch | 0.03 | 0.03 | 0.02 |
| Harrington's beardtongue | 0.15 (about 1,500 plants) | 0.44 (about 4,400 plants) | 0.20 (about 2,000 plants) |
| Juniper-mountain mahogany | 0.00 | 0.00 | 0.00 |
| Cottonwood-skunkbush sumac woodland | 0.00 | 0.00 | 0.00 |

Alternative A (Proposed Action)

Based on preliminary alignments, Alternative A would have about 0.08 acre of impact to potential DeBeque and Naturita milkvetch habitat, and about 0.15 acre of impact to known Harrington's beardtongue populations. However, it is likely that the impact footprint could be reduced by adjusting pole placement to avoid and minimize impacts to Harrington's beardtongue (see Mitigation section). Based on average plant densities found during surveys, up to 1,500 individual plants could be affected by surface clearing unique to Alternative A, if avoidance and minimization measures were not implemented. This would be in addition to the potential disturbance of approximately 2,000 plants common to both alternatives. With avoidance measures, it is anticipated that less than 500 plants would be affected in the portion of the alignment unique to Alternative A.

Alternative B

Alternative B would have about 0.05 acre of impact to potential DeBeque and Naturita milkvetch habitat, and about 0.44 acre of impact to known Harrington's beardtongue populations. Based on average plant densities found during surveys, up to 4,400 individual plants could be affected by surface clearing unique to Alternative B, if avoidance and minimization measures were not implemented. This would be in addition to the potential disturbance of approximately 2,000 plants common to both alternatives. With avoidance measures, it is anticipated that less than 1,000 plants would be affected in the portion of the alignment unique to Alternative B.

Mitigation

Placement of poles within potential or known habitat for sensitive species or communities would be avoided to the extent feasible, as described in the *Design Features* section of the *Actions and Facilities Common to Alternatives A and B* Section (see discussions starting on page 7). A biological monitor would be present during all construction activities in occupied Harrington's beardtongue habitat to minimize impacts to this species and its habitat. Thus, actual impacts to sensitive plant species and communities are likely to be less than preliminary estimates.

Analysis on Public Land Health Standard 4 for Plant and Animal Communities (partial, see also Vegetation; Wildlife, Aquatic; and Wildlife, Terrestrial).

The Proposed Action would not jeopardize the viability of any population of special status plant species due to habitat loss, modification, fragmentation, or indirect effects. The project would

have no significant consequence on habitat condition, utility, or function or any discernible effect on species abundance or distribution at a landscape scale. Public Land Health Standard 4 would continue to be met.

Plants: Vegetation, Wetlands and Riparian Zones

Affected Environment

The proposed project area generally consists of rolling hills covered with Utah juniper (*Juniperus osteosperma*) and pinyon pine (*Pinus edulis*) bisected by intermittent to perennial streams (Figure 2). Mixed shrublands are also common throughout the project area. The far western portion of the project area crosses the floodplain of the Colorado River. Vegetation communities are described in the sections below, with acreages provided in Table 15. Disturbed areas are common throughout the project area, and include roads, pipeline corridors, industrial and residential areas, and oil and gas pads and other operations.

Plant communities

Pinyon-Juniper Woodlands

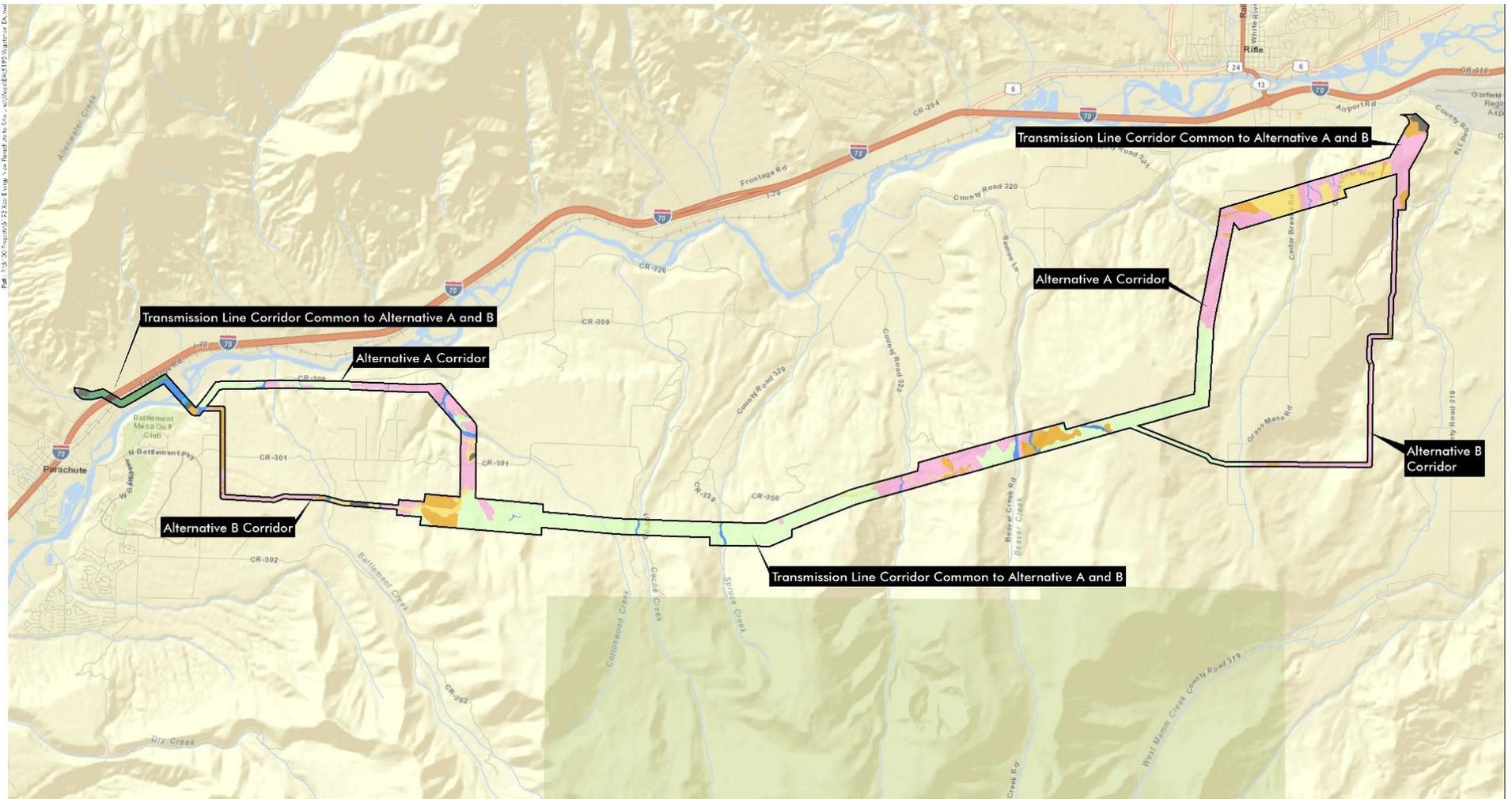
Pinyon-Juniper woodlands are common throughout the project area. Juniper is the most common tree with pinyon pine occurring either as a co-dominant or a few individuals scattered in the community. In some areas, dense stands of juniper cover rocky hillslopes with a sparse understory of grass patches. In other areas, shrubs such as Basin and Wyoming sagebrush (*Artemisia tridentata tridentata* and *A. tridentata wyomingensis*), mountain mahogany (*Cercocarpus montanus*), and serviceberry (*Amelanchier* sp.) form a dense shrub layer. Open woodlands of juniper occur on rocky, exposed hillsides.

Sagebrush Shrublands

Sagebrush shrublands commonly occur within the project area ranging from sagebrush flats at the foot of the mesas (elevation about 5,400 feet) to mixed mountain shrublands on the higher mesas (about 7,800 feet on Flattop Mesa). Sagebrush shrublands also occur underneath existing power lines.

Sagebrush flats dominated by Wyoming sagebrush with Basin sagebrush occur on relatively level areas such as mesa tops and skirting the bottom of the mesas. These sagebrush flats are typically heavily grazed and the understory is generally dominated by weeds such as cheatgrass (*Bromus tectorum*) and hornhead (*Ceratocephala orthoceras*).

Figure 2. Vegetation Communities



Xcel Rifle to Parachute Transmission Line

- | | | |
|---|---|--|
| DS - Desert Shrubland | OW - Open Water | Survey Area |
| D - Disturbed | PJ - Pinyon-Juniper Woodland | |
| GF - Greasewood Flats | R - Riparian | |
| MG - Mixed Grassland | SS - Sagebrush Shrubland | |
| MS - Mixed Shrubland | | |

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Mixed Mountain Shrublands

At the higher elevations, mixed mountain shrublands dominated by mountain big sagebrush (*Artemisia tridentata* var. *pauciflora*) and Gambel oak (*Quercus gambelii*) cover the slope. Other shrubs such as antelope bitterbrush (*Purshia tridentata*), snowberry (*Symphoricarpos oreophilus*), and serviceberry occur in patches with Gambel oak and Wyoming sagebrush. Scattered junipers often occur with mixed mountain shrublands, with a variety of forbs, grasses, and cacti forming the understory.

The mixed mountain shrublands on the higher elevation mesa tops (above 6,200 feet) is known and potential habitat for the BLM sensitive species Harrington penstemon. This species occurs within the sagebrush areas on top of Flatiron Mesa and other locations within the project area.

Greasewood flats

Greasewood (*Sarcobatus vermiculatus*) shrubs dominate the relatively flat upper terraces along the Colorado River. Another shrub, Basin sagebrush, is also common. The understory is relatively sparse dominated by cheatgrass and bulbous bluegrass (*Poa bulbosa*) with other more vegetated areas covered by various wheatgrasses.

Mixed Grasslands

Grasslands dominated by mostly introduced grasses occur on formerly disturbed lands or agricultural lands throughout the project area. Introduced pasture grasses are typical, and include crested wheatgrass (*Agropyrum cristatum*) and smooth brome (*Bromus inermis*). Numerous weedy species such as cheatgrass are common. Some native species also occur, in the less disturbed areas.

Herbaceous Riparian-Wetland

Cattail (*Typha latifolia*) wetlands occur in and along edges of small ponds within the project area. Other herbaceous riparian communities include rush (*Juncus* sp.) and sedge (*Carex* sp.) dominated wetlands within drainages.

Shrubby Riparian-Wetland

Shrubby riparian areas occur along narrow swales in the bottom of steep gullies and shallower drainage valleys. A wide variety of shrubs form patches around small streams ranging from the dense shrub layer of sandbar willows (*Salix exigua*) to more open patches areas where sandbar willows are mixed with more mesic and upland species such as greasewood and red osier dogwood (*Cornus sericea*). Near the Town of Parachute, the noxious weed salt cedar (*Tamarix ramossissima*) dominates the drainages with a scattering of cottonwoods (*Populus* sp.).

Riparian Woodland

Riparian woodlands with an overstory of cottonwoods, river birch (*Betula occidentalis*) and other trees occur along larger streams and the Colorado River within the project area. Dense patches of red-osier dogwood, willow and other riparian shrubs dominate the streambanks and occasionally adjacent hillsides. A relatively uncommon community of mature Rio Grande cottonwoods (*Populus deltoides* subsp. *wislizenii*) occurs on the outer edge of the Colorado River floodplain.

Table 15. Plant Communities within the Project Corridor.

| Vegetation Type | Alternative A (acres in 150-ft Corridor) | Alternative B (acres in 150-ft Corridor) | Common to both A&B (acres in 150-ft Corridor) |
|------------------------------------|---|---|--|
| Disturbed | 0.68 | 4.76 | 3.88 |
| Greasewood flats | 0.00 | 0.00 | 15.75 |
| Mixed grassland | 28.15 | 16.63 | 1.09 |
| Mixed shrubland | 72.40 | 32.19 | 103.55 |
| Open water | 0.00 | 0.00 | 0.79 |
| Pinyon-Juniper woodland | 79.50 | 119.66 | 24.05 |
| Sagebrush shrubland | 9.01 | 28.70 | 17.82 |
| <i>Wetlands and Riparian Areas</i> | | | |
| Riparian | 3.40 | 2.90 | 13.19 |
| Wetland | 0.34 | 0.34 | 1.74 |
| Wetland and Waters | 0.02 | 0.06 | 0.24 |
| Waters of the U.S. | 0.20 | 0.09 | 2.89 |
| Ditches | 0.00 | 0.02 | 0.00 |

Environmental Effects

No Action Alternative

Under the No Action alternative no new surface disturbance would occur, therefore there would be no impacts to vegetation communities.

Effects Common to Action Alternatives

Vegetation communities would be affected by surface clearing activities necessary to place to pole structures, by vegetation trimming to maintain the required “clear zone” between the line and woody vegetation under it, and by potential spread of noxious weeds from surface disturbing activities. Direct impacts from vegetation clearing and grubbing is shown in Table 16 below. For portions of the line common to both alternatives, about 1.05 acres of vegetation clearing would be required, primarily in mixed shrubland communities. Trimming of woody vegetation for line clearance purposes would be very limited. Most of the vegetation communities do not have tall trees that would interfere with the line. Some tree trimming or clearing may be required in riparian corridors where cottonwood, elm, and other trees are taller. Juniper and pinyon trees within the powerline corridor are not tall enough to interfere with the line and would not require trimming under most circumstances. All temporary staging areas are in existing disturbed areas on private lands. Staging areas will total approximately 10 to 15 acres in existing disturbance. No vegetation clearing will be associated with the staging areas.

