
Environmental Assessment

Public Utility District No. 1 of Chelan County Transmission Line Right-of-Way

August 21, 2013

Submittal to:

Bureau of Land Management
Wenatchee Field Office
915 Walla Walla Avenue
Wenatchee, Washington 98801

Environmental Assessment
Chelan County Public Utility District 115kV Transmission Line Right-of-Way
Environmental Assessment No. DOI-BLM-OR-134-2013-0014-EA

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SECTION 1: INTRODUCTION

1.1 Background Information

This report has been prepared in response to a right-of-way application filed by the Public Utility District No. 1 of Chelan County (PUD). The PUD has a 115 kV Transmission line which crosses a portion of Bureau of Land Management (BLM) lands located in Douglas County in Sections 8 & 9, Township 26 North, Range 22 East, Willamette Meridian. The entire line was originally constructed in 1928 and was known as the “Chelan – Wenatchee” 110kV line and permitted by the Federal Power Commission until 1980. In 1981, Chelan PUD received a Right-of-Way Grant from the BLM for a portion of the line located in Section 10, Township 25 North, Range 21 East, Willamette Meridian. The Grant did not include the portions of the line located in Sections 8 & 9, Township 26 North, Range 22 East, Willamette Meridian.

In 2012, the PUD discovered the lack of a Right-of-Way Grant while preparing to conduct work required through the National Electrical Reliability Code (NERC) safety code.

1.2 Proposed action summary

The proposed action is to issue a right-of-way grant to the PUD, authorizing the transmission line and relocating structure 22/3 located in Section 9, Township 26 North, Range 22 EWM.

1.3 Location

The BLM land parcel is situated approximately 7.50 miles downriver from Beebe Bridge on the Columbia River in Douglas County near Chelan Falls, Washington. The BLM property is legally described as a portion of Government Lot 7, Section 8, Township 26 North, Range 22 EWM and a portion of the South¹/₂ of the SW¹/₄ Section 9, Township 26N, Range 22 EWM, Douglas County, Washington. Two vicinity maps showing the transmission line are attached to this report.

SECTION 2: PURPOSE AND NEED

The PUD has submitted a right-of-way application for the existing transmission line, which travels across BLM, managed public lands. This transmission line serves two substations and carries electricity between the City of Chelan and Rocky Reach Dam.

The BLM action on this proposal is issuance of a land use authorization (specifically, a right-of-way grant) for the existing transmission line. The BLM’s need for action is to respond to the PUD’s right-of-way application. In addition, the PUD needs to relocate structure 22/3 to be compliant with NERC regulations. Relocation of the structure will require improvements to the existing access road and construction of a landing for the new structure.

SECTION 3: DECISION TO BE MADE

The BLM will decide whether to grant, grant with conditions, or deny the PUD's application for the right-of-way.

SECTION 4: LAND USE PLAN CONFORMANCE

The proposed action is subject to, and in compliance with, the Spokane District Resource Management Plan Record of Decision (RMP/ROD-1987), and the 1992 RMP amendment. Issuance of rights-of-way grants is listed under the heading "Administrative Actions" on page 5 (unnumbered) of the 1992 ROD. In addition, one of the general management objectives of the 1987 RMP/ROD specifically applies: "Keep public lands open for exploration/development of mineral resources, rights-of-way, access, and other public purposes with consideration to mitigate designated resource concerns."

SECTION 5: SCOPING AND ISSUES

5.1 Public Involvement

The National Environmental Policy Act (NEPA) ensures that the BLM (and other Federal agencies) consider the impact of an action on the quality of the human environment before decisions are made and the action is taken. This EA will be published for review on the BLM website at <http://www.blm.gov/or/districts/spokane/plans/index.php>.

5.2 Issues

There is the potential to affect:

- Sensitive plant species through ground disturbing activities.
- Forest resources.
- Mule deer during their winter migration.
- Historical nest sites for bald eagle, and red-tailed hawk.
- Cultural resource and Native American Tribal interests.
-

SECTION 6: ALTERNATIVES

The BLM is considering two alternatives in this analysis, Alternative A (the Proposed Action) and Alternative B (No Action):

6.1 Alternative A (Proposed Action)

The proposed action is to issue a Right-of -Way Grant to the PUD for the existing transmission line corridor crossing public land in Sections 8 & 9, Township 26 North Range 22 EWM. The transmission line affecting the BLM involves about 4,000 feet of overhead transmission line including six structures (Figure 1). The transmission line corridor Right-of-Way width is 100 feet with approximately 9.18 acres located on BLM land. Issuance of a Right of Way Grant would include access for transmission line maintenance for which there is an immediate need.

To meet NERC transmission line clearance standards, structure 22/3 must be moved approximately 12 feet to the west providing the required clearance between the slope and the conductors of the transmission line. Access and maintenance are scheduled to occur between August 15, 2012 and November 1, 2012 to reduce potential impacts to wildlife resources (See Section 8) and should not take more than 10 days to complete.

