RECLAMATION

Managing Water in the West

EA No. EC-2014-001

Environmental Assessment
Black Hills Corporation
Pueblo Reservoir Substation

prepared for:

U.S. Bureau of Reclamation
Eastern Area Office
Loveland, Colorado

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U.S. Department of the Interior
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Mission Statements

The U.S. Department of the Interior protects America's natural resources and heritage, honors our cultures and tribal communities, and supplies the energy to power our future.

The mission of the Bureau of Reclamation is to manage, develop, and protect water and related resources in an environmentally and economically sound manner in the interest of the American public.

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ENVIRONMENTAL ASSESSMENT
BLACK HILLS CORPORATION
PUEBLO RESERVOIR SUBSTATION

Executive Summary

Black Hills Corporation (Black Hills) proposes to build the Pueblo Reservoir Substation (substation) on Bureau of Reclamation (Reclamation) property southeast of Pueblo Dam and Reservoir. The need for this project is to provide electrical power, handle increased demands for electric supply west of Pueblo, Colorado and improve reliability for facilities near Pueblo Reservoir. Black Hills will need to obtain a special use permit from Reclamation to construct and operate the substation, constituting a federal action requiring analysis under the National Environmental Policy Act (NEPA). This Environmental Assessment (EA) includes an analysis of the environmental effects of the construction of the new substation south of the Arkansas River by Black Hills and installation of distribution lines (Proposed Action) to connect to the Juniper pump station north of the Arkansas River.

ERO Resources Corporation (ERO) analyzed potentially affected resources within the analysis area following standard methods and protocols used for other NEPA analyses conducted in the area. Resources were analyzed for direct, indirect, and cumulative effects of the Proposed Action. The Proposed Action would not affect recreation, ground water hydrology, flood hydrology and floodplains, socioeconomics and land use, Indian trust assets, or air quality.

Project Description: Black Hills proposes to construct a new electrical substation on approximately 4.7 acres southeast of Pueblo Dam and north of State Highway 96. The components of the Proposed Action include the substation, an access road, and both overhead and underground distribution lines to the Juniper pump station north of the Arkansas River. The distribution lines include aboveground elbow cabinets on the underground portion of the distribution line (Figure 1). The Proposed Action would comply with and implement the best management practices (BMPs) and mitigation activities provided in Appendix A, as appropriate.

Affected Environment: The Pueblo Reservoir Substation analysis area (analysis area) consists of the substation and 100-foot temporary disturbance buffer, the existing two-track access road, a 50-foot-wide permanent corridor around the proposed centerline of the aboveground distribution line, and a 50-foot temporary disturbance buffer around the proposed centerline of the underground distribution line. The analysis area is east of Pueblo Reservoir on Colorado State Park-leased land. The analysis area consists of rolling, disturbed grassland that slopes down toward the Arkansas River, and mesic shrublands and woodlands within the river floodplain.

Environmental Consequence: The environmental effects of the proposed Pueblo Reservoir Substation and distribution line to the Juniper pump station would be negligible for all resources. Approximately 4.72 acres of native and mixed vegetation would be permanently lost by construction of the substation and elbow cabinets and 15.53 acres of

native and mixed vegetation would be temporarily disturbed by overhead/underground distribution lines (Table 1). The edge of one small wetland area that occurs within the analysis area and the Bessemer Ditch would be avoided by the installation of overhead distribution lines. The north and eastern temporary disturbance buffers of the substation contain shaley and gravelly soils suitable for plants listed as rare by the Colorado Natural Heritage Program (CNHP). Although not regulated by federal or state agencies, rare plant species that may occur within the analysis area include the Rocky Mountain bladderpod, golden blazing star, dwarf milkweed, round-leaf four-o-clock, and Pueblo goldenweed.

The Proposed Action would result in a negligible loss of 4.72 acres of wildlife habitat and would temporarily disturb up to 22.10 acres of big game and swift fox ranges. No federally listed threatened or endangered species would be affected, although 0.19 acre of suitable habitat for the triploid checkered whiptail, a state species of concern, would be permanently lost (Table 1). The project could result in temporary displacement of triploid checkered whiptail, swift fox, and bald eagles during construction. The Proposed Action would have no adverse effect on ground water hydrology, flood hydrology and floodplains, water quality, aquatic resources, socioeconomics and land use, air quality, cultural resources (see Appendix B), recreation, and environmental justice and would have negligible visual effects on nearby residents or visitors to the Pueblo State Park (Table 1).

Guidance

The Council on Environmental Quality (CEQ) regulations provides direction regarding the preparation and review of Environmental Assessments (EAs). The CEQ regulations (Section 1501.4) provide guidance on when and how to prepare an Environmental Assessment and states: The agency shall involve environmental agencies, applicants, and the public, to the extent practicable, in preparing assessments required by Sec. 1508.9(a)(1). The agency may take the following actions following completion of the EA.

(a) Based on the environmental assessment the agency will make its determination whether to prepare an environmental impact statement.

(b) Commence the scoping process (Sec. 1501.7), if the agency will prepare an environmental impact statement.

(c) Prepare a finding of no significant impact (Sec. 1508.13), if the agency determines on the basis of the environmental assessment not to prepare a statement.

Chapter 1. Introduction and Need for the Action

This EA includes an analysis of the environmental effects of construction of a new substation south of the Arkansas River by Black Hills and includes the installation of a combination of overhead and underground distribution lines to connect to the Juniper

pump station. The EA describes the Proposed Action and evaluates the effects of the action on environmental, socioeconomic, and cultural resources within the analysis area. This EA was prepared in compliance with the National Environmental Policy Act (NEPA) of 1969 and implementing regulations; 40 Code of Federal Regulations (CFR) Parts 1500-1508; and Reclamation regulations (Reclamation 2012).