Table 16. Surface Disturbance to Vegetation Communities from Pole Placement.

| Vegetation Type | Alternative A (acres) | Alternative B (acres) | Common to both A&B (acres) |
|------------------------------------|-----------------------|-----------------------|----------------------------|
| Disturbed | 0.00 | 0.04 | 0.04 |
| Greasewood flats | 0.00 | 0.00 | 0.12 |
| Mixed grassland | 0.26 | 0.14 | 0.00 |
| Mixed shrubland | 0.43 | 0.32 | 0.51 |
| Open water | 0.00 | 0.00 | 0.00 |
| Pinyon-Juniper woodland | 0.47 | 1.10 | 0.16 |
| Sagebrush shrubland | 0.08 | 0.26 | 0.12 |
| <i>Wetlands and Riparian Areas</i> | | | |
| Riparian | 0.02 | 0.06 | 0.07 |
| Wetland | 0.00 | 0.02 | 0.01 |
| Wetland and Waters | 0.00 | 0.00 | 0.00 |
| Waters of the U.S. | 0.00 | 0.002 | 0.02 |
| Ditches | 0.00 | 0.00 | 0.00 |

Alternative A (Proposed Action)

Alternative A would have slightly less surface disturbance because it is slightly shorter than Alternative B. There would be about 1.26 acres of disturbance within the powerline corridor unique to Alternative A, and 2.31 acres of disturbance total for this alternative. Alternative A would have slightly more disturbance to mixed shrubland and mixed grassland communities than Alternative B but less disturbance to other vegetation types (see Table 16).

Alternative B

Alternative B is slightly longer than Alternative A, and therefore would have slightly more surface disturbance. There would be about 1.94 acres of disturbance within the powerline corridor unique to Alternative B, and 2.99 acres of disturbance total for this alternative. Alternative B would have slightly more disturbance to pinyon-juniper woodlands, sagebrush shrublands, and riparian/wetland communities than Alternative A (see Table 16).

Mitigation

Pole placement is flexible in most cases, and it is likely that poles can be situated to avoid most sensitive vegetation communities such as riparian areas and wetlands. PSCo would apply for a Section 404 permit from the U.S. Army Corps of Engineers prior to construction if impacts to wetlands are unavoidable. An exception to this is the Colorado River, which has a broad floodplain and riparian zone within the project area and likely cannot be completely avoided. As described in the *Reclamation* section (in project description beginning on page 7), all surface disturbances would be seeded with a mixture of native grasses adapted to the site to help prevent the invasion of noxious weeds and to reestablish native, perennial vegetation on the site. Any noxious weeds that become established in the project area would also be controlled by the applicant. The seed mixes are presented in **Error! Reference source not found.**, Table 3, and Table 4.

Analysis on Public Land Health Standard 3 for Plant and Animal Communities (partial, see also Aquatic and Terrestrial Wildlife)

This area was meeting the standard, although problems were noted with the establishment of invasive non-native plants, predominantly in disturbed areas, with a corresponding loss of other functional groups such as native perennial grasses and forbs. Surface disturbance associated with the Proposed Action increase the spread and extent of invasive weeds; however disturbance footprints would be minimal and required only for pole installation. Design features for reclamation and control of noxious weeds are included in the project description. If reclamation and weed control are successfully implemented, the Proposed Action would not contribute to the failure of the area to meet Standard 3. As noted previously, all temporary staging areas are in existing disturbed areas on private lands. Staging areas will total approximately 10 to 15 acres in existing disturbance. No vegetation clearing will be associated with the staging areas.

Recreation

Affected Environment

There are no BLM Special Recreation Management Areas in the project area. The proposed action occurs within the lands that are part of the Glenwood Springs Extensive Recreation Management Area (ERMA) where management is for dispersed/undirected recreation activities. The current BLM Resource Management Plan (RMP) does not have any specific, measurable or targeted recreation management objectives for ERMAs. However, the RMP provides a general overview of appropriate experience and activity opportunities that occur by adopted Recreation Opportunity Spectrum (ROS) class. The RMP direction is to generally maintain a roaded-natural setting for the physical, social and administrative setting characteristics for a variety of experience and activity opportunities. Current uses within the project area include; motorized and mechanized activities, hiking, hunting, and horseback riding. Most visitors are those who want a “close-to-home” place to exercise and recreate.

Environmental Effects

No Action Alternative

There would be no impact to recreation access, activities, or opportunities within the Glenwood Springs ERMA under the No Action alternative.

Effects Common to Action Alternatives

Neither of the action alternatives would change the variety of recreation experiences or targeted activity opportunities that occur or that are appropriate on public lands within the Glenwood Springs ERMA. The proposed actions could result in a short-term shift in visitor use patterns during construction activities. Impacts to visitors within the project area would be minor depending on timing of implementation. Access to BLM lands would remain open throughout and following construction. Implementation of mitigation measures and the expected short duration and timing of construction would minimize disturbance to the visitor experience. Human health and safety concerns would also be addressed during construction and through implementation of mitigation measures.

Alternative A (Proposed Action) and Alternative B

Because of the dispersed nature of recreation activities in the project area, there would be no substantial difference in impacts between Alternatives A and B.

Mitigation

In order to minimize impacts to visitors “Public Notices” would be posted at all main access and entry areas prior to construction. Notices would include when the project is occurring (starting and end date), why the project is being done, who is doing it, a map of where the work is occurring, and what exactly is being done. Construction work near popular hunting locations on public land would be limited to the extent possible during the fall (late September to mid December) to minimize impact to recreational hunting.

Socio-Economics

Affected Environment

The proposed transmission line is located in Garfield County Colorado. Oil and gas exploration and production, ranching, agriculture, construction, tourism, and recreational activities are the main economic activities. Rifle and Parachute are the closest communities near the project. Rifle has a population of 9,200 and Parachute a population of about 1,100 in 2010 (Census 2010). Other towns in the county include Glenwood Springs, Silt, and Carbondale. According to the 2010 Census, 18,334 people were employed in “nonfarm” jobs in Garfield County. The average yearly household income in Garfield County was \$63,929 (2007 to 2011). For Colorado, the average yearly household income was \$57,685 from 2007 to 2011 (Census 2010). The average annual income in the construction sector for Garfield County is about \$49,000 (Colorado LMI Gateway 2013).

Environmental Effects

No Action Alternative:

Under the No Action Alternative, \$28 million would not be spent on labor, supplies, and materials. Because the load-serving capacity of the existing Rifle-Parachute-Cameo transmission system is near capacity, there would not be enough power to support anticipated oil and gas development and other regional economic activity if a new transmission line is not constructed. Oil and gas development could be curtailed or would need to rely on other fuel sources that may have greater impacts on air quality. In the absence of the project, retail service agreements and economic growth in the region could be affected.

Effects Common to Action Alternatives

Implementation of the action alternatives would result in \$28 million in construction-related spending. Construction expenditures would include \$8.7 million for labor and the remainder on supplies, equipment, and other services. The anticipated workforce during construction would range from about 20 to 40 workers depending on the phase of construction over the 9 to 12 month anticipated construction period and is expected average about 30 workers over the course of the project. Labor would likely come from regional communities and other surrounding Colorado counties. A small number of short-term jobs might be created during construction. Construction-related spending also would generate secondary benefits from local spending. No

long-term jobs would be created by the project, although PSCo staff or contractors would conduct maintenance operations over the life of the facilities.

The regional economy and oil and gas industry would benefit from the additional electrical capacity and reliability to support oil and gas operations and other regional economic activity. The project would meet the anticipated power demands in the region and provide a reliable second source of power (redundancy) into central Garfield County communities, including the towns of Rifle and Parachute. The project would provide uninterrupted electrical service to the Mesa and Garfield County area. The BLM and all private land owners granting easements for the transmission line would be compensated by PSCo for use of their property.

Implementation of the project would not require construction of new roads or impact access or use of public lands and recreational opportunities that contribute to the regional economy. However, short-term construction activities could shift recreation use in some locations. The addition of a second transmission line in the same corridor across the Colorado River and related visual effects would not measurably impact commercial rafting.

Alternative A (Proposed Action)

About 1.4 miles of new transmission line would be constructed across private lands where no existing transmission line is nearby. The addition of a new line would have a negligible effect on property values and land use.

Alternative B

Under Alternative B about 5.7 miles of new transmission line would be located on private land where no transmission line is currently present. Impacts on property values and land use would be slightly greater than Alternative A, but are still expected to be minor.

Mitigation

Private landowners and the BLM would be compensated for use of lands for the transmission line. All temporary disturbances would be reclaimed following construction in accordance with written easement agreements.

Soils

Affected Environment

Soils in the project area support a variety of native vegetation communities and rangelands that provide forage for livestock grazing and wildlife. Previous soil disturbances in the project area include road construction, oil and gas well pad and pipelines, existing transmission lines, agricultural activities, and other land use development. Soil productivity varies depending on soil depth, texture, moisture holding capacity, depth to rock, slope, topographic aspect, precipitation, and land use. The project area is composed of seven primary soil types: Ildefonso stony loam; Morval-Tridell complex; Potts loam; Potts-Ildefonso complex; Torriorthents-Camborthids-Rock outcrop complex; Torriorthents-Rock outcrop complex; and Vale silt loam.

Soil textures are mostly loams, clay loams, and silt loam. On steeper rocky slopes, sandy loams are more common. Ildefonso and Tridell soils have a high stone content. Most soils are well drained with moderate available water capacity except when rock content is high. Depth to bedrock is over 80 inches, except for the Torriorthents, Camborthids, and Rock outcrop map

units, where restrictive bedrock is less than 18 inches. Calcium carbonate content ranges from 5 to 35 percent. Construction of shallow excavations is rated as very limited in soils with a high rock content: Ildefonso, Torriorthents, Camborthids, and Rock outcrop map units. Organic content in the surface horizon is about 3 percent for Vale silt loams, 0.75 percent for Torriorthents, Camborthids, and Rock outcrop map units, and 1.5 percent for other map units. Soil characteristics are listed in Table 17.

Table 17. Soil Types within the Project Area.

| Soil Unit Number | Soil Unit Name | Drainage Class | Parent Material | Hazard of Water Erosion |
|-------------------------|---|---------------------------------|--|------------------------------------|
| 33 | Ildefonso stony loam, 6 to 25 percent slopes | Well drained | Mixed alluvium derived from basalt | Moderately high to high |
| 45 | Morvall-Tridell complex, 6 to 25 percent slope | Well drained | Reworked alluvium derived from sandstone or basalt | Moderately high |
| 56 | Potts loam, 6 to 12 percent slopes | Well drained | Alluvium derived from basalt, sandstone, or shale | Moderately high |
| 58 | Potts-Ildefonso complex, 12 to 25 percent slopes | Well drained | Alluvium derived from basalt, sandstone, or shale | Moderately high to high |
| 66 | Torriorthents-Camborthids-Rock outcrop complex, steep | Well drained to very low (rock) | Stony, basaltic alluvium derived from sandstone and shale; | Very low (rock) to moderately high |
| 67 | Torriorthents-Rock outcrop complex, steep | Well drained to low (rock) | Stony, basaltic alluvium derived from sandstone and shale | Very low to moderately high |
| 68 | Vale silt loam, 3 to 6 percent slopes | Well drained | Calcareous eolian deposits | Moderately high |

Source: NRCS 2013

Depending on the alignment, between 13 to 27 acres within the proposed transmission line ROW has the potential to intersect with BLM lands currently designated as ‘no surface occupancy’ to protect soil on steep slopes greater than 50 percent. These areas should be avoided for pole placement and other infrastructure construction to the extent feasible. Approximately 170 to 270 acres have the potential to intersect with BLM lands currently designated as ‘controlled surface use’ for erosive soils and slopes greater than 30 percent. These areas should be avoided for construction infrastructure and staging of equipment, where feasible, to avoid potential soil loss.

Environmental Effects

No Action Alternative

Under the No Action alternative there would be no construction activity or surface disturbance and therefore, there would be no impact to soils.

Effects Common to Action Alternatives

Construction activities have the potential for erosion and soil compaction as a result of vegetation removal, excavation, vehicle travel, and other construction disturbances. Planned use of existing roads would minimize soil disturbance and the potential for soil loss. Ground disturbance would be limited primarily to areas of pole placement and possible soil compaction from any off-road vehicle travel and activities at pull sites. Pole installation by helicopters would have minimal soil disturbance. New surface disturbance from the project would be very limited (about 2.31 acres for Alternative A and about 2.99 acres for Alternative B). Soil disturbance for each structure would be limited to an area about 20 feet by 40 feet (about 0.02 acre). Where no vehicle access is available, disturbance would be much less (about 10 feet by 10 feet per pole, or 0.005 acre).

Soil impacts and erosion from installation of pole structures would have a short-term minor impact on soil resources, with minimal potential for impacting soil stability and long-term productivity. Shallow depth to bedrock may affect construction methods for pole placement in some locations. Limited exposure of caliche layers is anticipated because of small areas of disturbance for pole installation. Implementation of best management erosion control and revegetation measures would minimize soil impacts. Revegetation success for disturbed areas would depend on site specific soil conditions, slope, and aspect. Ildefonso soils would be more difficult to revegetate because of the low water holding capacity of the stony soils and low organic matter content. Torriorthents and Camborthids would also be more difficult to revegetate because of the shallow soil depth, low water holding capacity, and very low organic matter content. Revegetation of soil disturbed by compaction from off-road vehicle travel would be minor and localized. No work would be conducted when soils are excessively wet to minimize compaction, rutting, and impacts to vegetation cover. Construction staging areas would be located in previous areas of disturbance and erosion control measures would be implemented at these sites to minimize off-site sediment transport. Staging areas would be reclaimed and revegetated following construction.

Clearing woody vegetation around pole structures would result in result in minor short-term disturbance to soil resources. However root structures would remain intact soil stability would not be adversely impacted. Very limited tree clearing is anticipated under the transmission line because most of the woody vegetation is below the required safety clearance height, thus soil disturbance for tree removal would be negligible.