The original road used for transmission line construction has been partially reclaimed by natural process, including the re-establishment of native vegetation (including shrubs and grasses) and rocks falling onto the road from above. To access structure 22/3, some portions of the existing transmission line access road on BLM land will need to be improved by removing shrubs (sagebrush, bitterbrush, and serviceberry) and rocks. There are no trees in the existing roadbed; however, a few mature conifers (Ponderosa-pine and Douglas fir) along the road edges may need to be trimmed to accommodate equipment access. The new structure at site 22/3 will be moved 12 feet toward Highway 97, which will require an access pad (25 feet wide by 50 feet long) for large equipment necessary to install the new structure. Earthen fill will need to be added to the down slope portion of the existing road at the new structure site to create a landing area to install the new structure

6.2 Alternative B (No Action):

Under this alternative, the BLM would reject the PUD's Right-of-Way application for the existing transmission line and the PUD would remain in violation of NERC standards.

6.3 Alternatives Considered but Eliminated from Detailed Analysis

No other alternatives were considered for this project.

SECTION 7: AFFECTED ENVIRONMENT AND ENVIRONMENTAL EFFECTS

7.1 Vegetation Resource

7.1.1 Affected Environment

A botanical survey of the proposed 100-foot wide transmission line easement corridor on BLM land was conducted by a Chelan PUD Biologist on May 16, 2013. No federally listed Threatened, Endangered, or Proposed plant species were expected in the project area, and none were found during the field survey. All of the potential federally listed species are either not known or anticipated to occur in this part of the state, or are associated with wetland or riparian areas. There is no wetland or riparian habitat within the proposed easement corridor.

All potential BLM designated Sensitive and Strategic plant species known to occur within 5 miles of the easement corridor in Douglas County and Chelan County were specifically searched for. In addition, the surveyor looked for all BLM designated Sensitive and Strategic plant species for Washington (BLM list dated 11-15-2011). Eighty-three vascular plant species were identified during this survey (Appendix A). No federally listed, proposed, or BLM Sensitive or Strategic plant species were found during this survey.

The majority of the area is dry mixed forest dominated by ponderosa pine (*Pinus ponderosa*) and Douglas fir (*Pseudotsuga menziesii*) with a large shrub component. The overstory percentage of each species varies across the landscape due to high frequency of rock outcrops. Exposed rock is a primary component of the habitat and dictates vegetative cover. However, the site has considerable diversity of shrubs, forbs and grasses, as shown in Appendix A.

7.1.2 Environmental Effects from Alternative A (Proposed Action)

Approval of the easement corridor and proposed maintenance project would involve improving road access relocating structure 22/3 approximately 12 feet to the west to meet NERC required clearances. Since the original construction, native vegetation (shrubs, forbs, and grasses) have reclaimed portions of the transmission line access road and some sloughing occurred making the road narrow in places. The road will be widened where necessary and a new construction pad (approximately 25 feet wide) would be built at structure 22/3. Access road improvements would require large shrub removal, primarily *Amelanchier alnifolia* (serviceberry), *Purshia tridentata* (Antelope bitterbrush), and *Artemisia tridentata* (Big sagebrush). No mature trees are expected to be taken. With the exception of the landing pad to be built for the new 22/3 structure, the only vegetation management would occur along the existing transmission line access road.

Construction of the new landing pad for structure 22/3 will require sufficient fill to make a landing that is approximately 25 feet wide. Material for the fill will be taken from the immediate vicinity, from access road improvements, or, trucked in if necessary. The area in the immediate vicinity of structure 22/3 is dominated by rock (see photos in Appendix C).

Since no sensitive plant species were found during a survey of the project area, the proposed action will have “no effect” on any federally listed Threatened, Endangered, or Proposed plant species. It also will not contribute to a trend towards federal listing of any BLM designated Sensitive or Strategic plant species.

7.1.3 Environmental Effects from Alternative B (No Action)

No new impacts to vegetation would occur from implementation of this alternative, as the existing situation would continue.

7.1.4 Cumulative Effects

As noted above in section 7.1.2., since no special status plant species were found in the project areas, there would be no cumulative effects to this resource. Besides the original construction of the transmission line, Highway 97 is located near (within 100 - 300 feet) to the west of the transmission line adjacent to the BLM parcels. Except for the subject project, no future projects are reasonably foreseeable. Adjacent lands have been developed to best potential (residential or orchards), or are too steep to develop. Periodic wildfires also affect these lands, generally causing temporary impacts. Due to the steep topography and limited access from Highway 97, any incremental loss of vegetation from home sites and orchards is unlikely due to the topography and limited access.