Need for the Action: The need for this project is to provide electrical power and improve reliability for facilities near Pueblo Reservoir, including Pueblo Dam, Pueblo Fish Hatchery, the Southern Delivery System (SDS) pump station, Pueblo West Metropolitan District (PWMD) pump station, Fountain Valley Authority (FVA) Juniper pump station, and various state and federal (e.g. Colorado Parks and Wildlife and US Bureau of Reclamation (Reclamation) buildings and infrastructure at the dam.

Proposed Action: Black Hills proposes to construct a new Pueblo Reservoir Substation (Figure 1) south of the Arkansas River east of Pueblo Reservoir and Dam. The proposed action is comprised of the following elements:

- Construction of a new Pueblo Reservoir Substation along the existing 115-kilovolt (kV) electric transmission line south of the Arkansas River and east of Pueblo Dam.
- Construction of three feeder lines that will distribute power from the substation to surrounding areas.
- Two of the proposed feeder lines will be used to serve the SDS raw water pump station (Juniper pump station).
- The third overhead distribution line will be approximately 1,426 feet long, extend from the proposed substation, and connect with an existing distribution line located to the east-southeast, providing for backup of existing underground lines in the area.
- Installing aboveground elbow cabinets along the underground portion of the distribution line.
- Connecting the distribution line to the existing bridge which crosses the Arkansas River.
- Enlarging and upgrading the existing dirt access road that extends from the existing Juniper Road west of the Reclamation Pueblo Field Office.

Reclamation's NEPA handbook (Chapter 6 - section 6.4.2) notes that no alternatives need to be considered or analyzed if there are no unresolved conflicts about the Proposed Action. The Proposed Action was reviewed by effected entities at Pueblo Dam, including Reclamation, Pueblo Board of Water Works (PBWW), Colorado Parks and Wildlife (CPW), Southeastern Colorado Water Conservancy District, and Colorado Springs Utilities. The final Proposed Action design was refined to resolve any concerns. In addition, the Proposed Action has undergone a public review process, including filing notices to the Colorado Public Utilities Commission and through the Pueblo County 1041 permitting process. No public comments were received and no unresolved conflicts have been identified during these public processes. Because there are no unresolved conflicts,

this EA evaluates environmental effects by comparing the impacts of the Proposed Action to existing conditions.

The Pueblo Reservoir Substation analysis area (analysis area) consists of the permanent substation footprint and a 100-foot temporary buffer around the footprint, the permanent footprint of the access road, elbow cabinets, and structures for the aboveground distribution line, and a 50-foot-wide temporary corridor around the proposed centerline of the overhead/underground distribution line. The analysis area is east of Pueblo Reservoir on Colorado State Park-leased land (Figure 1).

The environmental consequences of the Proposed Action are presented by resource in the following sections and summarized in Table 1.

Table 1. Summary of Direct and Indirect Environmental Effects of the Proposed Action.

Environmental Resource Evaluated	Environmental Effects of Proposed Action
General Vegetation Resources	4.72 acres permanent and 15.53 acres temporary effects
Potential Colorado Natural Heritage Program Tracked Rare Plant Habitat	0.07 acre permanent and 3.70 acres temporary effects
Wetlands and Other Waters of the U.S. and Riparian Habitat	Negligible 0.007 acre temporary effect; jurisdictional wetlands avoided by BMPs; covered under US Army Corps of Engineers Nationwide Permit 12 for Section 404 Clean Water Act compliance, does not require preconstruction notification; small (0.007 acre) acreage temporary effect does not require mitigation.
Federally Listed Threatened and Endangered Species	No effect
Wildlife Resources	4.72-acre permanent loss of wildlife habitat; including overall range for mule and white-tailed deer, and swift fox; temporary displacement from 22.10 acres of mule deer, swift fox, and white-tailed deer overall ranges and 13.91 acres of pronghorn overall range; 0.19 acre permanent and 9.76 acres temporary effects on triploid checkered whiptail habitat and 7.33 acres temporary disturbance of bald eagle winter range
Soils, Geology, Farmland, and Paleontology	No effect
Cultural Resources	Colorado State Historic Preservation Officer (SHPO) concurred on November 1, 2013, that a finding of no adverse effect is appropriate for the proposed action pursuant to 36 CFR 800.5(b)
Environmental Justice	No effect
Visual Resources	Negligible effect
Hazardous Materials	No effect
Recreation, Ground Water Hydrology, Flood Hydrology and Floodplains, Water Quality, Aquatic Resources, Socioeconomics and Land Use, and Air Quality	No effect

Proposed Juniper Pump Station
Proposed Pueblo Reservoir Substation March 2013
Proposed Pueblo Reservoir Substation Temporary Impact Buffer
EIS Study Area Boundary
Image Source: USDA, 2009

Access Road
Overhead Line Pole
Elbow Cabinet
Double-Circuit Overhead Line
Double-Circuit Underground Line

0 500 1,000 Feet

N

Figure 1
Pueblo Reservoir Substation and Distribution Line Corridor

File: 4624 - Fig 1 Pbl Res Substation and Pwrln Corr.mxd (GS)

Chapter 2. Affected Environment and Environmental Consequences

Introduction

This chapter describes the environmental resources within the analysis area, and the environmental effects of the Proposed Action on those resources.