Alternative A (Proposed Action)

Preliminary pole placement indicates one pole would be located on a slope greater than 50 percent with high erosion potential and a BLM designation of no surface occupancy. In addition, 11 poles are preliminarily located on lands with greater than 30 percent slopes that are designated by the BLM for controlled surface use. It is anticipated that many of these poles can be relocated to avoid these steeper slopes during final design. However, where avoidance is not feasible helicopters would be used to place poles and minimize surface disturbance and measures would be taken to minimize soil disturbance, implement erosion control measures, and revegetate disturbed areas. No staging areas would be located on slopes greater than 30 percent. If pole placement in areas of no surface occupancy or controlled surface use are unavoidable, exceptions on surface occupancy would be granted with implementation of protective measures to minimize surface erosion and maintain slope stability.

Alternative B

The Alternative B transmission line route has seven poles preliminarily located on BLM lands designated for no surface occupancy on slopes greater than 50 percent and 22 poles located on BLM lands designated as controlled surface use, where slopes are over 30 percent. The number of poles located on these steep erodible slopes can probably be reduced during final design, but complete avoidance is unlikely because of the spacing required for pole siting. As with the Proposed Action, helicopter pole placement and erosion control measures would be implemented where pole placement on steep slopes is unavoidable. No staging areas would be located on slopes greater than 30 percent. If pole placement in areas of no surface occupancy or controlled surface use are unavoidable, exceptions on surface occupancy would be granted with implementation of protective measures to minimize surface erosion and maintain slope stability.

Mitigation

Impacts to soil resources would be sufficiently mitigated by reseeded as described in the *Reclamation* section. Erosion risk would be managed by implementation of the Stormwater Management Plan.

Analysis on Public Land Health Standard 1 for Upland Soils

The 2009 Divide Creek LHA determined that all areas affected by the project were meeting Standard 1 for Upland Soils. The 2005 Rifle-West Watershed LHA determined that all areas affected by the project are meeting Standard 1 for Upland Soils. The Proposed Action would not prevent Standard 1 from being achieved. Design Features for reclamation, described previously, protect project area soils and ensure that Standard 1 would continue to be met.

Visual Resources

Affected Environment

Visual resources include the natural and human modified landscape. The scenic and visual quality of the landscape is influenced by vegetation, slope, topography, rock outcrops, water bodies, man-made structures or landscape modifications. The existing visual quality of the project area is influenced by the presence of roads, oil and gas development, existing transmission lines, the I-70 corridor, and development near Parachute and Rifle. Key observation points with a potential view of the transmission line include I-70, scattered residential development, and County and BLM roads.

BLM uses a Visual Resource Management (VRM) system to objectively and systematically evaluate scenic values and appropriate levels of management. The proposed project area is located in an area with VRM Classes II, III and IV. The objective of Class II is to retain the existing character of the landscape. The level of change to the landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes to the landscape must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. The objective of Class III is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. The objective of Class IV is to provide for management activities that require major modifications to the existing character of the landscape.

The level of change to the landscape can be high. The management activities may dominate the view and may be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repetition of the basic visual elements of form, line, color, and texture.

BLM no surface occupancy restrictions include slopes over 30 percent with high visual sensitivity in the I-70 viewshed. Lands with high visual sensitivity are those lands within 5 miles of the interstate, of moderate to high visual exposure, where details of vegetation and landform are readily discernible, and changes in visual contrast can be easily noticed by the casual observer on the interstate. Exceptions on surface occupancy would be granted if protective measures to maintain the overall landscape character accomplish VRM Class II objectives. Federal lease terms regarding visual concerns and VRM objectives are not applicable on private lands.

Environmental Effects

No Action:

The No Action alternative would maintain the existing landscape character and would have no impact on the three VRM Class objectives.

Effects Common to Action Alternatives

Both of the action alternatives would introduce an additional visual component to the landscape from installation of new steel H-frame structures and transmission lines. Tree clearing would occur primarily around structures for safety and access. Because minimal vegetation clearing would be needed under the transmission lines, no linear corridor of vegetation clearing would occur and changes to the landscape would primarily be the additions of the pole structures and electrical conduit. The height and distance between structures would vary with the terrain. Structure height would range from 75 to 120 feet above the ground with the span between structures varying between 600 and 1,300 feet. Use of weathering steel for the structures is less reflective and reduces visibility. Material staging areas would have a temporary visual impact to the landscape during construction. Disturbed sites would be reclaimed and revegetated following construction with negligible long-term visual impact.

A viewshed analysis was conducted from multiple locations on along I-70, County Road 301, and County Road 320 to evaluate the visibility of a new transmission line from different perspectives (Figures 3, 4, and 5). The viewshed analysis examined the potential visibility of 130-foot tall transmission line poles from different observation points. Visibility of the poles would be a function of distance from the observer, foreground and background vegetation, contrast with the horizon, and other factors. As noted in Figure 3, the transmission line route common to Alternatives A and B would be visible from I-70 north of Parachute; however, changes to the visual setting would be minor since the route would parallel the existing 230 kV transmission line. A small portion of the common transmission line route would also be visible south of Rifle. Changes in visual quality near Rifle also would be minimal because the line would follow the route of the existing 345 kV transmission line and there are few residential or other observation points south of the Rifle substation. Portions of the common transmission line alignment would also be visible from County Roads 301 and 320 as shown in Figure 4 and Figure 5.

Alternative A (Proposed Action)

To minimize visual impacts and maintain visual landscape character, the route for the Alternative A transmission line was located parallel to the existing 345 kV transmission line corridor and the existing 230 kV transmission line route for all but about 2 miles. Thus, Alternative A follows existing transmission line corridors for about 90 percent of the alignment to minimize changes to the visual landscape. Portions of the transmission line would be visible from I-70 north of Parachute where the new line would parallel an existing 230-kV transmission line (Figure 3) and from County Road 301 (Figure 4). The transmission line would have limited visibility from County Road 320 for most of the western portion of the alignment (Figure 5).

Alternative A, including the portion of the route in common with Alternative B, includes about 137 acres of land in VRM Class II and 237 acres in Class IV (Table 18). Approximately 128 acres of the transmission line route are located in VRM Class II lands designated with no surface occupancy. All but 16.1 acres of the transmission line route located on BLM land designated as no surface occupancy, parallel existing transmission lines. Because the proposed new structures and line would be shorter than existing facilities, visual changes to the landscape would be minimized. The 2 miles of transmission line that creates a new corridor is located in a rural area with scattered oil and gas production and is split between VRM Class II and IV. The transmission line would be visible from several county and BLM roads and scattered rural residencies, but the visual character of the landscape would not change substantially from existing conditions where the transmission line follows existing lines. Limited vegetation clearing, revegetation of temporary disturbances, avoidance of new road construction, and use of weathered steel poles would contribute to minimizing impacts to the visual character of the landscape and maintaining VRM Class objectives. Because vegetation clearing would be limited primarily to pole placement, there would be no long straight lines created by clearing vegetation under the electrical conduit.

Table 18. Visual Resource Management Classes by Alternative.

| VRM Class | Alternative A | Alternative B | Common to both A and B |
|-------------------------|-----------------|---------------|------------------------|
| | Proposed Action | | |
| (Acres in 150-foot ROW) | | | |
| II | 106 | 79 | 31 |
| III | 0 | 91 | |
| IV | 88 | 35 | 149 |

Alternative B

The Alternative B transmission line ROW, including the route shared with Alternative A would be located within 110 acres of VRM Class II, 91 acres of Class III, and 184 acres of Class IV (Table 18). Approximately 93 acres of the transmission line route are located in VRM Class II lands designated with no surface occupancy, but all of these sections are located parallel to existing transmission lines. The transmission line route for Alternative B would parallel portions of the existing 345 kV and 230 kV transmission line routes, but includes about 9.8 miles of new route that does follow an existing transmission line corridor. The portion of the new

transmission line route outside of existing corridors is primarily VRM Class III lands south of Rifle and Class II lands east of Parachute. Visibility of a new transmission line south of Rifle would be limited (Figures 3, 4, and 5), while portions of the new alignment would be visible from I-70 and County Road 301.

The transmission line route under Alternative B would have a greater visual impact than Alternative A because of the greater length of line located outside the corridor of existing lines. As with Alternative A, the transmission line would be visible from several county and BLM roads and scattered rural residencies. The same mitigation measures applied for Alternative A would also minimize impacts to the visual character of the landscape and maintain VRM Class objectives under Alternative B.

Mitigation

In order to maintain a natural looking landscape and comply with VRM Class II, III, and IV objectives, the following design features would be incorporated:

- Weathered steel structures would be used to reduce reflectivity and visibility.
- Thinning and feathering of adjacent vegetation would be incorporated when trimming vegetation adjacent to the transmission line. Proposed vegetation clearing would be minimal (maximum of 20 feet by 40 feet per pole structure). PSCo would coordinate with BLM to identify the location and extent of any vegetation clearing used to blend vegetation and maintain the natural lines of vegetation borders.
- Temporary disturbances would be reclaimed following construction.