7.2 Wildlife Resource

7.2.1 Affected Environment

The Project area falls within the Columbia Basin physiographic province (Franklin and Dyrness 1973), the dominant plant species along the transmission road are Ponderosa pine, Douglas fir, bitterbrush, big sagebrush, and serviceberry.

Wildlife occurring within the project area is comprised of those species typically associated with Ponderosa Pine Forests and Woodlands (PPFW) (Johnson and O'Neil, 2001). With over 230 vertebrate species known to occur within this habitat type across Oregon and Washington, this area supports a broad array of amphibians, reptiles, birds, and mammals. Common species in the area include habitat generalists such as coyote (*Canis latrans*), common raven (*Corvus corax*), and mule deer (*Odocoileus hemeonus*). The project area is located in critical winter range for mule deer, however, the proposed project would be completed prior to winter migration and the arrival of mule deer on the winter range.

Because the wildlife species associated with PPFW are not generally considered obligates of this habitat type, the distributional aspects of this habitat are not considered a limiting factor for wildlife (Johnson and O'Neil, 2001). Therefore, based on the limited duration and site-specific nature of the proposed action, the threshold for significant adverse impacts was defined as any adverse impacts to species listed as Threatened, Endangered, or Proposed under the Endangered Species Act (ESA) of 1973.

Historically, bald eagle (*Haliaeetus leucocephalus*) have successfully nested on the BLM parcel in the vicinity of the transmission line. Through routine monitoring by Chelan PUD, an active bald eagle nest was confirmed in March of 2013. As of June 6, 2013, that bald eagle nest was still active. During the site visit on May 16, 2013, an active red-tailed hawk (*Buteo jamaicensis*) nest was also discovered in the immediate vicinity of the transmission line.

7.2.2 Environmental Effects from Alternative A (Proposed Action)

The proposed project would occur after August 15, after the nesting season for the bald eagles and well as other nesting birds. No other mammal or bird species of concern are anticipated in the project area or were observed during site visits. While the project area is included as mule deer wintering range, the project would occur prior to winter migration and would have no effect on wintering mule deer. Thus, no potentially significant impacts to wildlife are expected to occur from implementation of the proposed action.

The impacts to wildlife habitat include removing shrubs from approximately 1,700 linear feet of previously disturbed road bed at 12 feet wide (0.47 acres total) and a landing for the new 22/3 structure that will be approximately 25 feet by 25 feet (0.014 acres). In total less than 0.5 acres will be disturbed, most of which previously disturbed to install and maintain the transmission line. Because the habitat suitability for wildlife in this area is already affected by the existing road, this project is not expected to substantially alter the overall character of this site. Additionally, the availability of suitable PPFW habitat is not generally considered a limiting factor for wildlife associated with Eastside (interior) forests (Johnson and O'Neil, 2001).

Because the proposed project would have no effect on species listed as Threatened, Endangered, or proposed under the Endangered Species Act (ESA) of 1973, no cumulative impacts have been identified for federally protected species. Approximately 0.5 acres of mixed shrub land (big sagebrush, bitterbrush, and serviceberry) along the road, which is bordered by a Ponderosa pine and Douglas fir mixed Woodland habitat on BLM-administered lands would be disturbed by the proposed project. With approximately 125 acres of Ponderosa Pine, mixed woodland habitat on the BLM parcel corresponds to a total disturbance of 0.004% of the available habitat. Based on the substantial availability of suitable habitat elsewhere in the area, the incremental disturbance expected from this project would not significantly decrease the availability of suitable habitat in the project area.

7.2.3 Environmental Effects from Alternative B (No Action)

No new impacts to wildlife resources would occur from implementation of this alternative, as the existing situation would continue.

7.2.4 Cumulative Effects

As noted in section 7.2.2, above, no cumulative effects on threatened, endangered, or proposed wildlife species are anticipated due to this action. In addition to the creation of the transmission line road, the construction of Highway 97 adjacent to BLM lands has contributed to the conversion of the adjacent habitat. The proposed project will disturb a small percentage (0.004%) of the existing habitat, which is adjacent to the highway and along a previously built transmission access road. Except for the subject project, no future projects are reasonably foreseeable. Other lands in the analysis area are almost exclusively privately owned, and, over the years, these lands have seen increasing disturbance and fragmentation due to incremental conversion to home sites and orchards. Periodic wildfires in the vicinity have caused temporary impacts to habitat.



Figure 1. Location of Rocky Reach to Chelan transmission line crossing BLM land, proposed easement area, and location of sturcture 22/3.

7.3 Cultural Resources

7.3.1 Affected Environment

Historical Context: Native Peoples Pre-Contact Period - The earliest evidence of human occupation of the South Central Plateau area dates to approximately 11,250 years before present (B.P.) at the Richey-Roberts Clovis site in East Wenatchee (Mehring and Foit 1990). Other sites in the region dating to this period between about 12,000 and 8000 B.P. include the Lind Coulee site, which contained stemmed dart points (Irwin and Moody 1978). Faunal remains of salmon as well as suckers, minnows, and sturgeon were found at the Wells Reservoir site, also dating to this period (Ames et al. 1998:103-104).