Natural Resources

Affected Environment

The analysis area consists of rolling, disturbed grassland that slopes down toward the Arkansas River (Figure 1). Open grasslands dominated by native grasses such as Indian ricegrass (*Acnatherum hymenoides*) and sand dropseed (*Sporobolus cryptantha*) cover the plains and slopes (Upland Native Grasslands – Figure 2). Yucca (*Yucca glauca*), cacti, and shrubs such as four-winged saltbrush *(Atriplex canescens*) are scattered throughout the grasslands along with a few juniper trees (*Juniperus* sp.). The vegetation along the existing two-track access road is more disturbed than in the rest of the analysis area with sparser vegetation and more annual weeds such as kochia (*Bassia scoparia*). This vegetation is categorized as Upland Mixed Grasslands. Most of the Arkansas River floodplain is covered by mesic (moist) shrubland communities dominated by either native shrubs or a mixture of native shrubs and the noxious weed salt cedar (*Tamarix ramosissima*). Riparian woodlands within the Arkansas River floodplain are dominated by plains cottonwoods (*Populus deltoides*) classified as either mesic native woodlands or mesic mixed woodlands where salt cedar is co-dominant. The soils on the slopes at the northern end of the analysis area are generally shaley or gravelly, the soils on the plains at the southern end tend to be sandy loam and the soils within the Arkansas River floodplain generally clayey to sandy alluvium.

One wetland occurs within the analysis area and a very small fringe of this wetland (0.007 acre) could potentially be temporarily affected by installation of the overhead distribution line structures.

The only noxious weeds on the 2013 Colorado Department of Agriculture noxious weed list observed within the analysis area during the April 2013 field surveys was salt cedar. Best management practices, described in Appendix A, require equipment to be washed prior to entry onto the construction site, require the use of certified weed-free mulch after seeding construction areas, the use of weed-free seed for revegetation, monitoring for three years post construction, and development of a weed control plan if noxious weeds are present. These measures are designed to reduce the threat of introducing or spreading noxious weeds into the project or surrounding area.

A list of federally-listed and candidate species potentially occurring in or affected by projects in Pueblo County was obtained from the US Fish and Wildlife Service (Information, Planning and Conservation System (IPAC) 2013; Service 2010) (Table 2). The presence of suitable habitat within a 10-mile radius of the project (analysis area, or Action Area as defined under the Endangered Species Act) was evaluated for each

species according to the quantity, quality, and type of habitat available. No federally-listed threatened or endangered plant species occur within the analysis area; however, potential habitat for Colorado Natural Heritage Program rare plants occurs on the shaley and gravelly hills at the northern end of the analysis area (Figure 2). Rare plant species that may occur within the analysis area include the Rocky Mountain bladderpod, golden blazing star, dwarf milkweed, round-leaf four-o-clock, and Pueblo goldenweed.

Table 2. Federally threatened and endangered species and their habitats potentially occurring within the Action Area or indirectly affected by project activities and operations.

Common Name	Scientific Name	Status*	Habitat	Habitat Present
Mammals				
Black-footed ferret	*Mustela nigripes*	E	Active prairie dog towns or complex >80 acres in size	No
Canada lynx	*Lynx canadensis*	T	Spruce/fir forests (upland woodland)	No
North American wolverine	*Gulo gulo luscus*	PT	Cold areas with enough winter precipitation to reliably maintain deep persistent snow	No
Birds				
Mexican spotted owl	*Strix occidentalis*	T	Closed canopy forests in steep canyons	No
Fish				
Arkansas darter	*Etheostoma cragini*	C	Shallow, clear, sandy streams with spring-fed pools and abundant rooted aquatic vegetation	No
Greenback cutthroat trout	*Oncorhynchus clarki stomias*	T	Cold, clear, oxygenated streams of moderate gradient	No

* E = Endangered; T = Threatened: PT = Proposed Threatened: C = Candidate.
Source (for species list): Service 2010; IPAC 2013.

Proposed Juniper Pump Station
Proposed Pueblo Reservoir Substation March 2013
Proposed Pueblo Reservoir Substation Temporary Impact Buffer
EIS Study Area Boundary
Access Road
Potential Rare Plant Habitat
Upland Mixed Grasslands
Upland Native Grasslands
Mesic Native Shrublands
Mesic Mixed Shrublands
Upland Native Shrublands
Mesic Mixed Woodlands
Water
Road or Other Disturbed Area
Wetland
Overhead Line Pole
Elbow Cabinet
Double-Circuit Overhead Line
Double-Circuit Underground Line

0 500 1,000 Feet

N

Image Source: USDA, 2009

Figure 2
Pueblo Reservoir Substation and Distribution Line Corridor Vegetation

File: 4624 - Fig 2 Pbl Res Substation and Pwrln Veg.mxd (GS)

Wildlife potentially occurring within the analysis area, including the mesic mixed woodland areas along the Arkansas River, includes small mammals; songbirds; reptiles; predators such as coyote and bobcat; bald eagle, osprey, and other raptors; and mule deer, pronghorn, and white-tailed deer. The analysis area is mapped as swift fox overall range (Colorado Natural Diversity Information Source (CNDIS) 2013) and provides habitat for the triploid checkered whiptail.

Environmental Consequences

Overall, the Pueblo Reservoir Substation and distribution line would result in permanent impacts on potential rare plant habitat, big game overall range and suitable triploid checkered lizard habitat, and temporary disturbance to bald eagle winter range. The Proposed Action would not directly or indirectly affect wetlands or riparian vegetation. The Proposed Action would permanently affect 4.72 acres of mixed and native grassland, shrubland and woodland vegetation and temporarily affect 15.53 acres of vegetation, primarily upland native grassland (Table 3).