Figure 3. Viewshed Analysis from Interstate 70

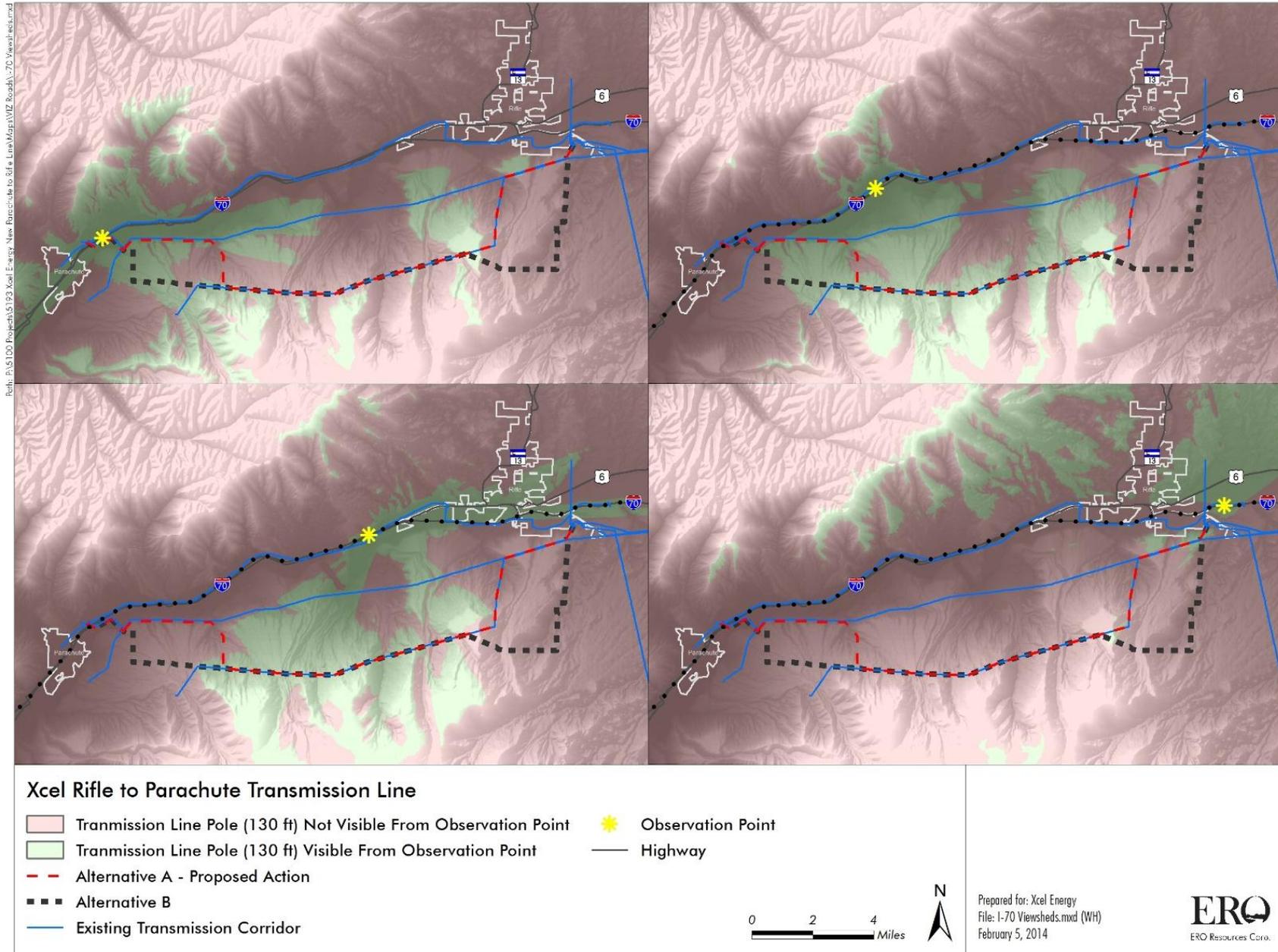


Figure 4. Viewshed Analysis from County Road 301

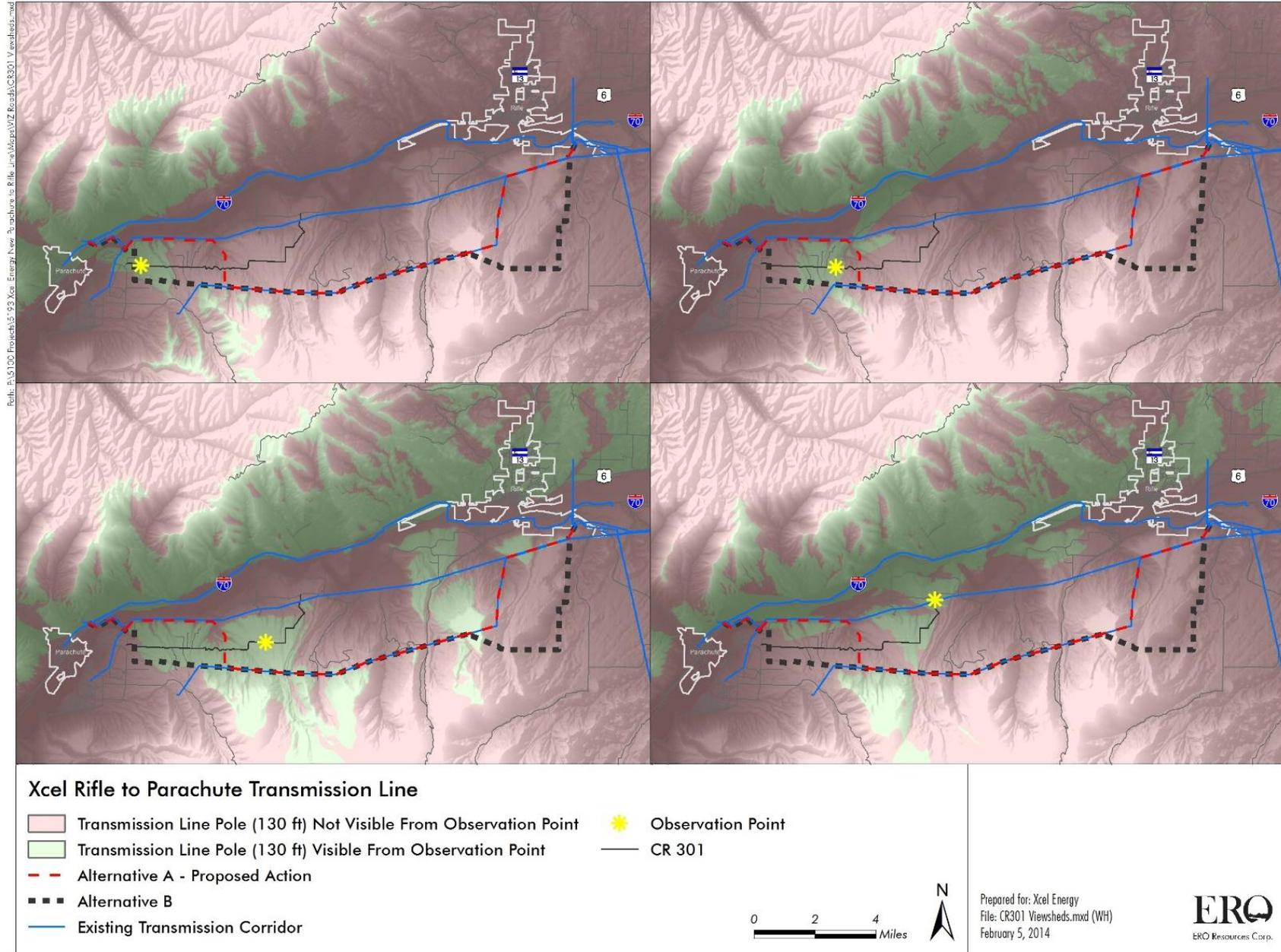
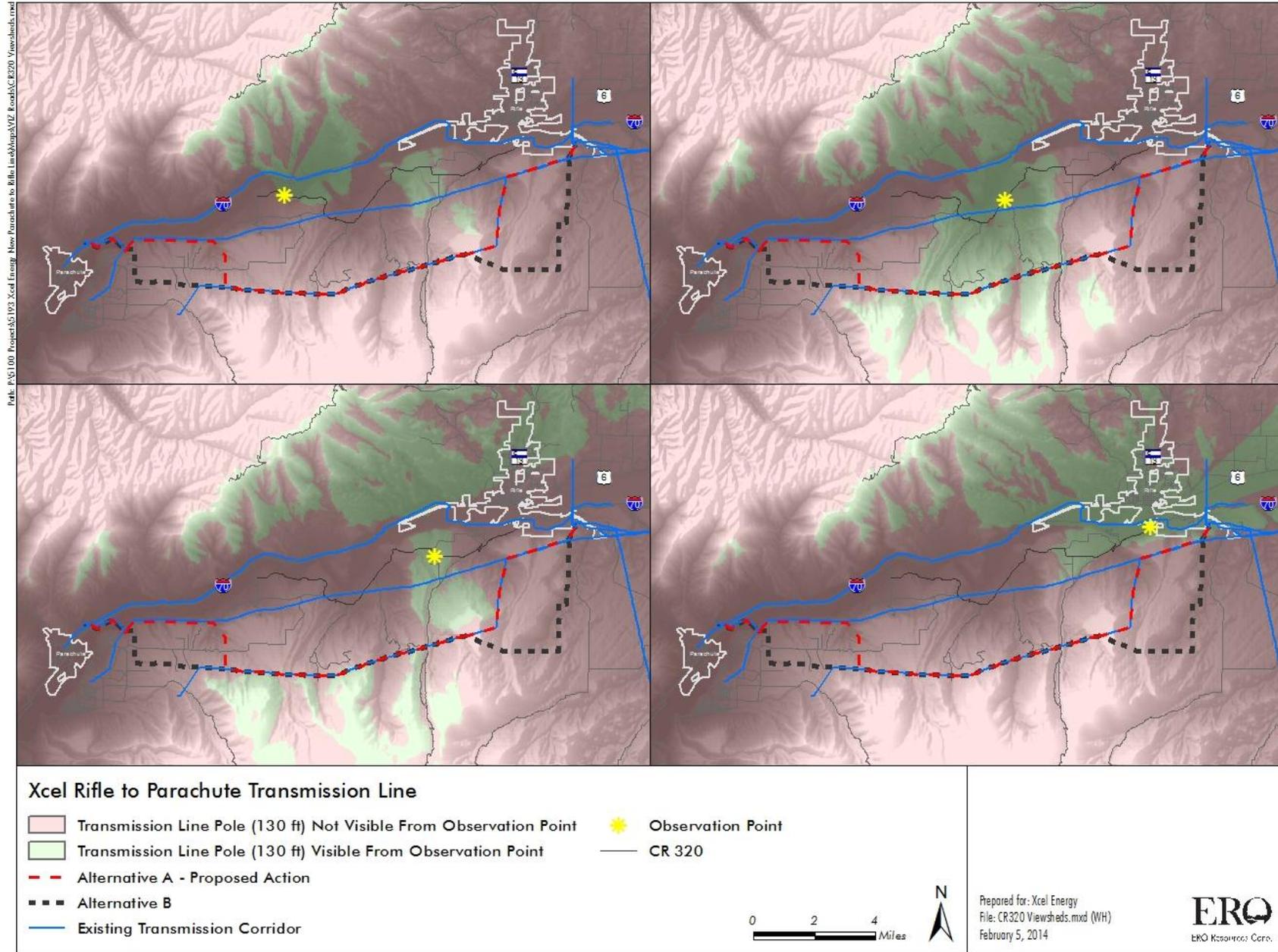


Figure 5. Viewshed Analysis from County Road 320



Wastes, Hazardous or Solid

Affected Environment

Existing hazardous materials in the project area may occur at oil and gas operations (i.e., storage of natural gas, fuels, produced water, and other potentially hazardous materials), farms or ranch operations (herbicides, pesticides, and fuel), or industrial sites (storage yards and other sites). There are no landfills or other known concentrations of potentially hazardous materials in the project area. Staging areas for fueling equipment have been surveyed for environmental concerns and have been selected on private land to avoid sensitive areas. Project design criteria have been provided to minimize the potential of hazardous material spills and trash from occurring on public lands.

Environmental Effects

No Action:

Under the No Action alternative no impacts to the environment would occur due to potential fuel and lubricant spills or the introduction of solid waste.

Effects Common to Action Alternatives

Construction activities would require use of vehicles and equipment using fuels, hydraulic fluid, and lubricants. In the event of a spill, there is the potential for contaminants to be transported to soils or surface water, which could negatively impact those resources. In addition, construction related solid waste products may be generated from materials and supplies used for installation of structures and electrical lines. No impacts from hazardous or solid waste are anticipated. PSCo would comply with all applicable federal, state, and local laws and regulations regarding the use, storage, and disposal of any toxic or hazardous material or solid waste. Construction trash and debris would be removed following completion of the project.

Alternative A (Proposed Action) and Alternative B

Potential impacts associated with use of hazardous material and waste would be similar for both alternatives as described above.

Mitigation

All equipment on the project would be maintained in a clean and well-functioning state to avoid or minimize contamination from mechanical fluids. All equipment would be checked daily. Fuels and lubricants would be stored in appropriate containers and refueling would occur in designated areas at a minimum of 100 feet from any stream channels. A hazardous spill plan would be in place, stating what actions would be taken in the case of a spill, notification measures, and preventive measures to be implemented, such as the placement of refueling facilities, storage, and handling of hazardous materials.

Wildlife: Aquatic / Fisheries

Affected Environment

Several perennial drainages provide limited aquatic habitat in the project area. The Colorado River is on the western end of the project area. Perennial or intermittent drainages tributary to

the Colorado River include West Mamm Creek, Beaver Creek, Porcupine Creek, Cache Creek, Cottonwood Creek, and Battlement Creek. Some occurrences of greenback cutthroat trout have been documented within portions of these tributaries—specifically, Beaver Creek and Cache Creek (NDIS 2013).

Environmental Effects

No Action Alternative

Under the No Action Alternative, there would be no impacts to aquatic/fishery resources.

Effects Common to Action Alternatives

There would be no poles placed within waterways or other aquatic habitat as part of either Action Alternative. Some indirect impacts could result from erosion created by surface disturbance, as surface disturbance increases the risk of sedimentation into drainages. Sedimentation can impact aquatic habitat and fisheries by altering important foraging and reproductive habitat. It is anticipated that Design Features included in the Proposed Action would prevent sedimentation and avoid all impacts to aquatic resources.

Mitigation

Pole placement is flexible, and would be altered to avoid aquatic habitat or sensitive areas. Reclamation, including reseeding of disturbed areas, would occur as soon as possible following construction. In addition, the Stormwater Management Plan would prevent erosion/sedimentation effects into area drainages.

Analysis on Public Land Health Standard 3 for Plant and Animal Communities (partial, see also Special Status Species; Vegetation; and Wildlife, Terrestrial)

Public Land Health Standard 3 is currently being met for the project area. The Proposed Action would potentially have minor indirect impacts to project area aquatic habitat, and would not jeopardize the viability of any aquatic vertebrate species. The project is not anticipated to affect habitat condition, utility, or function or have discernible adverse effects on species abundance or distribution at any landscape scale. Public Land Health Standard 3 would continue to be met, following project implementation.

Wildlife: Migratory Birds

Affected Environment

BLM Instruction Memorandum No. 2008-050 provides guidance toward meeting the BLM responsibilities under the Migratory Bird Treaty Act (MBTA) and the Executive Order (EO) 13186. The guidance directs Field Offices to promote the maintenance and improvement of habitat quantity and quality and to avoid, reduce or mitigate adverse impacts on the habitats of migratory bird species of conservation concern to the extent feasible, and in a manner consistent with regional or statewide bird conservation priorities. The 1988 amendment to the Fish and Wildlife Conservation Act mandates the U.S. Fish and Wildlife Service (USFWS) to “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species

Act (ESA) of 1973.” The “Birds of Conservation Concern” (FWS 2008) is the most recent effort to carry out this directive.

Under the MBTA, birds including non-migratory resident birds and true migratory birds (excluding managed game birds, common pigeon (a.k.a. "rock dove"), house sparrow (a.k.a. "English sparrow"), and European starling) are protected. The MBTA prohibits the “take”—including harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct—of protected species. The USFWS interprets “harm” and “kill” to include loss of eggs or nestlings due to abandonment or reduced attentiveness by one or both adults as a result of disturbance by human activity, as well as physical destruction of an occupied nest.