By the middle Holocene (approximately 8000 to 5000 B.P.), stone tool assemblages at sites in the area include large bifacial knives and edge-ground cobbles. The earliest pit houses of the area have been found at site 45OK11 in the Chief Joseph Reservoir to the northeast of the current project area, dating to approximately 5200 B.P. (Ames et al. 1998). Leaf-shaped projectile points, stemmed projectile points, and microblades have also been found at sites dating to the middle Holocene (Grabert 1974; Pokotylo and Mitchell 1998).

Late Holocene (5000 B.P. to A.D. 1850) sites in the area are characterized by evidence for increased sedentism, larger populations, and a subsistence strategy that included a greater emphasis on anadromous fish and root crops. By about 3900 B.P., pit houses were common throughout the region and large villages were present by about 2000 B.P. Salmon was the dominant subsistence resource after about 3900 B.P. The ethnographically documented pattern of large winter villages developed throughout the region during this period (Ames et al. 1998).

Native Peoples – Contact Period - The current project area is located on ceded lands of the Yakama Nation and within the traditional territory of the Sinkayuse, a Salish-speaking group that has also been referred to as the Columbias and later, beginning in the nineteenth century, the Moses-Columbias in honor of Chief Moses (Miller 1998; Ruby et al. 2010). The Sinkayuse are one of several Middle Columbia River Salishan regional groups that lived along the Columbia River and its tributaries on the Columbia Plateau prior to the establishment of the Colville Reservation in 1872 (Miller 1998:253). Other nearby native groups included the Chelan, Entiat, Wenatchee, and Methow.

The Sinkayuse maintained an extensive network of external relations that allowed for the acquisition of horses from groups further east on the plateau (Miller 1998). This transportation resource facilitated trade with Coast Salish peoples and other groups, expanding the resource base beyond locally available goods. Within the region, mountain goats, alpine mammals, roots, berries, and numerous varieties of fish were widely available. Summer camps were situated near resource concentrations in addition to those locations where hunting, fishing, and the procurement of technological resources took place (Deaver et al. 2001:4-17).

Major Sinkayuse villages were located along the Columbia River and its tributaries to the south and east, but no known village locations were ethnographically recorded on the south bank of the Columbia River near the project (Miller 1998). Within the immediate area, Chelan settlements have been noted on the north bank of the Columbia River, southwest of its confluence with the Chelan River, including one (*ni ʔyláqñ*) located within approximately 1.6 kilometers (km) (1 mile [mi]) to the north of the current area of potential affect (APE) (Miller 1998:254). Both the Chelan and the Sinkayuse were largely displaced from traditional tribal areas once the Colville reservation was established in 1872. Nevertheless, traditional tribal interest may still exist in the vicinity of the APE.

Euroamerican History – Euroamerican settlement of areas near the current project began during the mid-nineteenth century as placer mining became increasingly important within the region. The mining of gold was a

draw for many immigrant laborers looking to make their fortune in the West. *An illustrated History of the Big Bend Country* (Western Historical Publishing Company 1904) notes that Chinese miners were particularly drawn to the Columbia River in this region from California, as the various waterways feeding into the river provided ample opportunities to pan for small amounts of gold.

Rossillon (1983) notes that placer gold in alluvial deposits of the Columbia River first drew miners to the general region in the late 1850s, and that the Chinese became the most predominate ethnic group to pursue mining activities and opportunities in the Wenatchee area by 1864. Various sources note that a Chinese trading post and camp related to early historic period mining activities once flourished approximately 9 km (5.6 mi) northeast of the current project area on the south bank of the Columbia River, across from its confluence with the Chelan River (Fries 1949; Rossillon 1983; Western Historical Publishing Company 1904).

Although the current project area is located near early settlement and trade locations, no such activities are known to have occurred within the APE during the historic period. This is likely due to the severity of the north slope of the Waterville Plateau, which creates a significant sun shadow and is associated with substantial rock fall. These factors would have limited development opportunities without first requiring extreme modification of the landscape. A General Land Office (GLO) map of Township 26 North, Range 22 East, Willamette Meridian depicts a trail following the south bank of the Columbia River within Sections 8 and 9, or immediately north of the APE on a river terrace (GLO 1887). All farms and settlements within this general area were not at the river's edge but were instead on top of the plateau to the south, which is labeled as "Columbia River Bluffs" (GLO 1887).