Table 3. Vegetation effects of the Pueblo Reservoir Substation and distribution line corridor.

Resource	Proposed Change	
	Permanent Impact (acres)	**Temporary Impact (acres)**
Vegetation Communities		
UNG – Upland Native Grasslands	3.47	9.61
UMG – Upland Mixed Grassland	1.2	0.1
UNS – Upland Native Shrublands	0.02	0.56
MNS – Mesic Native Shrublands	0	2.01
MMS – Mesic Mixed Shrublands	0.01	2.09
MMW – Mesic Mixed Woodlands	0.02	1.16
RD/DIS – Road or Other Disturbed Area	0.1	1.64
OW – Open Water	0	0.02
Total Vegetation[1]	4.72	15.53
Wetlands, Water, Riparian	0	0
Waters of the U.S. – Wetland	0	<0.01
Riparian – Woodland	0.02	1.16
Potential Habitat for Rare Plants	0.07	3.7

[1]Does not include water.

Potential habitat for CNHP rare plant species occurs within the analysis area on the shaley hillsides south of the Arkansas River. These shaley hillsides were created during reservoir construction and consist of stockpiled shales, gravel, and other earthen materials hauled from the reservoir during construction. No imperiled or critically imperiled plant species were found close to the analysis area during field surveys, although rare plants were found on similar habitat north of the Arkansas River (ERO 2007).

The Proposed Action would directly affect 4.72 acres of overall wildlife habitat, including overall range for mule deer, pronghorn, and white-tailed deer (CNDIS 2013) (Figure 3). Temporary displacement effects on mule and white-tailed deer, pronghorn, and swift fox overall ranges would be between 13.91 and 22.1 acres (Table 4). These permanent and temporary impacts to habitat amount to about 1 percent or less of the overall amount of habitat available within 10 miles of the project (Table 5).

Table 4. Wildlife effects of the Pueblo Reservoir Substation and distribution line corridor.

Resource	Proposed Change	
	Permanent Impact (ac.)	Temporary Impact (ac.)
Amphibian habitat	0	0
Bald eagle roost	0	0
Bald eagle winter range	0.03	7.33
Mule deer overall range	4.72	22.10
Pronghorn overall range	4.70	13.91
Swift fox overall range	4.72	22.10
White-tailed deer overall range	4.72	22.10
Triploid checkered whiptail	0.19	9.76

Table 5. Wildlife habitat impacts as a percentage of habitat available within a 10-mile buffer of the Pueblo Reservoir Dam Substation Project.

Effect	Habitat Type	Habitat Impact (acres)	Habitat Available*	Percent Impact /habitat available
Permanent	Mule Deer Overall Range	4.72	100,252	<0.01%
Temporary	Mule Deer Overall Range	22.10	100,252	0.02%
Permanent	Pronghorn Overall Range	4.70	172,695	<0.01%
Temporary	Pronghorn Overall Range	13.91	172,695	0.01%
Permanent	Swift Fox Overall Range	4.72	165,183	<0.01%
Temporary	Swift Fox Overall Range	22.10	165,183	0.01%
Permanent	White-tailed Deer Overall Range	4.72	207,788	<0.01%
Temporary	White-tailed Deer Overall Range	22.10	207,788	0.01%
Permanent	Bald Eagle Winter Range	0.03	11,751	<0.01%
Temporary	Bald Eagle Winter Range	7.33	11,751	0.06%
Permanent	Triploid checkered whiptail	0.19	438.1	0.04%
Temporary	Triploid checkered whiptail	9.76	438.1	2.23%

*Habitat available consists of a 10-mile buffer around the impact boundaries of the project.

The analysis area does not contain suitable habitat for any of the federally-listed threatened, endangered, proposed threatened, or candidate species listed in Table 2 and the Proposed Action would have no effect on any federally-listed threatened, endangered, candidate, or proposed species or habitat (Table 2) (ERO 2013a). During surveys of the analysis area, ERO found potential habitat for two state-listed species – triploid checkered whiptail (whiptail) and swift fox. Construction of the substation and distribution line would permanently affect about 4.72 acres of swift fox overall range and 0.19 acres of whiptail habitat. Construction activities and disturbance could temporarily displace the swift fox and whiptails from 22.10 and 9.76 acres of suitable habitat, respectively. The Proposed Action would temporarily affect 7.33 acres of mapped bald eagle winter range (Table 4). The magnitude of the project effects on bald eagle winter habitats and swift fox overall range is a negligible percentage of the total habitat available below Pueblo Dam. Effects on the whiptail and swift fox den sites would be minimized by implementing BMPs, including conducting preconstruction surveys and implementing seasonal restrictions as appropriate.