The administrative area of the CRVFO including portions of Eagle, Garfield, Pitkin, Routt, Mesa and Rio Blanco counties is within the Southern Rockies/Colorado Plateau Bird Conservation Region (BCR). The 2008 list of Birds of Conservation Concern (BCC) include the following:

Table 19. 2008 list of Birds of Conservation Concern.

| Species (<i>Scientific Name</i>) | Habitat Description | Potential to Occur in Project Area |
|--|---|---|
| American bittern (<i>Botaurus lentiginosus</i>) | Marshes and wetlands; ground nester. | Yes |
| Bald eagle (<i>Haliaeetus leucocephalus</i>) | Nests in forested rivers and lakes; winters in upland areas, often with rivers or lakes nearby. | Yes |
| Bendire's thrasher (<i>Toxostoma bendirei</i>) | Desert, especially areas of tall vegetation, cholla cactus, creosote bush and yucca, and in juniper woodland. | No |
| Black rosy-finch (<i>Leucosticte atrata</i>) | Breeds in Alpine tundra; winters in fields and man-made structures | No |
| Brewer's sparrow (<i>Spizella breweri</i>) | Summer resident that primarily breeds in sagebrush-grass stands and shrublands. | Yes |
| Brown-capped rosy-finch (<i>Leucosticte australis</i>) | Alpine meadows, cliffs, and talus and high elevation parks and valleys. | No |
| Burrowing owl (<i>Athene cunicularia</i>) | Open grasslands and low shrublands often in association with prairie dog colonies; nests in abandoned burrows created by mammals; short vegetation. | No |
| Cassin's finch (<i>Carpodacus cassinii</i>). | Open montane coniferous forests. | No |
| Chestnut-collared longspur (<i>Calcarius ornatus</i>) | Open country including mountain meadows, high deserts, valleys, and plains; breeds/ nests in alpine areas near rock piles and cliffs. | No |
| Ferruginous hawk (<i>Buteo regalis</i>) | Open, rolling and/or rugged terrain in grasslands and shrubsteppe communities; also grasslands and cultivated fields; nests on cliffs and rocky outcrops. | Yes |
| Golden eagle (<i>Aquila chrysaetos</i>) | Open country, grasslands, woodlands, and barren areas in hilly or mountainous terrain; nests on rocky outcrops or large trees. | Yes |

| Species (<i>Scientific Name</i>) | Habitat Description | Potential to Occur in Project Area |
|--|---|------------------------------------|
| Grace's warbler (<i>Dendroica graciae</i>) | Breeds in ponderosa pine forests. | No |
| Grasshopper sparrow (<i>Ammodramus savannarum</i>) | Open grasslands and cultivated fields. | Yes |
| Gray vireo (<i>Vireo vicinior</i>) | Open pinyon-juniper woodlands. | Yes |
| Gunnison sage grouse (<i>Centrocercus minimus</i>) | Sagebrush communities for hiding and thermal cover, food, and nesting; open areas with sagebrush stands for leks; sagebrush-grass-forb mix for nesting; wet meadows for rearing chicks. | No |
| Juniper titmouse (<i>Baeolophus ridgwayi</i>) | Pinyon-juniper woodlands, especially juniper; nests in tree cavities. | Yes |
| Lewis's woodpecker (<i>Melanerpes lewis</i>) | Open woodland, often logged or burned, including oak, coniferous forest (often ponderosa), riparian woodland, and orchards, less often in pinyon-juniper. | Yes |
| Long-billed curlew (<i>Numenius americanus</i>) | Lakes and wetlands and adjacent grassland and shrub communities. | Yes |
| Mountain plover (<i>Charadrius montanus</i>) | High plain, cultivated fields, desert scrublands, and sagebrush habitats, often in association with heavy grazing, sometimes in association with prairie dog colonies ; short vegetation. | Yes |
| Peregrine falcon (<i>Falco peregrines</i>) | Open country near cliff habitat, often near water such as rivers, lakes, and marshes; nests on ledges or holes on cliff faces and crags. | Yes |
| Pinyon jay (<i>Gymnorhinus cyanocephalus</i>) | Pinyon-juniper woodland. | Yes |
| Prairie falcon (<i>Falco mexicanus</i>) | Open country in mountains, steppe, or prairie; winters in cultivated fields; nests in holes or on ledges on rocky cliffs or embankments. | Yes |
| Snowy plover (<i>Charadrius alexandrinus nivosus/tenuirostris</i>) | Sparsely vegetated sand flats associated with pickleweed, greasewood, and saltgrass. | No |
| Veery (<i>Catharus fuscescens</i>) | Dense riparian thickets and hillside brush near streams. | Yes |
| Willow flycatcher (<i>Empidonax traillii</i>) | Riparian and moist, shrubby areas; winters in shrubby openings with short vegetation. | Yes |
| Yellow-billed cuckoo (<i>Coccyzus americanus</i>) | Riparian, deciduous woodlands with dense undergrowth; nests in tall cottonwood, mature willow riparian, moist thickets, orchards, abandoned pastures. | No |

Source: Kingery 1998.

The project area provides both foraging and nesting habitat for a variety of migratory birds that summer, breed, winter, or migrate through the area. The habitat diversity provided by vegetation communities in the project area (see *Plants: Vegetation, Wetlands and Riparian Zones* section), support many bird species. Species such as the pinyon jay, juniper titmouse, and Lewis's woodpecker are characteristically found in pinyon/juniper woodlands, the most common vegetation type in the project area.

Species observed during field surveys included, but were not limited to: mountain bluebird, juniper titmouse, pinyon jay, sage sparrow, sage thrasher, common raven, peregrine falcon, golden eagle, bald eagle, red-tailed hawk, Swainson's hawk, sharp-shinned hawk, American kestrel, turkey vulture, oriole, spotted towhee, rock pigeons, great-horned owl, black-billed magpie, and other sagebrush/pinyon-juniper obligate species.

Raptor and passerine nest structures were also observed and documented within the project area. A majority of nests occurred in areas with minimal development or human disturbance. Large expanses of oakbrush, cliffs, transmission-line poles and towers, mature cottonwood trees, and pinyon-juniper woodlands were common locations for nests. Many bird species were also observed foraging throughout the project area near water sources such as the Colorado River, Beaver Creek, Cottonwood Creek, Porcupine Creek, Cache Creek, Spruce Creek, and Battlement Creek; and near man-made agricultural water sources such as irrigation ditches or stock ponds. The Colorado River, at the west end of the project area, supports the greatest diversity and abundance of MBTA/BGEPA species and habitat. Eight active nests were documented within 1 mile of the project area during Spring 2013 (golden eagle, great-horned owl, red-tailed hawk, bald eagle (3), osprey (2)).

Environmental Effects

No Action Alternative

Under the No Action Alternative, construction would not take place and there would be no impact to migratory birds.

Effects Common to Action Alternatives

Potential effects to migratory birds in the project area include temporary construction impacts from noise and human disturbance, permanent loss of foraging/breeding habitat, and permanent hazards from powerlines. Many of the potential adverse impacts are mitigated by the design features and mitigation measures proposed for the project, including clearing and construction outside of the nesting season and "avian friendly" powerline design. Birds that are present during the transmission line construction would likely move to other adjacent woodlands to forage and roost. The overall impact on habitat availability would be negligible. Construction activities would disturb little acreage; therefore, reductions in prey species abundance would be minimal and are not anticipated to adversely affect raptor populations.

Disturbance to vegetation communities that provide foraging and breeding habitat from structure footprints is shown in Table 16 and described in the *Vegetation* section. During summer 2013 surveys, several active and inactive raptor nests, including 3 bald eagle, 2 unknown raptors and 1 red-tailed hawk were observed within the portion of the transmission line corridor common to both alternatives. A great blue heron rookery and foraging area is located at the west end of the project area, along the Colorado River about ½ mile south of the proposed transmission line tie-in to the existing Parachute substation.

Alternative A (Proposed Action)

One golden eagle nest, one bald eagle nest, and one red-tailed hawk nest are located along the portion of the transmission line unique to Alternative A.

Alternative B

No nests were observed along the portion of the transmission line unique to Alternative B. Alternative B is slightly longer than Alternative A, and therefore would have slightly more overall disturbance to raptors and migratory birds.

Mitigation

Clearing activities are proposed to occur outside the breeding season for migratory birds. Construction activities near known and active raptor nesting areas would occur outside the breeding season for those raptors. Recommended seasonal and spatial buffer restrictions for activities near active nests, beyond those that have historically occurred in the project area (including driving on nearby roads, normal maintenance activities, etc), are as follows:

- Red-tailed hawk: Avoid 0.33 mile around active nests (nesting season is about February 15 to July 15).
- Golden eagle: Avoid 0.50 mile around active nests (nesting season is about December 15 to July 15).
- Bald eagle: Avoid 0.50 mile around active nests (nesting season is about October 15 to July 31).
- Osprey: Avoid 0.25 mile around active nests (nesting season is about April 1 to August 31). Note that many osprey nest in immediate proximity to human disturbance, such as interstate highways, towns, or ballfields. Active osprey nests within intensive human activity areas do not require seasonal avoidance.

Direct impacts to raptors include mortality due to electrocutions, collisions and nest construction. Following “Suggested Practices for Avian Protection on Powerlines: State of the Art, 2006” (APLIC 2006) would reduce the likelihood of impacts from the powerline itself.

Wildlife: Sensitive, Threatened, and Endangered

Affected Environment

According to the latest species list from the U. S. Fish and Wildlife Service (FWS 2013), ten federal listed threatened, endangered, and candidate species occur within Garfield County (Table 20). As shown in the table, there are no known populations or suitable habitat for birds or mammals in the project area. Beaver Creek and Cache Creek are known to support populations of the greenback cutthroat trout, a threatened species. The four endangered Colorado River fishes (razorback sucker, bonytail chub, Colorado pikeminnow, and humpback chub) occur within the Colorado River basin downgradient of the project area. Designated Critical Habitat for the razorback sucker and Colorado pikeminnow encompasses the Colorado River, including the 100-year floodplain, from the State Highway 13 Bridge in Rifle to the Colorado-Utah state line. There are no known populations of the humpback chub and bonytail in the project area, and the closest known habitat is approximately 80 miles downstream from the project area.

Table 20. Federal Listed Threatened, Endangered, and Candidate Species with Potential to Occur in Garfield County.

| Name (<i>Scientific name</i>) | Status | Habitat | Potential Habitat in Project Area |
|--------------------------------------|---------------|-----------------------------|--|
| Birds | | | |
| Yellow-billed cuckoo | Candidate | Old growth riparian forests | No; Riparian forests along |

| Name (<i>Scientific name</i>) | Status | Habitat | Potential Habitat in Project Area |
|--|------------|---|---|
| (<i>Coccyzus americanus</i>) | | with dense understories. | Colorado River are open, lacking dense understory. |
| Mexican spotted owl (<i>Strix occidentalis lucida</i>) | Threatened | Mature montane forests, shady canyons, and steep canyons. | No; no suitable canyon habitat. |
| Greater sage-grouse (<i>Centrocercus urophasianus</i>) | Candidate | Large expanses of sagebrush with a diverse understory. | No known populations; historic habitat only. |
| Fish | | | |
| Greenback cutthroat trout (<i>Oncorhynchus clarki stomias</i>) | Threatened | Gravelly headwater streams or mountain lakes. | Beaver and Cache Creek support populations. |
| Razorback sucker (<i>Xyrauchen texanus</i>) | Endangered | Medium to large rivers with swift, turbulent waters in the Colorado River system. | Colorado River and floodplain downstream of project area. |
| Bonytail chub (<i>Gila elegans</i>) | Endangered | Medium to large rivers with swift, turbulent waters in the Colorado River system. | Colorado River and floodplain downstream of project area. |
| Colorado pikeminnow (=squawfish) (<i>Ptychocheilus lucius</i>) | Endangered | Large, warm and swift rivers in the Colorado River system. | Colorado River and floodplain downstream of project area. |
| Humpback chub (<i>Gila cypha</i>) | Endangered | Medium to large rivers with swift, turbulent waters in the Colorado River system. | Colorado River and floodplain downstream of project area. |
| Mammals | | | |
| Canada lynx (<i>Lynx canadensis</i>) | Threatened | Spruce/fir forests (upland woodland) | No; unsuitable habitat. |
| North American wolverine (<i>Gulo gulo luscus</i>) | Candidate | Alpine, boreal, and arctic habitats | No; unsuitable habitat. |

Source: FWS 2013.

Environmental Effects

No Action Alternative

Under the No Action Alternative, construction would not take place and there would be no impact to federally listed or candidate species.

Effects Common to Action Alternatives

Due to the flexibility in placement of powerline structures, as well as use of existing access roads only, potential effects to federally listed or candidate species would be limited to potential discharge of sediment to waterways in the project area. However, the risk of sediment discharge is very low due to the small footprint of new disturbance and PSCo's Stormwater Management Plan and Reclamation Plan. A maximum of about 20 feet by 40 feet (0.02 acre) would be disturbed at each structure location, and would be reclaimed as quickly as possible. The Stormwater Management Plan includes protective measures for drainages in the project corridor.

Alternative A (Proposed Action) and Alternative B

The two action alternatives would cross Beaver Creek, Cache Creek, and the Colorado River within the shared transmission line alignment sections; therefore the alternatives would have the same effect on federally listed or candidate species.

Mitigation

PSCo's Stormwater Management Plan and Reclamation Plan would minimize the risk of inadvertent discharge of sediment in waterways that support populations of greenback cutthroat trout, razorback sucker and Colorado pikeminnow.

Analysis on Public Land Health Standard 4 for Special Status Wildlife Species

Habitat conditions within this area appear suitable for special status animal species known or likely to occur (BLM 2005 and 2009). However, the landscape in the project area is being fragmented due to extensive natural gas development, including roads, well pads, pipelines, compressor stations, tank farms and other surface facilities. The potential to impact some species would increase as development continues. The Proposed Action, due to its small, discontinuous disturbance footprint, is not anticipated to increase fragmentation or increase sediment loads. The Proposed Action would not jeopardize the viability of any population of special status animal species due to habitat loss, modification, fragmentation, or indirect effects. The project would have no significant consequence on habitat condition, utility, or function or any discernible effect on species abundance or distribution at a landscape scale. Public land health standard 4 would continue to be met.

Wildlife: Terrestrial

Affected Environment

The varied vegetation communities, topography, and water sources within the project area provide habitat for diverse wildlife, both native and non-native. Most species are dependent on project area streams, springs, and ponds and use riparian zones as travel corridors. Existing human intrusions, including towns (Parachute/Battlement Mesa, Rifle, and Rulison), dispersed rural residential development (particularly on Grass Mesa south of Rifle and Morrisania Mesa east of Battlement Mesa), farming and ranching operations, oil and gas development, and the network of roads, pipelines and transmission lines that underpins human activities have influenced the existing patterns of wildlife use. Human intrusions within the project area have caused direct habitat impacts, general habitat fragmentation and creation of movement barriers, and mortality from vehicle collisions, wildlife control efforts, hunting, introduction of domestic animals that carry disease, compete with, or predate native animals, and other direct and indirect impacts. In Colorado, wildlife habitat is mapped on the Natural Diversity Information Source (NDIS) by Colorado Parks and Wildlife, CPW (formerly Colorado Division of Wildlife, CDOW).