Near and after the turn of the twentieth century, attentions of early settlers were turned to harnessing the power of the Columbia River and adjacent waterways to provide both water for irrigation and hydroelectricity to support expansion of the population and the development of new economies. Early efforts to irrigate the arid lands of the region led to an abundance of orchards, which continue to drive the local economy through the modern era. Like the orchards that dot irrigated lands adjacent to the Columbia River, hydroelectricity projects have left a vast imprint on this portion of Central Washington; water levels have raised and submerged former shorelines and transmission lines of various types and sizes carry electricity to the communities of Entiat, Orondo, and Wenatchee. Hydroelectric projects located within the general proximity of the current project area include the Lake Chelan Hydroelectric project which was completed in 1927, and the Rocky Reach Hydroelectric project that became operational during the 1960s (Chelan County PUD 2013a, 2013b).

7.3.2 Cultural Resources Review

A cultural resources inventory was conducted on all lands expected to be disturbed by the project. The inventory was completed by Archaeological Investigations Northwest (Cultural Resource Survey for the Chelan-Wenatchee Pole Replacement Project, Douglas County, Washington Report No. 3086). No archaeological resources were identified. One historic resource, a segment of the Rocky Reach-Chelan 115 kV Transmission Line, was identified within the project APE but was recommended not eligible for listing in the NRHP. The transmission line was identified as a typical design, was moved from its original alignment once the Rocky Reach Dam was constructed and operational in 1960, and was not constructed in association with the original build-out of either the Chelan Falls or Rocky Reach Hydroelectric projects. It lacks both the historical integrity to be considered as eligible for listing in the NRHP, has no strong associations to patterns of our history or people of our past (Criteria A and B), and is not a distinctive example of a type, period, or method of construction (Criterion C). No further work was recommended for the resource.

7.3.3 Environmental Effects from Alternative A (Proposed Action)

The cultural resources survey report concluded that no Historic Properties would be affected by the proposed right-of-way or by the power pole replacement. Determination of effects letters were sent by the BLM to the Washington State Department of Archaeology & Historic Preservation (DAHP), the Colville Confederated Tribes and the Yakama Indian Nation on April 29, 2013. Concurrence with the determination of “No Historic Properties Affected” was received from DAHP on May 2, 2013. Responses were not received from any of the tribes consulted.

7.3.4 Environmental Effects from Alternative B (No Action)

No impacts to cultural resources would occur from implementation of this alternative, as the existing situation would continue.

7.3.5 Cumulative Effects

Since no Historic Properties would be directly or indirectly affected, there would be no cumulative effects.

7.4 Forestry Resources

7.4.1 Affected Environment

As noted in the Vegetation section above, the BLM portion of the project area is dry forest with a mix of ponderosa pine and Douglas fir.

7.4.2 Environmental Effects from Alternative A(Proposed Action)

Approximately 8,000 acres of the Badger Mountain area is covered by conifer forest. The proposed project would clear approximately 0.7 acres of forestland on the BLM’s parcel and 13 acres for the total project. In total, 13 acres or approximately 0.1625% of the total forested area would be cleared. Due to the small acreage and percentage of the forested landscape involved, the impacts of this project would be negligible.

7.4.3 Environmental Effects from Alternative B (No Action)

No impacts to the forested resource would occur from implementation of this alternative, as the existing situation would continue.

7.4.4 Cumulative Effects

The potential loss of forested acreage from this project is noted in section 6.4.2, above. Besides the original creation of the county road, there are no known projects that have impacted the BLM parcel in the past. Except for the subject proposal, no future projects are reasonably foreseeable. Other lands in the analysis area are almost exclusively privately owned, and, over the years, have seen an incremental loss in forested acres due to conversion to residential home sites and construction of attendant access roads. In addition, periodic wildfires have caused temporary losses of forested acres in the vicinity. The incremental loss of forested land that has occurred from home sites is anticipated to continue at a lesser rate in the short term, due to a decreased demand for rural home sites in this vicinity.

SECTION 8: TRIBES, INDIVIDUALS, ORGANIZATIONS, OR AGENCIES CONSULTED

8.1 Consultation with Affected Tribes and SHPO

The BLM is the federal agency responsible for conducting NHPA Section 106 consultation with affected Indian Tribes (Colville Confederated Tribes & Yakama Nation) and the Washington Department of Archaeology and Historic Preservation (DAHP). The BLM initiated consultations for the project on December 14, 2012 with the Washington State Department of Archaeology & Historic Preservation (DAHP), the Colville Confederated Tribes (CCT) and the Yakama Nation. Concurrence on the APE was received from DAHP on December 18,

2012. The CCT responded on December 21, 2012 concurring with the APE and expressing interest in receiving a copy of the inventory report. Responses were not received from the Yakama Nation.

BLM submitted copies of the original survey completed by AINW and determination of “No Historic Properties Affected” to DAHP, CCT, and Yakama Nation on April 29, 2013. On May 2, 2013, DAHP concurred with the determination of “no effect.” No comments were received from the CCT or Yakama Nation.