Soils, Geology, and Paleontology

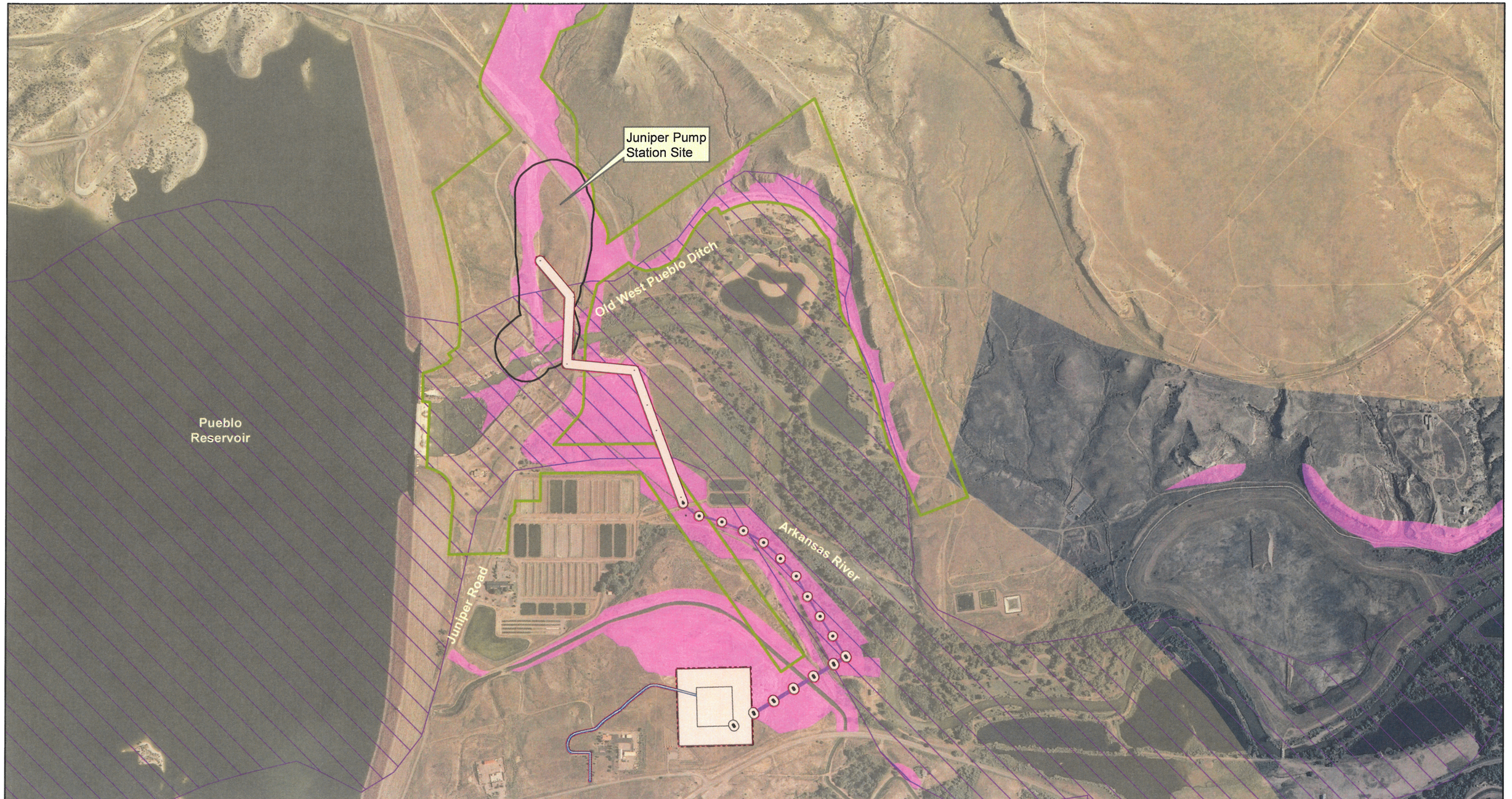
Affected Environment

Soils in the analysis area consist of alluvial deposits of the Cascajo very gravelly sandy loam (9.7 acres of the analysis area), Otero sandy loam (6.7 acres of the analysis area), Keyner loamy sand (1.8 acre of the analysis area), Bloom silt loam (1.5 acres of the analysis area), and Arvada-Keyner Association (2.2 acres of the analysis area). The soils are generally deep, have a low to moderate susceptibility to wind and water erosion, and a poor to good suitability for use as topsoil. The exception is the Keyner loamy sand that has high susceptibility to wind erosion. The analysis area is not irrigated and the soils are not considered important farmland.

The geology in the analysis area consists of alluvial deposits of sand and gravel underlain by weathered and unweathered limestones and shales of the Cretaceous-era Greenhorn Limestone and Graneros Shale. Historically, the sand and gravel deposits were mined in surface pits to the east of the analysis area. The subsurface bedrock offers few geologic resources and may contain the fossilized remains of marine organisms. Geologic hazards related to the alluvial deposits include a high corrosivity to steel and a low shrink/swell potential. The analysis area has a low susceptibility for landslides and a very low seismicity risk.

Environmental Consequences

The Proposed Action would have a negligible effect on soil and geologic resources and a moderate effect on paleontological resources, but only if the bedrock units are encountered during construction. The Proposed Action would be minimally affected by geologic hazards unless steel components of the project are buried in the highly corrosive soils.



Proposed Juniper Pump Station
Proposed Pueblo Reservoir Substation March 2013
Proposed Pueblo Reservoir Substation Temporary Impact Buffer
EIS Study Area Boundary
Access Road

Overhead Line Pole
Elbow Cabinet
Double-Circuit Overhead Line
Double-Circuit Underground Line

Bald Eagle Winter Range
Triploid Checkered Whiptail Habitat
Swift Fox Overall Range

Note: The project area is completely contained within Mule Deer and White-tailed Deer overall range.

0 500 1,000 Feet

N

Image Source: USDA, 2009

Figure 3
Pueblo Reservoir Substation and Distribution Line Corridor Wildlife Habitat

File: 4624 - Fig 3 Pbl Res Substation and Pwrln Wild.mxd (GS)

Cultural Resources

Affected Environment

Cultural resources are defined as any prehistoric and historic district, site, building, structure, object, cultural landscape, sacred site, and traditional cultural property (Reclamation Manual LND 02-01). Within the broad range of cultural resources are those referred to as historic properties. Section 106 of the National Historic Preservation Act (NHPA) of 1966, mandates that Reclamation take into account the potential effects of a proposed Federal undertaking (Proposed Action) on historic properties. According to the Section 106 regulations (36 CFR Part 800), historic properties include any prehistoric or historic district, site, building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places (NRHP).