Mammals

Small mammals likely to inhabit the project area include cottontail rabbits (*Sylvilagus* sp.), rock and ground squirrel (*Spermophilus* sp.), voles, shrews, mice, packrats, and small predators including raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and weasel (*Mustela*

frenata). The Colorado River within the project area is mapped as river otter (*Lutra canadensis*) overall range (NDIS 2013). White-tailed prairie dog (*Cynomys leucurus*) habitat may occur in the project area. Many large mammals, including predators (black bear (*Ursus Americanus*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), fox (*Vulpes vulpes*), and mountain lion (*Felis concolor*)) likely are common in the project area. Species observed during field surveys include golden-mantled ground squirrel, rabbit, and coyote. Sign (scat and other evidence) was observed for coyote and black bear within the southern portions of the project area. Black bear, bobcat, and mountain lion are more common in forested or scrub-shrub habitats, while coyote and fox are generally more tolerant of human disturbance and occur at lower elevations in grasslands and shrublands. Black bears are omnivores and feed on berries, acorns and roots common in Gambel oak shrublands in the project area.

Ungulates

The shrublands and grasslands within the project area provide habitat for mule deer (*Odocoileus hemionus*) and elk (*Cervus elaphus*) (NDIS 2013). Moose (*Alces alces*) overall range extends along the southern edge of the project area; however there are no known winter or summer concentration areas, and the project area is generally too low in elevation to be suitable moose habitat. The entire project area is within elk winter range, and winter concentration areas and severe winter range occurs at lower elevations and along the Colorado River. Elk summer range is generally south of the project area. Two small areas of elk production/calving habitat are mapped by NDIS, south of the project area between Porcupine Creek and Cottonwood Creek. Most of the project area is also within mule deer winter range, with the east and west end of the project at lower elevations within critical winter range, severe winter range, and winter concentration areas. A mule deer resident population occurs along the Colorado River, generally south of the project area but intersecting the western end. The portion of Cache Creek within the project corridor has been identified as a mule deer migration corridor. No mule deer production areas are mapped by NDIS in the project area. Both mule deer and elk were observed during field surveys, and sign (scat) was abundant throughout the project area.

Reptiles and Amphibians

A variety of herptiles likely occur in the project area, including frogs and toads such as Great Basin spadefoot (*Spea intermontana*), Woodhouse's toad (*Bufo woodhousii*) at lower elevations near water sources; northern leopard frog (*Rana pipiens*) throughout the project area near perennial water; and non-native bullfrog (*Rana catesbeiana*) near permanent still water. Lizards and snakes that are commonly found in the project area include collared lizard (*Crotaphytus collaris*), short-horned lizard (*Phrynosoma hernandesi*), tree lizard (*Urosaurus ornatus*), whiptail (*Cnemidophorus* sp.), bullsnake (*Pituophis catenifer*), garter snake (*Thamnophilis elegans*), and racer (*Coluber constrictor*) (Hammerson 1999). Whiptails, tree lizards, racers and bullsnakes were observed in the project area during vegetation surveys.

Environmental Effects

No Action Alternative

Under the No Action Alternative, construction would not take place and there would be no impact to terrestrial wildlife species.

Effects Common to Action Alternatives

Under both Action alternatives, the temporary noise and human disturbance during construction would cause terrestrial wildlife to avoid the project area. However, the project area has a December 1 to April 30 timing stipulation for big game winter range protection (GS-TL-01). This timing restriction would protect big game and other species wintering in the project area. Following construction, terrestrial wildlife would resume their normal use of the project area. The new powerline corridor would have minimal habitat disturbance and would not affect habitat connectivity across the corridor. Use of existing road corridors would minimize clearing footprints. Surface disturbance and vehicle traffic could increase the likelihood of noxious weeds spreading in the project area and competing with more desirable species.

Alternative A (Proposed Action) and Alternative B

Both alternatives would have similar disturbance impacts. Habitat disturbance would be limited to pole locations.

Mitigation

As described in the *Reclamation* section (in project description beginning on page 7), all surface disturbances would be seeded with a mixture of native grasses adapted to the site to help prevent the invasion of noxious weeds and to reestablish native, perennial vegetation on the site. Any noxious weeds that become established in the project area would also be controlled by the applicant. The seed mixes are presented in **Error! Reference source not found.**, Table 3, and Table 4.

Analysis on Public Land Health Standard 3 for Plant and Animal Communities (partial, see also Special Status Species, Vegetation, and Aquatic Wildlife)

The Proposed Action would not jeopardize the viability of any terrestrial vertebrate species. The project would have no significant consequences on habitat condition, utility, or function or discernible adverse effects on species abundance or distribution at any landscape scale. Public Land Health Standard 3 would continue to be met in the project area.

CUMULATIVE EFFECTS

NEPA regulations require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects can result from individually minor, but collectively significant, actions taking place over a period of time.

Cumulative impacts were determined by combining the impacts of either the proposed action or no action alternative with other past, present, and reasonably foreseeable future actions. The geographic scope of the analysis includes actions near the project area where overlapping resource impacts are possible. The temporal scope includes past actions that have influenced the current condition of the resource and reasonably foreseeable actions within a range of approximately 10 years in the future. Past, present, and reasonably foreseeable future actions

were then assessed in conjunction with the impacts of the alternatives to determine if they would have any added adverse or beneficial effects on a particular resource.

Past actions near the project area includes a variety of land uses: residential and industrial development near the communities of Parachute and Rifle; Interstate Highway 70; a railroad; a network of county, BLM and private roads; oil and gas development on private and BLM lands; existing electrical transmission lines; farming and ranching operations; and other land management actions by the BLM and private landowners. Private land development is expected to continue in the future near Parachute and Rifle, as well as on less developed rural lands. Additional oil and gas exploration and development, including construction of well pads, roads, and pipelines are reasonably foreseeable future actions in the region. Vegetation management, land clearing, prescribed fires, and other land management activities are possible on BLM and private lands in the future. The following provides a discussion of cumulative effects for each resource.

Impacts to several resources considered in this EA would be negligible, and are not addressed further in this cumulative impacts section. Those resources are: Native American religious concerns, environmental justice, paleontology, livestock and grazing management, and wastes: hazardous or solid.

Access and Transportation – Increased traffic from construction of a new transmission line would have a short-term adverse contribution on traffic on county and BLM roads in the project area when added to the traffic from oil and gas operations and other local road use. There would be no long-term adverse cumulative effect following construction because no new roads would be built and access to existing roads would be maintained. Periodic access for transmission line maintenance would be infrequent with minimal impact on access or traffic.

Air Quality – Construction related emissions from vehicles and equipment under either of the action alternatives would have a negligible short-term contribution to regional air quality and no long-term adverse cumulative impact from transmission line operations. Under the no action alternative, use of natural gas instead of electricity for oil and gas operations would result in an increase in volatile organic carbons, carbon dioxide, carbon monoxide and other emissions that would have a minor contribution to the cumulative effects of other emission sources that affect regional air quality.

Cultural Resources – No direct cumulative impacts to historic properties are anticipated because the project would avoid disturbance to known cultural resources. Cumulative impacts to cultural resources may occur from the incremental and successive visual effect of adding a new transmission line to the landscape. However, existing visual intrusions to the landscape include the I-70 highway corridor, oil and gas facilities, transmission lines, and other industrial facilities. Assessing the visual and cumulative effect of new transmission line on historic properties takes into account the integrity of the historic cultural landscape, the scale of previous intrusions, and the type of historic properties affected and the criteria for which the properties are eligible for the NRHP. Because of the scale of previous alterations to the historic cultural landscape from industrial development, the addition of new transmission line to an existing corridor would introduce negligible to minor visual effects to historic properties. Archaeological resources are not affected by visual effects.

Fire/Fuels Management – Installation of the proposed transmission line under either action alternative would require minimal vegetation clearing around pole structures and under the line. Vegetation removal would not substantially contribute to regional fuels management or the risk of wildfire. Thus, there would be no measurable beneficial or adverse cumulative effect on fire/fuels management.

Floodplains – The possible installation of several transmission line poles in the Colorado River floodplain near Parachute under the action alternatives would have a negligible contribution to adverse cumulative effects from other existing developments in the floodplain. There are no known future developments in the Colorado River floodplain near Parachute that would contribute to cumulative effects.

Health and Safety – Operation of a new transmission line under the action alternatives would not measurably contribute to health and safety cumulative effects in the region. Electromagnetic fields generated by transmission lines diminish rapidly with distance and would not add to public health risks from existing transmission lines. Construction and operation of the transmission line would adhere to standard safety protocols to minimize risks to public and worker health and safety. There would be no cumulative effects to health and safety under the No Action alternative.

Noise and Electromagnetic Interference – Construction of a new transmission line under both action alternatives would result in a short-term adverse contribution to ambient noise levels from construction equipment, vehicles, and helicopter use. There would be a negligible long-term contribution to cumulative noise levels from periodic maintenance and operation of the transmission line. A new transmission line would add an additional source of electromagnetic interference to that generated by the existing 230 kV and 345 kV transmission lines in the project area. Any electromagnetic interference from a new transmission line would have a minor adverse contribution to cumulative effects from existing lines. Ongoing maintenance and the distance between the transmission line and residences would minimize potential adverse impacts.

Plants: Noxious Weeds, Vegetation, Sensitive, Threatened and Endangered – Construction of a new transmission line under the action alternatives would have a negligible contribution to cumulative adverse impacts to vegetation. The project would have a minimal effect on the spread of noxious weeds, due to the small impact footprint and use of existing roads for construction. The project also would have a negligible cumulative impact to overall vegetation communities. The project would contribute to cumulative effects to one sensitive species, Harrington's beardtongue. Cumulative losses, including the proposed transmission line, would not threaten the viability of the species, cause the species to be jeopardized, or result in a trend toward Federal listing. Suitable habitat would be avoided to the extent possible when locating structures and biological monitoring would further assist in reducing impacts where avoidance is not feasible. Harrington's beardtongue was commonly found on about 80 acres within the project and minor potential impacts to individual species would not adversely impact the population. The species was common in and around previous disturbance areas, including the existing 345 kV transmission line corridor and pad locations. Based on these observations, the species appears to recolonize disturbed areas and is somewhat tolerant of the types of disturbance associated with transmission line construction.

Recreation – Construction of a new transmission line under the action alternatives would have a minor short-term effects on recreation from noise and activities, but there would be no long-term adverse impact on access or use of public lands for recreation. Thus, there would be no long-term adverse cumulative effect to recreation under the action alternatives.

Socioeconomics – A new transmission line would result in both long and short-term beneficial cumulative effects related from construction spending and the additional electrical power that would support regional development and oil and gas operations in Garfield and Mesa counties. The No Action alternative would have a moderate adverse cumulative effect on the regional economy and oil and gas development from a shortage in power to support regional growth and economic activity.

Soils – The limited soil disturbance associated with installation of transmission line structures under the action alternatives would have a negligible contribution to cumulative adverse impacts from past and future road construction, oil and gas development, and other land disturbing activities in the region.

Visual Resources – Construction of a new transmission line under both action alternatives would result in a minor adverse cumulative effect to visual quality from the introduction of an additional man-made linear feature to the landscape. The cumulative visual impact from Alternative A would be less than Alternative B because the alignment would follow existing transmission line corridors to a greater extent. The permanent visible aspects of the project would not dominate the landscape and would be compatible with BLM’s visual resource management classifications. The visual impacts of a new transmission line would be reduced by avoiding new road construction, further consideration of where to site structures during final design, use of non-reflective poles, limited vegetation clearing, and revegetation of disturbed areas following construction.

Terrestrial and Aquatic Wildlife Species (including migratory birds and special status species) – Generally, cumulative impacts on wildlife result from surface disturbances and disruptive land uses and vary by species. Habitat type-conversion, degradation, fragmentation, and loss have significant adverse effects on wildlife but sometimes take years to manifest as population reductions. Quantified data on the existing and future extent of land uses are not available. However, where these land use activities occur, their contribution would result in some increased level of cumulative impact greater than the impacts of activities proposed or authorized by the BLM on BLM lands. While the approval of the power line would have negligible impacts on wildlife species, the proposal would incrementally add to other impacts (both on public lands and private lands) which are impacting wildlife habitat and species in the Rifle-Parachute area.

RESIDUAL EFFECTS

None.

4. Tribes, Individuals, Organizations, or Agencies Consulted

Public and agency scoping was initiated in January 2012 with discussions and correspondence with state, federal, and local agencies. Information packages with potential transmission line alignments were sent to agencies (see Table 21) and the public (see Appendix A), and PSCo established a project website to facilitate information access (<http://www.xcelenergy.com/rifle-parachute>). Three public meetings were held, and members of the public and representatives of local, state, and federal agencies attended.

Table 21. Mailing List for Scoping (Meeting Announcement) Letters Sent to Federal, State, and Local Agencies

| |
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| Board Of County Commissioners of Garfield County |
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|---|
| Colorado Parks and Wildlife |
| Federal Home Loan Mortgage Corporation* |
| Garfield County Planning Division |
| Garfield County School District 16 |
| Grand River Hospital District |
| Parachute, Town Of |
| Rifle, City Of |
| Rifle Fire Protection District |
| Secretary Of Housing And Urban Development* |
| United States Fish and Wildlife Service |

(*related to foreclosures within the project area)

5. List of Preparers

Members of the CRVFO Interdisciplinary Team who participated in the impact analysis of the Proposed Action and alternatives, development of appropriate mitigation measures, and preparation of this EA are listed in Table 22, along with their areas of responsibility.