SECTION 9: MITIGATION

Neither of the alternatives will generate potential affects that would warrant mitigation measures. Design features identified in this document, such a performing construction activities between August 15th and November 1st will eliminate the potential effects to nesting birds and to critical mule deer winter range. To reinforce the importance of completing construction by November 1st, a stipulation to that effect should be included in the right-of-way grant.

SECTION 10: LIST OF PREPARERS

- Von Pope, Wildlife Biologist, Chelan County PUD
- Kelly Cordell-Stine, Wildlife Biologist, Chelan County PUD
- William Schurger, Wenatchee Realty Specialist
- Mark Hatchel, Border Realty Specialist
- Francoise Sweeney, Wenatchee Archaeologist
- Jennifer Burns, Chelan County PUD
- James Caldwell, Project Manager, Chelan County PUD

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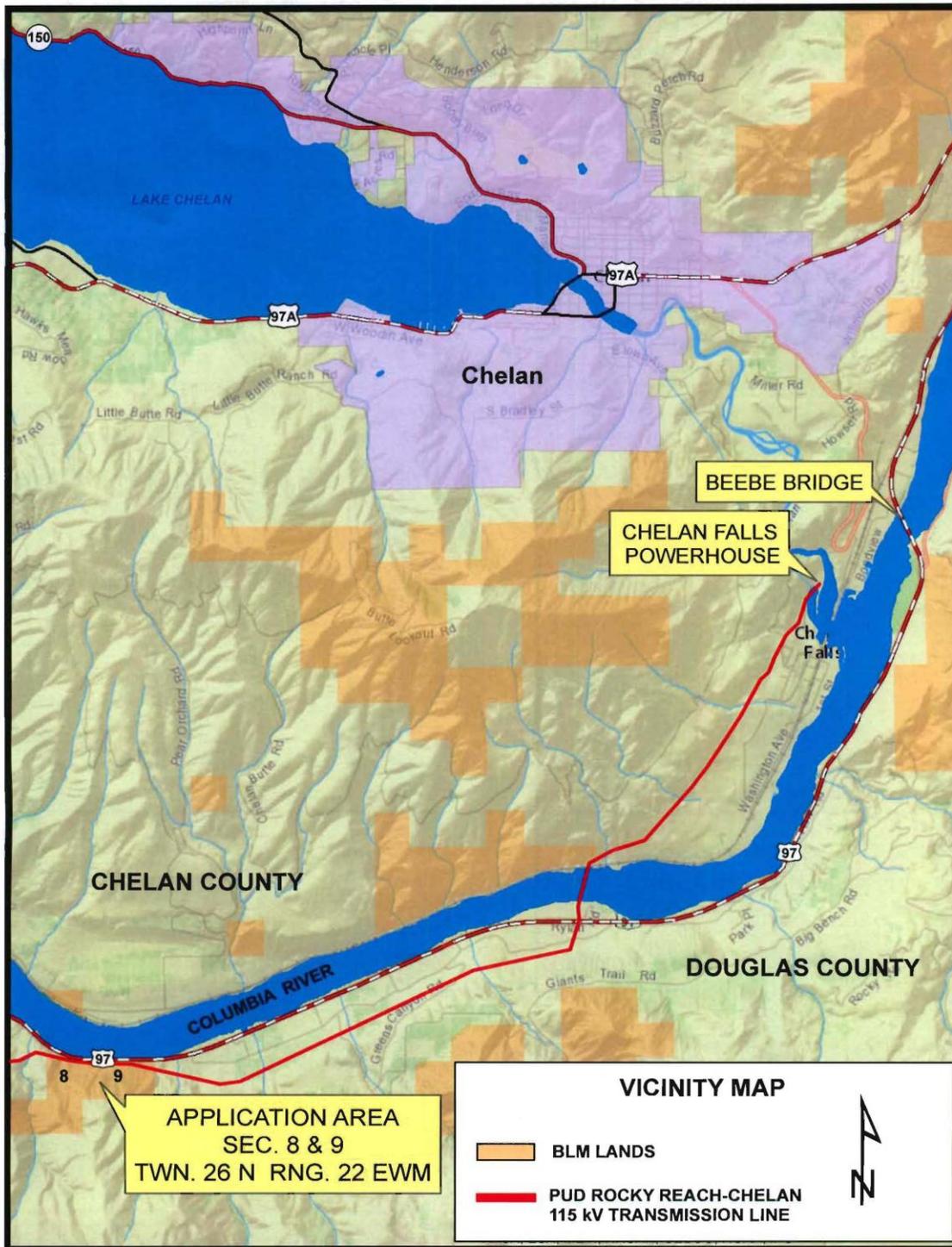
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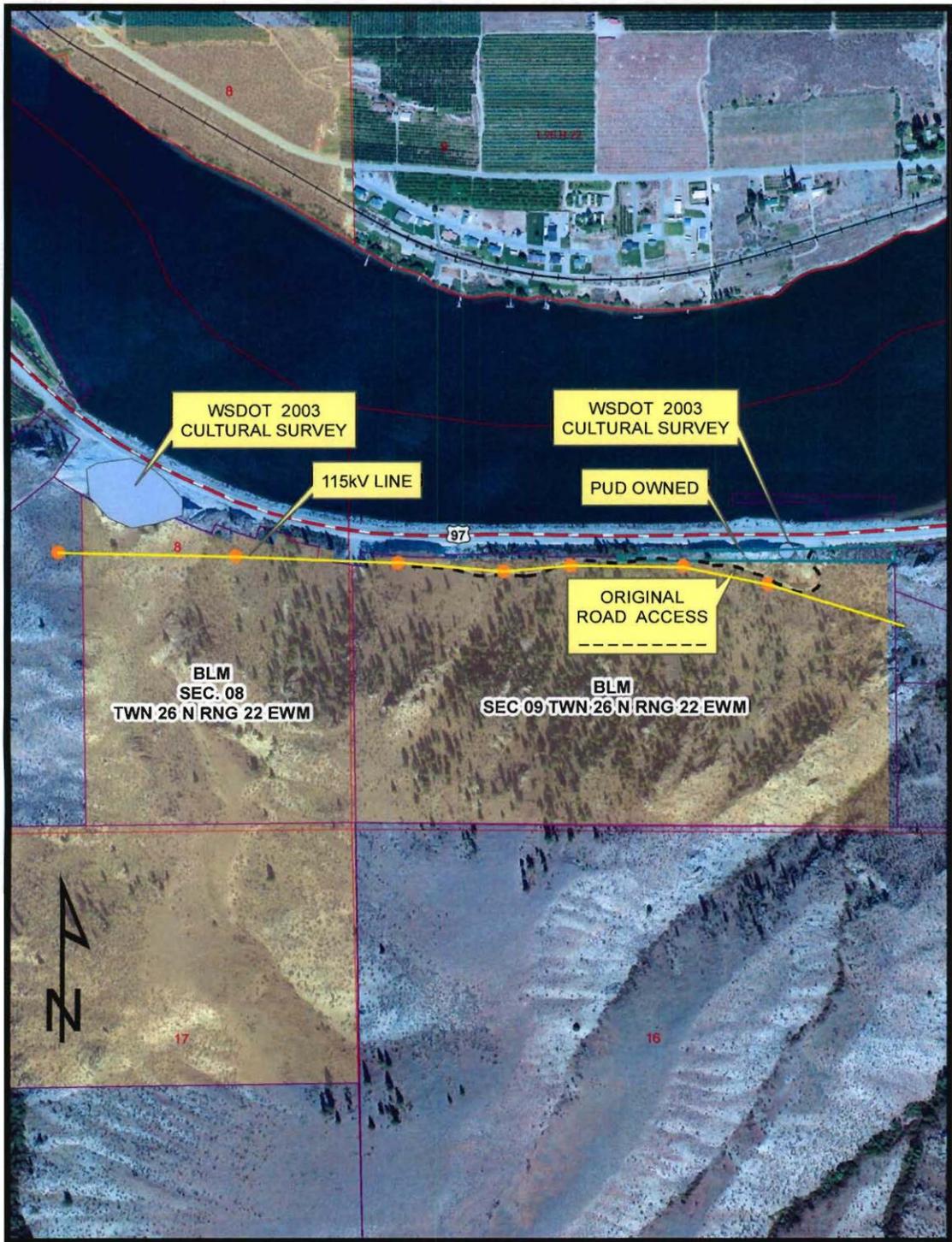
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APPENDIX A: ICINITY MAPS