The affected environment for cultural resources is known as the area of potential effects (APE), as defined in the Section 106 regulations (36 CFR Part 800.16). The APE is the geographic area within which a Federal undertaking (Proposed Action) may directly or indirectly cause alterations in the character or use of historic properties. Cultural Resource Analysts, Inc. (CRA) inventoried the entire Proposed Action APE for an unrelated project (Brandt et al. 2010). Based on the results from this survey, documented cultural resources within the APE include two segments of the Bessemer Ditch (5PE.486.3 and 5PE.486.4), one segment of the Old West Pueblo Ditch (5PE.3754.5), one prehistoric artifact scatter (5PE.2923), two historic artifact scatters (5PE.7098 and 5PE.7104), one artifact scatter with both prehistoric and historic components (5PE.7099), and two prehistoric isolated finds (5PE.5392 and 5PE.5393).

The Bessemer Ditch has been determined eligible for the NRHP and is, therefore, a historic property. Both segments of the Bessemer Ditch within the APE have also been determined supporting segments of the overall NRHP eligibility of the entire Bessemer Ditch. In addition, the Bessemer Ditch retains integrity of location, association, workmanship, and design, but lacks integrity of materials, feeling, and setting. The other cultural resources have been determined not eligible for the NRHP and will not be considered further in this analysis.

Environmental Consequences

Direct impacts to the Bessemer Ditch resulting from the Proposed Action would be avoided by running the proposed overhead distribution line above it. Indirect effects to the Bessemer Ditch from the overhead distribution line would be negligible given that the Bessemer Ditch does not retain integrity of setting, which has been diminished by the original construction of Pueblo Reservoir and associated facilities, including holding ponds, a large gravel pit, roads, and other distribution lines. Based on the results of the CRA inventory and a recent environmental due diligence assessment (ERO 2013b), Reclamation has determined a finding of no adverse effect for the Proposed Action (Table 1). In a letter dated November 1, 2013, the Colorado SHPO concurred with Reclamation's finding of no adverse effect (Appendix B).

Environmental Justice

Affected Environment

A block group represents the resolution of least-size where the most important U.S. Census data sets that are readily available from data (i.e., both for population and income). The Pueblo Reservoir Substation analysis area crosses portions of one block group. The block group represents no risk or concern in terms of environmental justice.

Environmental Consequences

The block group that would be potentially affected by the Proposed Action was considered as part of the environmental justice evaluation for the Selected Alternative in the Southern Delivery System Final Environmental Impact Statement (Reclamation 2008). The proposed substation project would not disproportionately affect any low-income or minority communities.

Visual Resources

Affected Environment

Observation points with unobstructed views of the substation, about 0.25 miles northeast of the intersection of Pueblo Reservoir Access Road and Thatcher Avenue, include single-family homes, vehicular traffic on some local roads, public agency office buildings, and a recreational archery facility. The views from all observation points include many overhead utility lines, paved and unpaved roads, and noticeable existing disturbances at the substation site, such as a large soil and rock debris pile, unpaved two-track roads, and utility poles with overhead lines.

The north and west views from five single-family homes approximately 0.5 miles southeast of the substation, include the proposed substation site with the Pueblo dam and mountains in the background. These views also include the variety of existing disturbances below Pueblo Dam such as the dam's outfall structures, many paved roads, a fish hatchery, and many single-story government agency office and maintenance buildings. These homes are located topographically high above the substation and disturbances below the Pueblo Dam. These views are of long duration.

The east and south views from approximately six homes, at least two miles northwest of the substation, are of the Pueblo Reservoir, the city of Pueblo, and the prairie in the distance. Because these homes are located on Liberty Point, a topographic high, and within a high plains region mostly without trees, unobstructed views exist in all directions. These views are also of long duration.

Buildings, roads, fences, overhead transmission and distribution lines, a fish hatchery, and the face of the Pueblo Dam are visible from all observation points. Moving vehicles and pedestrians during daylight hours and vehicle headlights and facility lighting at night are also visible.

Environmental Consequences

The effects on visual resources from the Proposed Action would be negligible due to the relatively small size of the construction activities in the views, and the presence of many other existing disturbances in the views (Table 1).

Hazardous Materials

Affected Environment

A review of reasonably ascertainable federal and state records did not identify any known sites within ½ mile of the analysis area that would have the potential to adversely affect the soil and/or ground water. The entire analysis area was evaluated during the SDS Final Environmental Impact Statement (Reclamation 2008). The following is a list of federal and state regulatory agency databases that were reviewed:

- National Priority List (NPL): consists of properties with the highest priority for cleanup pursuant to the EPA's Hazard Ranking System;
- CERCLIS: includes sites investigated for potential hazardous substance contamination and for inclusion on the NPL;
- RCRA CORRACT: includes sites that have had hazardous waste violations and are undergoing corrective action or cleanup under RCRA;
- Leaking underground storage tank (LUST): facilities, usually service stations, with aboveground or underground storage tank leaks of petroleum products that have been reported to the state regulatory agency;
- Colorado Voluntary Cleanup List (VCUP): facilities with known soil and/or ground water contamination whose owners have submitted a Voluntary Cleanup Plan for approval by the Colorado Department of Health and Environment (CDPHE) under the Colorado Voluntary Cleanup and Redevelopment Act; and
- Landfills and solid waste disposal sites: facilities that have received permits from CDPHE to dispose of regulated non-hazardous waste, and may be currently in use or closed.