Table 22. BLM Interdisciplinary Team Authors and Reviewers

| Name | Title | Areas of Participation |
|---|---|---|
| BLM-Colorado River Valley Field Office | | |
| Monte Senor | Realty, Rangeland Management Specialist | IDT Lead, Lands and Realty |
| Carla DeYoung | Ecologist | Vegetation, T/E/S Plants |
| Rusty Stark | Fire and Fuels Manager | Fire and Fuels |
| Greg Wolfgang | Planner | Visual Resources, Recreation, Access |
| Kristy Wallner | Rangeland Management Specialist | Invasive, Non-Native species (Noxious Weeds) |
| Erin Leifeld | Archaeologist | Cultural Resources, Native American Concerns |
| Pauline Adams | Hydrologist | Soil, Water, Air, Paleontology |
| Darren Long | Wildlife Biologist | Threatened and Endangered Wildlife, Migratory birds, Aquatic and Terrestrial Wildlife |
| David Epstein | Economist | Social and Economic |

THIRD PARTY NEPA PREPARER

The CEQ provides guidance for contracting NEPA documentation at 40 CFR 1506.5(b) and (c). “Third party contract” refers to the preparation of an EIS or EA by contractors paid by the applicant. Because the proposed land exchange was proposed by a Non-Federal party (i.e., the Proponents), the BLM determined that it is appropriate for a third-party contractor to be used for preparation of this EA. Contracting an environmental document does not in any way reduce or eliminate the BLM’s active role in the NEPA process; the BLM is responsible for all content within the EA document and the supporting materials, which must be included in the

administrative record. Additionally, the findings in this analysis are those of the BLM, not of the contractor, and the decision must reflect a review of this NEPA document.

A Memorandum of Understanding (MOU) was executed between the BLM and the Proponent, establishing the roles and responsibilities of each party, including the contractor. Among other things, the MOU specifies that all costs of using a contractor to prepare environmental documents will be borne by the Proponent. The MOU describes the responsibilities of the BLM and the Proponent in the administration of the MOU and in oversight of, and communication with, the contractor and the Proponent. The MOU is contained in the administrative record.

Table 23. Third Party NEPA Preparers

| Name | Title | Areas of Participation |
|----------------------|------------------------------------|---|
| ERO Resources | | |
| Aleta Powers | Project Manager | Vegetation, Wildlife, project oversight |
| Mark DeHaven | Senior Natural Resource Specialist | Recreation, Soils, wildfire, floodplains, socioeconomics, air quality, Visual |
| Denise Larson | Ecologist | Vegetation |
| Sean Larmore | Archaeologist | Cultural Resources |
| Adam Petry | Natural Resource Specialist | Raptors and Migratory Birds |
| Jennifer McLeland | Technical Editor | Editing |
| Wendy Hodges | GIS specialist | Mapping, impact analysis |

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Appendix A

Landowners 1 (Individuals, Families, Trusts)

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|---|
| Adams, Charlotte S |
| Alderman Susan Plasman |
| Allen Alton L Jr & Misty June |
| Allen Douglas P |
| Anderson Garland E & Diana M |
| Anderson, Mary R |
| Andromeda Cassiopeia Living Trust |
| Anselman, Todd S |
| Antes, Philip D & Marlea J |
| Antonelli, Charles S |
| Arnold, Alan |
| Austin, Donna L |
| Baker, Gregory L |
| Barbette, Jean Robert |
| Bartel, Kim A & Linda R |
| Bauer, George R |
| Beasley, Christopher D & Amy Lou |
| Bedford, Sarah S |
| Beecraft, Donald P & Susan A |
| Bell, Kenneth Wade & Allison Teague |
| Benjamin, Richard M & Shirley J |
| Berry, Roger L & Sharon B |
| Bevans-Backes, Katherine A |
| Bickley, Ann Burns |
| Binger, Daniel R & Kathryn E |
| Binnian, Holly D & William H |
| Birdsey, Rocky S & Susan B |
| Blackard, Scott R & Gerald T & Christie |
| Bogacz, Richard John & Linda M |
| Bortz, William |
| Bortz, William A |
| Bosely, Mary Anne |
| Botkin, Guy R & Roberta J |
| Bowker, Gary L Jr & Margaret |
| Bown, Jeffery H & Lee Ann |
| Boyles, Douglas R |
| Boyles, James K & Hilda R |
| Bradley, Jeffrey D & Melissa D |
| Brennan, Wesley A & Juanita M |

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| Briels, Mark & Debra |
| Brock, Rebecca L |
| Broderick, Donald F & Irene A |
| Broderick, John T & Jane H |
| Brown, Brent H & Dawn R |
| Brynildson, Bruce G & H Shirley |
| Brynildson, Scott W & Linda S |
| Buford, John L & Lavinia A |
| Burchfield, Billie G & Annie R |
| Burgess, Bryan K & Dawn |
| C&B Jewell Revocable Family Living Trust |
| Cameron, Fred Rex |
| Carlson, David V |
| Carr, Thomas & Price, Amy R |
| Cartwright, Russell E |
| Caskey, Lisa L |
| Castle, Noel J & Angela D |
| Causbie, Donald L & Violet M |
| Chance, Donald R & Annabelle M |
| Chartier, Andre P & Cheryl A |
| Chicoine, Daniel B & Penny L |
| Chrisley, James R & Rene T |
| Christensen, Danette E & Kip L |
| Christianson, Michael K & Jillene M |
| Church, Lucien H & Marilyn L |
| Clark, David E & Angela A |
| Clark, Wayne D & Nancy A |
| Cline, Patricia E |
| Closs, Daric H |
| Closs, George |
| Coelho, William M |
| Colborn, Harry R |
| Constine, John M & Sandra L |
| Cooke, Margaret |
| Cooley, Edward & Patricia |
| Coombs, Hayden & Harold & Zita J |
| Coombs, Roy H & Rhonda L |
| Cox, Daryl & Viktoria |
| Cox, Donald L & Connie |
| Crilly, Edward W & Monroe, Michael L |

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| Crocker, Damon |
| Crosby, Dylan |
| Crowhurst, William B & Kathy J |
| Crowley, Karen K |
| Cruz, Ernesto & Anna |
| Curran, John R |
| Dalrymple, Michael J |
| Daly, Jacqueline & Swift, Lawrence V |
| Daniels, George H Iv |
| Danner, Timothy & Lynette M |
| Davis, Tony & Chella |
| Day, David L |
| Derevensky, Paula |
| Derkash, Robert |
| Diaz, David R & Dian A |
| Dickey, Danette Jens |
| Dimento, Paul James & Elizabeth A |
| Dorr, Bryan D & Jennifer |
| Dotson Family Trust & |
| Duncan, Patrick & Murphy, Miranda |
| Durnil, Kenneth E & Marcia |
| Dwire, Mary Ann & Woody, Wilbur G |
| Eggen, James |
| Elliott, Susan B Revocable Trust |
| Else, Kenneth R & Dorothy M |
| Enyeart, Jack & Robert |
| Equity Trust Co-Cust. Fbo James R Drolet Ira |
| Erickson, C Brian |
| Ertl, Jann |
| Evans, Jack T Jr |
| Evers, Kent M |
| Ewing, Lynda L |
| Fabrocini, William |
| Faldas, Gary M |
| Faulkner, Robert John & Roberta K |
| Fenton, Matthew & Tiffany Ann |
| Finn, Harvey B & Gates, John S |
| Firth, Dennis H |
| Firth, Samuel Dennis |
| Fletcher, Karrie & Jason |
| Flores, Ray |
| Foster, Mary Diane |

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|---|
| Franz, Bert |
| Freeman, Carla Jeanice & Joe E |
| Fritzlan, Thomas J |
| Frontella, Gilbert |
| Furr, David L |
| Fusilier, Joshua D |
| Fusilier, Louis Jr & Helen C |
| Gabriel, Curtis Alonzo Revocable Trust & Pauline Cora Gabriel Revocable Trust Dated 10/5/2001 |
| Gallo, Jaime |
| Gardner, Sharon I |
| Gentilcore, Judith R & Thomas |
| Gerleman, Grant D & Swisher, Kelli L |
| Gert, Jeannette Marie & William Fredrick & Michael Abel & Wayne Fredrick |
| Getter, Richard & Sandra Trust |
| Gibson, Rufus & Bonnie |
| Goad, Wendell W & Kalin |
| Goddard, Keith A & Spaulding-Goddard, Vicky L |
| Gold, Jeffrey J & Terri R |
| Goldsborough, Miles B, Trust |
| Goldsborough, Neal |
| Goodman, Johnny R & Linda A |
| Goossen, Jeffery N & Amanda |
| Graham, Clayton C & Kirk L |
| Graham, Kirk L & Clayton C |
| Graham, Linda N |
| Gray, Donald R & Arlene F Revocable Trust Dtd 3-26-99 |
| Gustafson, Alice A |
| Hagaman,Family Trust |
| Hagemann, Steven W |
| Hale, Kenneth A & Donna M |
| Hall, Thomas L & Elaine C Hanak- |
| Hamick, Thomas & Karen |
| Hamilton, Donald D & Vicki L |
| Hamilton, Theresa |
| Hammernik, Bernhard & Hauchwitz, Ida W |
| Hanko, Michael D & Terri A |
| Hannigan, John A Iii & Tarinna L |
| Hanson, Richard L & Patricia M |
| Harper, Jeffrey D & Melissa R |
| Harris, Leland E & Rhonda L |

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|---|
| Harris, Robert H & Pamela N |
| Hasenberg, Gregory J |
| Hauck, Robert A & Carolyn J |
| Heidemann, Wade L & Diane L |
| Helliwell, Derek P & Paula M |
| Henry, Phyllis L-Trustee Of The Gaylord J Henry Family Trust |
| Hertzke, Georgiana |
| Hess, Catherine M |
| Hicks, Barry J |
| Hileman, William R & Kay U |
| Hill, Kurt W & Kathryn M |
| Hirneisen, Ricky Lee & Donna Sue |
| Hoaglund, Edward J & Ida L |
| Hoepli, Susanna M |
| Hogelin, Thomas G & Pamela K |
| Hoggan, Bruce & Amelia |
| Hokanson, James R & Mary A |
| Holloway, Aric N & Deanna M |
| Holtz, Darin L & Katrina L |
| Holzer, Hans Ulrich |
| Hooker, Bobby G & Genevie E |
| Howard, Kenneth T & Glenda P |
| Huffman, Melvin L & Rose M |
| Huggard, Rex C & Maxine L |
| Hughes, Roxan Kim & Clement Frank & Charlotte Mae & Randal Kent |
| Hunter, Michael |
| Hyrup, Kent A & Terry L |
| Hyrup, Phyllis J |
| Inman, Paul F & Adelia J |
| Irigoyen, Ismelda |
| Isham, Jon C |
| Israel, Brent Gene |
| Jablonsky, Don W & Rosemary A |
| Jabs, Jason M & Kelli L |
| Jackson, James K. & V. Dianne |
| Jacobs, Karla E & Timothy |
| Jensen, John R & Cathrine A Rev Trust 3/31/2003 |
| Jewell, Chad B & Lori A |
| Jewell, William G & Maureen Louise |
| Johnson, David M & Anna R |
| Johnson, David M & Anna R & Johnson, David Lee |

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| Johnson, Dene M & Janet L |
| Johnson, Michael & Xiomy Jacquelyn |
| Johnson, Misty Dawn & Vicky L |
| Johnson, Robert J Jr & Linda L |
| Johnson, Sherry L |
| Jolly, Brian D & Christina J |
| Jones, William D & Karen L |
| Juhl, Jeffrey P & Marin A |
| Kadinger, Jesse & Yvonne |
| Kauffman, Diane M |
| Keane, Terry E |
| Kehm, John M Jr & Sharon A |
| Kehr, Robert V |
| Keller, Brenda |
| Kelly, Gary L & Stokvis, Bonnie L |
| Kerr, Michael K & Cynthia K |
| Kiang, Henry N & Marie J |
| Killian, Reno Richard & Shellum, Patricia Ann |
| King, Debbie |
| Kirby, Marty & Jodi |
| Klement, Ellen L |
| Knight, J Scott |
| Knight, James A |
| Knuth, Bruce G & Susan M |
| Koveleski, Ann |
| Kracht, Hank T & Dimarco Kracht, Kamron |
| Lagrange, Joseph R |
| Lange, Denise L |
| Lantz, Chad B |
| Lawrence, James L & Bonnie L |
| Layne, Juanita M |
| Lear, Charles E & Sally M |
| Lemon, James R |
| Leverich, Chris |
| Livingston, Janet & Charles |
| Locklear, Dannie P Sr |
| Long, Brett B & Yvonne E |
| Long, Ronald D & Robin R |
| Loy, Linda M |
| Lucero, Michael S |
| Lyells, Debra A |
| Mackey, Gregg |

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| Mackley, Arnold L & Darleen E |
| Macklin, Justin L & Nicole L |
| Maddocks, Douglas |
| Madeen, Harold L & Anne M |
| Maldonado, Jose N Reyes & Soto, Isidra Landeros |
| Mancuso, Christopher A & Janna |
| Mann, David E & Jeannine |
| Manuppella, Anthony L & Gail |
| Marbas, Laurie L & Patrick J |
| Martin, James E & Pamela K |
| Mattis, Judith K & Candow, John Gordon |
| May, Ryan A |
| Mayo, Joanne H |
| Mccarty, Patrick W & Kathryn L |
| Mccurdy, Richard & Michelle |
| Mcgill, Carol G & Robert L, Jr |
| Mcguire, Michael T & Tere M |
| Mckenna, Matthew B & Judith M |
| Meador, Deborah J |
| Melby, Kenneth L. & Kenneth L. li |
| Meskin, Michael & Karen L |
| Meyer, Ferdinand J. & Valentina |
| Miller, Louis & Cathy Cae |
| Miller, Lynn M & Raymond A |
| Mitchell, Orley T & Thea D |
| Moore, David S |
| Moore, Donald R Jr & Linda L |
| Morgan, Richard D & Kay D |
| Morton, G Thomas & Debra E |
| Morton, G Thomas & Rivera, Debra E |
| Most, Ernest D & Roberta S |
| Murdock, Granville J & Sharon E |
| Murphy, Kenneth Andrew & Jill Christine |
| Murphy, Michael D & Wilson, Vicki S |
| Murphy, Stephen P & Murphy, Tg Trust |
| Nardecchia, Andrew & Katherine |
| Neal, The John L Trust & The Mickey M Trust |
| Nipper, Richard D |
| Noel, Thomas E & Patricia L |
| Nystrom, John S |
| O Farrell, Michael E & Cynthia H |
| Ochsner, Edward J & Carol Kennedy |