APPENDIX B: PLANT INVENTORY

List of vascular plants observed by Chelan PUD within the proposed 100-foot wide right-of-way on the BLM parcel during a site inventory on 16 May 2013.

Scientific name	Common name
<i>Acer glabrum</i>	Douglas maple
<i>Achillea millefolium</i>	Yarrow
<i>Agoseris glauca</i>	Pale agoseris
<i>Agoseris heterophylla</i>	Annual agoseris
<i>Agoseris retrorsa</i>	Spearleaf agoseris
<i>Agropyron sp.</i>	Wheatgrass species
<i>Amaranthus sp.</i>	Pigweed species
<i>Amelanchier alnifolia</i>	Serviceberry
<i>Amsinckia menziesii</i>	Small-flowered fiddleneck
<i>Antennaria rosea</i>	Rosy pussytoes
<i>Apocynum androsaemifolium</i>	Spreading dogbane
<i>Arabis holboellii</i> var. <i>retrofracta</i>	Holboell's rockcress
<i>Artemisia tridentata</i>	Big sagebrush
<i>Balsamorhiza sagittata</i>	Arrowleaf balsamroot
<i>Brodiaea douglasii</i>	Large-flowered tritelia
<i>Bromus tectorum</i>	Cheatgrass
<i>Calochortus lyallii</i>	Lyall's mariposa lily
<i>Ceanothus velutinus</i>	Snowbrush ceanothus
<i>Centaurea diffusa</i>	Diffuse knapweed
<i>Chaenactis douglasii</i>	Hoary false yarrow
<i>Chrysothamnus nauseosus</i>	Common rabbitbrush
<i>Chrysothamnus viscidiflorus</i>	Green rabbitbrush
<i>Claytonia perfoliata</i>	Miner's lettuce
<i>Clematis ligusticifolia</i>	White clematis
<i>Collinsia parviflora</i>	Small-flowered blue-eyed Mary
<i>Collomia grandiflora</i>	Large-flowered collomia
<i>Comandra umbellata</i>	Pale comandra
<i>Crepis occidentalis</i>	Western hawksbeard
<i>Crepis tectorum</i>	Annual hawksbeard
<i>Delphinium nuttallianum</i>	Upland larkspur
<i>Dodecatheon pulchellum</i>	Shooting star
<i>Elymus cinereus</i>	Great Basin wildrye
<i>Epilobium sp.</i>	Willowherb species
<i>Erigeron linearis</i>	Fine-leaved daisy
<i>Eriogonum heracleoides</i>	Parsnip-flowered buckwheat

<i>Eriogonum niveum</i>	Snow buckwheat
<i>Eriophyllum lanatum</i> var. <i>integrifolium</i>	Common woolly sunflower
<i>Festuca idahoensis</i>	Idaho fescue
<i>Galium serpticum</i>	Shrubby galium
Scientific name	Common name
<i>Galium triflorum</i>	Sweet-scented bedstraw
<i>Hackelia arida</i>	Sagebrush stickseed
<i>Heuchera cylindrica</i>	Round-leaved alumroot
<i>Holodiscus discolor</i>	Ocean-spray
<i>Koeleria cristata</i>	Prairie Junegrass
<i>Lactuca serriola</i>	Prickly lettuce
<i>Lithophragma parviflorum</i>	Small-flowered woodland star
<i>Lithospermum ruderales</i>	Stoneseed puccoon
<i>Lupinus</i> sp.	Lupine species
<i>Madia gracilis</i>	Grassy tarweed
<i>Mahonia aquifolium</i>	Oregon grape
<i>Melilotus</i> sp.	Sweetclover
<i>Mustard</i> sp.	Mustard species
<i>Penstemon procerus</i>	Littleflower penstemon
<i>Penstemon speciosus</i>	Showy penstemon
<i>Phacelia linearis</i>	Thread-leaved phacelia
<i>Philadelphus lewisii</i>	Mock-orange
<i>Phlox longifolia</i>	Long-leaf phlox
<i>Phlox speciosa</i>	Showy phlox
<i>Phlox</i> sp.	Phlox species
<i>Pinus ponderosa</i>	Ponderosa Pine
<i>Poa bulbosa</i>	Bulbous bluegrass
<i>Poa secunda</i>	Sandberg bluegrass
<i>Potentilla glandulosa</i>	Sticky cinquefoil
<i>Prunus virginiana</i>	Choke cherry
<i>Pseudoroegneria spicata</i>	Bluebunch wheatgrass
<i>Pseudotsuga menziesii</i>	Douglas-fir
<i>Purshia tridentata</i>	Antelope bitterbrush
<i>Rhus glabra</i>	Smooth sumac
<i>Ribes cereum</i>	Wax currant
<i>Rosa woodsii</i>	Woods' rose
<i>Rubus idaeus</i>	American red raspberry
<i>Salvia dorrii</i>	Purple sage
<i>Sambucus caerulea</i>	Blue elderberry
<i>Saxifraga</i> sp.	Saxifrage species

<i>Senecio integerrimus</i>	Western groundsel
<i>Silene parryi</i>	Parry's silene
<i>Spiraea betulifolia</i>	Birch-leaved spirea
<i>Stipa lemmonii</i>	Lemmon's needlegrass
Scientific name	Common name
<i>Stipa comata</i>	Needle and thread
<i>Taraxacum officinale</i>	Dandelion
<i>Toxicodendron rydbergii</i>	Poison ivy
<i>Tragopogon dubius</i>	Yellow salsify
<i>Verbascum thapsus</i>	Wooly mullein
<i>Woodsia scopulina</i>	Rocky Mountain woodsia
<i>Zigadenus venenosus</i>	Meadow death-camas

APPENDIX C: PHOTOS

Photographs of site taken on 30 May of 2013



Lower portion of access road, structure 22/6 in background, near bald eagle nest.



Photo of habitat at structure 22/3.