Sites that are listed in regulatory agency databases but are not known to have soil and/or ground water contamination were not considered for the assessment, including the following:

- RCRA hazardous waste generator sites;
- RCRA hazardous waste treatment, storage, or disposal sites;
- Underground storage tank sites; and
- No Further Remedial Action Planned (NFRAP) sites.

Environmental Consequences

The proposed analysis area would not be affected by hazardous materials sites.

Cumulative Effects

A cumulative effect is 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 non-Federal) or person undertakes such other actions" (40 CFR 1508.7). The cumulative effects of the SDS and possible future AVC Projects were thoroughly evaluated for all resources under separate NEPA reviews, and the Proposed Action activities analyzed in this assessment would not change the cumulative effects for any resource.

Chapter 3. List of Preparers

The following individuals assisted in the preparation of this EA:

Name	Title/Role	Affiliation
U.S. Bureau of Reclamation		
Lucy Maldonado	Environmental Specialist	Eastern Colorado Area Office
Tara Piper	Natural Resource Specialist	Eastern Colorado Area Office
Additional Contributors		
Ron Beane	Project Manager/Wildlife Biologist	ERO Resources Corporation
Denise Larson	Natural Resource Specialist/Ecologist	ERO Resources Corporation
Bill Mangle	Natural Resource Planner	ERO Resources Corporation
Craig Sovka	Geologist	ERO Resources Corporation
Sean Larmore	Senior Archeologist	ERO Resources Corporation
Wendy Hodges	GIS and Mapping Support	ERO Resources Corporation
Kay Wall	Technical Editor	ERO Resources Corporation
Mark Holdeman	Visual Resource Specialist	Holdeman Landscape Architecture

Chapter 4. Consultation and Coordination

Reclamation consulted the following agencies and organizations during the review and development of this EA for the Black Hills Corporation's proposed substation:

Colorado Parks and Wildlife
Colorado Springs Utilities
Pueblo Board of Water Works
Southeastern Colorado Water Conservancy District

Reclamation also consulted under the SDS Final Environmental Impact Statement for the Juniper Pump Station component. Several state and local governments, organizations, and tribes were provided the opportunity to identify issues and concerns associated with that project.

In addition, the Proposed Action underwent public review processes through the filing of notices to the Colorado Public Utilities Commission and through the Pueblo County 1041 permitting process.

Chapter 5. References

Brandt, S., C. Kester-Tallman, and T. Hoefer. 2010. Class III Cultural Resource Inventory of the Pueblo Reservoir, Pueblo County, Colorado. Prepared for the U.S. Bureau of Reclamation, Eastern Colorado Area Office, Loveland.

Bureau of Reclamation (Reclamation). 2008. Southern Delivery System Final Environmental Impact Statement. December.

Bureau of Reclamation (Reclamation). 2009. Southern Delivery System Record of Decision. March.

Bureau of Reclamation (Reclamation). 2012. Reclamation's NEPA Handbook. U.S. Department of Interior, Bureau of Reclamation. February 2012. Available online at http://www.usbr.gov/nepa/

Colorado Department of Agriculture (CDOA). 2013. Noxious Weed Management Program. Available at: http://www.colorado.gov/cs/Satellite?c=Page&childpagename=Agriculture-Main%2FCDAGLayout&cid=1174084048733&p=1174084048733&pagename=CDAGWrapper. Last accessed: March 30.

Colorado Natural Diversity Information Source (CNDIS). 2013. Available at: http://ndis.nrel.colostate.edu/index.html. Last Accesses November 20.

ERO Resources Corporation (ERO). 2007. Vegetation Resources Technical Report – Southern Delivery System Environmental Impact Statement. Prepared for the Bureau of Reclamation.

ERO Resources Corporation (ERO). 2013a. Threatened and Endangered Species Assessment: Pueblo Reservoir Substation. Prepared for the Black Hills Corporation. August.

ERO Resources Corporation (ERO). 2013b. Environmental Due Diligence Assessment: Pueblo Reservoir Substation. Prepared for Black Hills Corporation. August.

Information, Planning, and Conservation System (IPAC). 2013. U.S. Fish and Wildlife Service Environmental Conservation Online System. Available at http://ecos.fws.gov/ipac/. Last Accessed November 20.

U.S. Fish and Wildlife Service (Service). 2010. Endangered, Threatened, Proposed and Candidate Species, Colorado Counties. Available at:

http://ecos.fws.gov/ipac/wizard/chooseLocation!prepare.action. Last accessed: November 20.

Appendix A. Best Management Practices

Appendix A - Best Management Practices

Below are the Best Management Practices (BMPs) for the Black Hills Corporation, Pueblo Reservoir Substation.

General Commitments

Comply with all applicable permits, regulations, and laws including but not limited to Colorado Department of Public Health and Environment, U.S. Army Corps of Engineers, and local land use permits.

Wetlands, Waters, and Riparian Vegetation

The following mitigation measures will be implemented:

- Design distribution line alignments and facilities to avoid wetland impacts.
- For 1 year after construction, monitor the construction areas to determine if appropriate native vegetation is establishing. If native vegetation is not establishing, the site will be reseeded with appropriate species.
- In the appropriate season prior to construction, survey potential construction areas with known populations of plant species of concern, to locate areas where impacts can be avoided and minimized to the extent practicable.
- During construction, wash major construction equipment before it enters the site so that noxious weeds are not spread from other construction sites.
- Use certified weed-free mulch after seeding construction areas.
- Reseed construction areas with comparable native vegetation as soon as practicable after disturbance, using seed that does not contain any State and Federally listed noxious weed seed.
- Monitor construction areas for 3 years after construction to assess if State and Federally listed noxious weeds have invaded the site. If noxious weeds are present, weed control plans will be formulated and completed.