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| Oleary, Debby Britten |
| Opstein, Mark A & Jeanne B |
| Ordway, Christy Garrison & John P |
| Ostermiller, Clint W & Amanda L |
| Pacheco, Enrique & Edumenia |
| Palmer, Bonnie J |
| Palmer, Carl O & Sharon K |
| Paniagua, Ana M |
| Parada, Juan B & Catalina |
| Paradise, Charles J & Nancy L |
| Parkes, Thomas E And Naomi F Trust |
| Parlette, Bruce |
| Pattillo, Aaron M |
| Pavisich, Jack G Trustee Of The Pavisich Rlt |
| Pavlin, Robert & Barbara |
| Pazzin, Michael G & Dalit |
| Perdue, Michael J & Sarah A |
| Perrin, Charles T & Cartwright, Amy E |
| Peterson, Gerald E, Kearnes, Nancy A & Mary L |
| Petree, Troy Gene & Deborah Laverne |
| Policastro, George |
| Polson, Paige & Rodney J |
| Porter, Linda A |
| Potter, Opal M |
| Prater, Margaret A & Jonathan M |
| Prendergast, Robert E & Lynda L |
| Pressler, Rodney L & Erin E |
| Proud, Carol J |
| Purcell, James H |
| Quintana Garcia, Jorge Luis & Quintana, Herlinda |
| Raggio, Sharon M & Landis, Timothy A |
| Ramirez, Anthony |
| Ramsey, Vernon & Donna |
| Reed, Beverly J & James F Jr |
| Renner, Matthew Alan & Jerri Ann |
| Rhine, Elena |
| Rice, John H & Melinda M |
| Richard, Ronald Dean & Catherine Chaisson |
| Richardson, Lloyd H & Jennifer L |
| Rienau, Austin |
| Rill, Gerhard Balthasar & Deborah Jacobs |
| Robacker, Ronald J & Cheryl L |

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|---|
| Roberts, The Donald D Family Trust |
| Robertson, Cliff L & Leslie Diann |
| Robinson, Craig Kelly |
| Robinson, Scott & Debra S |
| Rodriguez, Jose Alberto |
| Roess Living Trust |
| Rogers, Gary Buddy & Mary K |
| Rose, James L |
| Roseman, Edward A |
| Ruggiere , Eugeneia |
| Rust, Tommy L & Boni L |
| Sacca, Larry D & Karol Ann |
| Sakurai, Lee |
| Samuelson, Kern A & Ervalene |
| Sappington, Judy T & Kulp, Steve |
| Satterfield, Terry Leroy & Satterfield, Penny Lavangaline |
| Sauter, Douglas K & Kathryn A |
| Savage, Joan L |
| Savage, Joan L, John W, Roy E, Marshall T & Daniel W |
| Schaeffer, Jera R |
| Schaeffer, Nathan A & Becky |
| Schell, Lynda L & John M |
| Schoon, Don L & Susan M |
| Schuette, Mark |
| Schultz, Frederick E Jr |
| Schwab, Mark R & Rose M |
| Scott, Eric |
| Scott, Nancy A & James H |
| Sennett, Gary & Secora, Amelia |
| Seymour, Preston C & Cora E |
| Shannon, James Alan Jr & Sheila M |
| Sharp, David V |
| Sheets, Richard A |
| Sheridan, Janet K & Clinton B |
| Shope, Robert W |
| Shore, Lynn J & Lynn T |
| Shuster, Ben D & Joann |
| Siebert, Al J |
| Simpson, Timothy W & Naida I |
| Sjogren, Robert James |
| Skellion, John E & Susan Darlene |

| |
|---|
| Slattery, Mary M |
| Slocum, Donald C., Trust Dated 11/8/96 |
| Smith, Michael & Caitlin |
| Snyder, Danny L |
| Snyder, James G & Jean E |
| Snyder, Kathryn S Trust |
| Snyder, Shane D |
| Solano, Hilda M |
| Sommer, Robert A & Mary J |
| Sorensen, Jory & Autumn |
| Sorensen, Michael Brent & Rene Robin |
| Sowieja, John G & Enli-Sowieja, Nanette L |
| Speck, Robert Eugene & Ping, Pamela Kay |
| Spiroff, Jeffery & Botica, Michelle |
| Spiroff, Jeffrey L & Botica, Michelle A |
| Spotts, Jason |
| Squires, Audrey |
| St John, Dorothy M |
| Stark, Foran D & Willa K |
| Steinhoff, David P & Holly A |
| Stellflug Trust Dated September 28, 1994 |
| Stevens, Connie Jo & Charles Gary |
| Stevenson, Russell S & Robin Gail |
| Stewart, Buddy Lee & Amber Dawn |
| Stierberger, Edward A Revocable Trust Dated November 14, 1996 |
| Stiers, J Michael & Connie L |
| Stoakes, Richmond B & Susan E |
| Stokvis, Robert R & Karin L |
| Stott, Glenn D & Carolyn L |
| Strain, Juliann & Enyeart, Jack Carl -Successor Co Trustee Of The Jack G Pavisich Revocable Living Trust Dtd 6/2/2005 |
| Styers, Alan C & Smith, Heather A |
| Suarez, Olga F |
| Swallow, Jody L & Kris L |
| Sykes, Hilda M & Dennis D & Harold A |
| Talbott, Ross M & Rebecca L |
| Tanis, Steven W & Cynthia L |
| Tanner, Alfred T & Viola L |
| Taylor, Alfia A Trust Dated February 25, 2000 (Amended And Restated On September 25, 2008) |
| Teaney, Mitchell A & Nancy J |

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|---|
| Thaxton, Robert W & Marilyn B |
| Thompson, Dale Thomas And Georgianne |
| Thompson, Marvin L & Paula Virginia |
| Thompson, Travis R & Burkhardt, Robin L |
| Thompson, Tyrone & Linda |
| Till, Kenneth & Marianne |
| Tompkins, Thomas Lynn |
| Tonder, David R & Mary Ann |
| Topol, Judith A |
| Touchton, Jeanette L & James Andrew |
| Trousie, William L Jr & Whitney L |
| Tucker Family Trust U/D/T 10/10/88 |
| Turner, J Bart & Perry-Turner, Lynne |
| Tuttle, David |
| Upton, Gale E & Linda M |
| Upton, Linda Marie & Gale Edward |
| Urquhart, William D & Archie R |
| Valdez, Anthony R & Genevieve D |
| Valencia, David J |
| Vancleave, Gary & Lisa |
| Vick, David D & Sonya M |
| Vogel, Terry Michael & Jane L |
| Walker, Robert L & Jennifer M |
| Wallace, Gary A & Patricia A |
| Ward, Robert M & Barbara S |
| Ware, William S & Frances W |
| Warner, Becky D |
| Warner, Richard C & Kathie M |
| Warren, Randy N & Patricia D |
| Washburn, Eugene E & Jerra L |

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|---|
| Waszak, Laurel & Koning, John |
| Watson, Mary M |
| Weinheimer, Richard A & Deborah J |
| Werner, Benjamin K & Jacquelyn K |
| Wesslen, Jerry C & Lois R |
| Whelan, Kevin C & Kimberly S |
| White, Jerry N & Boland, Diana V |
| White, William R & Charlotte A |
| Wiessner, Arthur & Ethna |
| Wilson, Rick E |
| Winchester Trust Dated 09/30/03 & Scarber Allen Russell As Co-Trusees & Schultz, Alice Marie As Co-Trustees |
| Wingstrom, Fred W & Linda A |
| Winkhaus, John T Iii & Gwenn S |
| Winter, Alvin R & Gladys A |
| Wisdom, Martie |
| Wolf, Jesse R & Jennifer R |
| Woodhouse, Patrick L |
| Woody, Jay |
| Yenter, Martin Terry & Pamela |
| Yerian, Nicholas |
| Yoder, Georg F & Donna A |
| Zacharias, John V & June F |
| Zanella, Robert Jay |
| Zepeda, Maria |
| Zielinski, James P & Janice Beaton |

Landowners 2 (Businesses)

| |
|--------------------------------|
| 1779 Airport Road LLC |
| 2127-33 Airport Rd LLC |
| 319 Property Owners Assn |
| AAPK Leasing LLC |
| AFS Limited LLLP |
| Airport Land Partners Limited |
| AKN LLC |
| ALS Rifle LLC |
| Antero Resources Piceance Corp |
| Arjay Properties Co, LLC |

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|---|
| B To B Investments Inc |
| Bailey's Properties, LLC |
| Baron Lane, LLC |
| Battlement Creek Village Community Assoc |
| Battlement Mesa Golf Course, LLC |
| Battlement Mesa Land Investments |
| Battlement Mesa Land Investments Parcel 1, LLC |
| Battlement Mesa Metropolitan District |
| Beaver Creek Land Trust |
| Benzel Land LLLP |
| Bk Of Ny Mellon Fka Bk Of Ny As Trustee For The |

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| Cert Cwalt Inc Alt Loan Trust 2006-27cb Mtg Pass-Through Cert Series 2006-27cb |
| Bookcliffs Professional Building, LLC |
| Burning Rock B2I2 LLC |
| C & A Services, LLC |
| Cache Creek LLC |
| Cal Co Hotels LLC |
| Calandri Partnership |
| Casperson Family Partnership, Ltd |
| Champion Technologies Inc |
| Chieftain Corporation |
| CIS Rifle, LLC |
| Clem Ranch LLC |
| Coulters Pocket, LLC |
| D and S Enterprises LLC |
| Diamond Elk, LLC |
| DMK Enterprises LLC |
| DNM Rifle, LLC |
| Double B Ranch Limited Liability Company |
| Dunstan Family LLC |
| Emcm Corp |
| Empty Enterprises LLC |
| Encana Oil & Gas (Usa) Inc |
| Encana Oil & Gas (Usa) Inc |
| Engquist & Company, LLC |
| Exxon Mobil Corporation |
| Fiserv Iss & Company Fbo Wolf Gensch, Ira |
| G Construction, Inc |
| G Meehan Properties LLC |
| Garfield County Road Properties LLC |
| Garfield Steel & Machine, Inc |
| Grand River Plaza Property Owners Association |
| Gyro Technologies Inc, Dbva Vaughn Energy Services |
| Hilltop 2F2 Ranch, LLLP |
| Hubbell Cabin LLC |
| JB Homes, LLC |
| Jenkins Group, LLC |
| KKD Properties , LLC |
| Lansfam V, LLC |
| Laramie Energy II, LLC (C/O K E Andrews & Company) |
| Laramie Energy II, LLC |
| Luzerne, LLC |

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| Mahogany Mesa Townhomes Association |
| Mahogany Vistas Homeowners Assoc ,Inc |
| Mc31 LLC |
| McDonalds Corp (159/05) |
| Mcg Investments , LLC |
| Mesa Acres LLC |
| Mobil Oil Corp |
| Moebius Family Properties, LLC |
| Monument Ridge, LLC |
| Morrisania Community Association |
| My Blue Heaven, LLC |
| NDS LLC |
| Noble Energy Inc |
| Nukelink, LLC |
| Oak Grove Ventures, LLC |
| Ora S Legacy LLC |
| Peters-Dewey Town Homeowners Association |
| Petros Tubular Services Inc |
| PNN Land And Home, LLC |
| Poor Boys Leasing LLC |
| Public Service Company Of Colorado |
| Puckett Land Company & |
| Questar Pipeline Company |
| Quicksilver Court Homeowners Association |
| Red River Hotels I |
| Reed, Jonathan & Associates Inc |
| Rex, Rae LLC A Colorado LLC |
| Rifle Building LLC |
| Rifle Business Park Owners Association |
| Rifle Commercial Investments LLC |
| Rifle Group LLC, The |
| Rifle Holdings I, LLC |
| Rifle Investment Properties LLC |
| Rifle Land LLC |
| Rifle Mixed Ventures, LLC |
| Rifle Partners LLC |
| Rifle Retail Ventures LLC |
| Rifle South Ltd |
| Rifle Suites LLC |
| Rifle Trade Associates, LLC |
| Robinson Family Properties, LLC |
| Rudolph Associates, LLC |

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|---|
| Rulison Homestead Blue Ribbon Ranch LLC |
| RW Bullock Land & Cattle Company LLC & Jmb Land Company LLC |
| Sanchez Drywall, Inc |
| Savage Limited Partnership I |
| Scheer Family LLC |
| Seventh Day Adventist Assn |
| Shelton Properties, LLC |
| Site-West Development LLC |
| Southbank Secure Storage, LLC |
| Southbank Secure Storage, LLC (92 Pct) Walker Electric, Inc (8 Pct) |
| Srei Mamm, LLC |
| Summit Ministries Resources, Inc |
| Sunset Townhomes, LLC |
| T D Production, Inc |
| Tapestry Builders, LLC |

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|--|
| TG TF LLC |
| Turner Management Company, LLC |
| Valley View Townhouse Homeowners Assoc |
| Walck Enterprises, LLC |
| Wal-Mart Real Estate Business Trust |
| WCO Oilfield Services Inc |
| WDM Corporation |
| Wells Fargo Bank, Na |
| Western Slope Trailer Sales, Inc |
| Westfork Ranch, LLC |
| Williams Production Rmt Company |
| Willorie Properties |
| Wpx Energy Rocky Mountain, LLC |
| Youberg Beaver Creek Ranch |
| ZFP Limited LLLP |