Wildlife

Replace vegetation, including structural diversity, to reduce the long-term effects on wildlife by allowing wildlife to return to disturbed areas. Pre-construction surveys will identify wildlife use at the time of construction and allow for planning for avoidance and minimization. Imposing seasonal and/or daily restrictions on construction will enable wildlife to use important habitat, especially during breeding and other critical periods. The following mitigation measures will be implemented:

- Promptly revegetate all disturbed areas with Colorado native species that provide species diversity and food and cover for large game and wildlife habitat.
- Conduct clearance surveys in suitable habitat for state-listed species following standard protocols, as available, prior to construction.
- Conduct raptor nest surveys prior to construction and impose seasonal restrictions to surface activity within recommended buffers (generally ¼ to ½ mile) around active raptor nest sites.
- Develop construction schedules to avoid impacts to nesting migratory birds.

- If construction is scheduled to occur during the nesting season (April 1 through August 31) in areas where migratory birds may nest, a qualified biologist will conduct a nesting bird survey prior to the commencement of construction activities to determine the presence of migratory birds and their nests.
- If an active nest is detected, a buffer zone between the nest and the limit of construction will be flagged and avoided during the nesting season, or construction will be scheduled outside of the nesting season.
- Conduct pre-construction surveys for swift fox den sites within appropriate habitat within the project area. Avoid surface disturbance within 1/4 mile of active den sites while young are den-dependent (March 15 -June 15).
- Restrict pesticides for rodent control within swift fox overall range.
- Impose seasonal restrictions on construction to avoid sensitive large game winter habitat (from first large snowfall to summer green-up).

Cultural Resources

No cultural or historic resources would be adversely affected by the project; however, Black Hills will

- Develop and implement a Discovery Plan providing for details relating to: 1) methods and standards for construction monitoring; and, 2) protocols for discovery situations, including the presence of human remains.

Visual Resources

Restoring existing grades, revegetating disturbed areas, using architectural styles consistent with the area, and designing powerlines to have low visibility will minimize the visual contrast between the surrounding areas and will reduce the visibility of disturbance or new structures from observation points. Reducing airborne fugitive dust and construction lighting will reduce the area affected during construction. The following mitigation measures will be implemented:

- Revegetate and/or landscape with Colorado native plants, all disturbances associated with the construction of all facilities.
- Construct powerlines with non-specular (not shiny) wire, non-reflective and opaque insulators, and light-colored, non-reflective finished poles.
- Reclaim construction access roads and staging areas by restoring existing grade and revegetating the area of disturbance.
- Apply water with standard construction practices to control airborne fugitive dust within construction areas.
- Install baffles on construction lighting fixtures to direct light onto the construction activity only in locations where safety is a concern, scenic quality will be affected, or near occupied homes and businesses.

Soils

Proposed mitigation measures will reduce short-term and long-term losses of soil and soil productivity. Redistribution of topsoil to soil deficient areas will increase soil productivity in those areas. The following mitigation measures will be implemented:

- Minimize the area of disturbance to defined construction limits and limit the time bare soil is exposed.
- Contain soils within the construction area through temporary sediment control measures such as silt fences, sediment logs, trenches, and sediment traps.
- Remove woody vegetation prior to topsoil salvage and, to the extent possible, salvage topsoil within tree stump roots.
- Use topsoil salvage methods including windrowing topsoil at the limits of construction and pulling the soil back on slopes during reclamation.

Appendix B. Letter from Colorado State Historic Preservation Office

HISTORY Colorado

OFFICIAL FILE COPY RECLAMATION ECAO	
DATE: NOV 06 2013	
ROUTE TO:	DEPT
Nguyen	
ROUTE COPY TO:	
Ronca	
Curtis	

Official File Copy
File Code ENV:3:00
Project 382
Control No. 13047389
Folder I.D. 1227625
AW 11/7/2013

November 1, 2013

Carlie A. Ronca
Chief, Resources Division
Bureau of Reclamation
Great Plains Region
Eastern Colorado Area Office
11056 West County Road 18E
Loveland, Colorado 80537-9711

Re: NHPA Section106 Consultation Regarding Black Hills/Colorado Electric Utility Company, LP's Proposed Pueblo Reservoir Substation, Pueblo County, Colorado (CHS #64929)

Dear Ms. Ronca:

Thank you for your correspondence dated October 28, 2013 (received by our office on October 31, 2013) regarding the subject project.

After review of the documentation provided, we concur that a finding of no adverse effect is appropriate for the proposed undertaking pursuant to 36 CFR 800.5(b)

Please remember that the consultation process does involve other consulting parties such as local governments and Tribes, which as stipulated in 36 CFR 800.3 are required to be notified of the undertaking. Additional information provided by the local government, Tribes or other consulting parties may cause our office to re-evaluate our comments and recommendations.

Should unidentified archaeological resources be discovered in the course of the projects, work must be interrupted until the resources have been evaluated in terms of the National Register of Historic Places eligibility criteria (36 CFR 60.4) in consultation with our office.

Thank you for the opportunity to comment. If we may be of further assistance please contact Mark Tobias, Section 106 Compliance Manager, at (303) 866-4674 or mark.tobias@state.co.us.

Sincerely,

for Edward C. Nichols
State Historic Preservation Officer
ECN/MAT