U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
SPOKANE DISTRICT, WASHINGTON STATE

ENVIRONMENTAL ASSESSMENT TITLE PAGE

ENVIRONMENTAL ASSESSMENT NO. OR-134-01-EA-001	**SERIAL NUMBER** WAOR 55228	**DATE OF REPORT** February 23, 2001

RESOURCE AREA	**COUNTY**
Wenatchee	Chelan

TYPE OF ACTION

Power Transmission/Distribution Line Right-of-Way

APPLICANT'S NAME	**ADDRESS (Include zip code)**
Public Utility District No. 1 of Chelan County	P.O. Box 1231 Wenatchee, Washington 98807-1231

DATE(S) OF FIELD EXAMINATION January 8, 1999, June 2, 2000, Feb. 1, 2001

LANDS INVOLVED

Township	Range	Meridian	Section	Subdivision	Acres
27 N.	22 E.	Willamette	19	Portion of the W½NE¼ *acreage for 75' wide R/W	2.92*

PURPOSE OF REPORT:

To determine the feasibility of granting a right-of-way for a power transmission/distribution line to the PUD No. 1 of Chelan County.

DECISION RECORD AND FINDING OF NO SIGNIFICANT IMPACT
PUD NO. 1 OF CHELAN CO. KNAPP COULEE-LAKE CHELAN 115kV/12.47kV LINE
(WAOR 55228)

A. Recommendation

It is my recommendation that the proposed action be approved and the PUD be granted a right-of-way for the Chelan PUD's Knapp Coulee electric power transmission/distribution line. I further recommend that the R/W be issued for a term of 20 years, with the option for renewal, and that it be subject to the standard operating procedures for this type of project, as well as stipulations to address items of concern listed in the environmental assessment.

B. Rationale

Pursuant to Title V of the Federal Land Policy and Management Act of 1976, as amended (43 U.S.C. 1761) the BLM may issue a right-of-way to the PUD No. 1 of Chelan County for the subject project. To do so will allow the PUD to upgrade their current power delivery system in the south shore Lake Chelan area. This project will provide better reliability for existing residents, as well as meeting projected future electric power demands due to increased developments and population. The route selected by the PUD is a reasonable, low cost route and would cause only slight environmental impacts. The siting of this powerline on the public land would be compatible with existing uses taking place.

/s/William Schurger 2/23/2001
Realty Specialist Date

C. Finding of No Significant Impact

Based on the environmental assessment and other available information, I have determined that the proposed action and approved mitigation measures are adequate. Consideration has been given to all applicable resource values, and the proposed action will not have any significant effects on the quality of the human environment. Therefore, an environmental impact statement is not required to further analyze the environmental effects of the proposed action.

/s/James F. Fisher 2/23/2001
Field Manager, Wenatchee Resource Area Date

D. Decision

The above recommendations are approved as the decision of the Bureau of Land Management on the proposed action.

/s/ James F. Fisher 2/23/2001
Field Manager, Wenatchee Resource Area Date

I. INTRODUCTION

A. Background Information and Need for the Proposed Action

This report addresses the Public Utility District (PUD) No. 1 of Chelan County's application to construct a new 115 kV electric power transmission line with a 12.47 kV distribution line underbuild across one tract of public land in the Knapp Coulee area of Chelan County, Washington. This proposal is part of the PUD's Knapp Coulee-Lake Chelan Tap project. The proposed transmission line would tie to an existing powerline along Stayman Road (next to the Columbia River), at a point just east of the Knapp Coulee highway tunnel, and travel up to and through Knapp Coulee to a proposed substation site near the planned Hawks Meadow residential development on the south side of Lake Chelan. The line mostly parallels U.S. Route 97A, but is generally not located within the highway right-of-way limits. A map of the powerline route across the BLM tract is included in the appendix to this report.

The PUD proposes to complete the project in phases. During 2001, they would construct the 115 kV transmission line. The 115 kV line would then be connected to a distribution line and operated only as a 12.47-kV feeder to meet immediate need for electric power in the south shore area. After a new substation is constructed near the intersection of U.S. Route 97A and South Lakeshore road in the year 2008, the PUD would connect the line to the 115 kV powerline along Stayman Road to provide 115 kV power to the substation.

The purpose of the project is to supply power along the south shore area of Lake Chelan. The PUD feels the powerline is needed because of the ever-increasing population in this area of Lake Chelan. This area is currently served by a single 12.47 kV distribution line from the Chelan substation. Said powerline often operates near its maximum capacity and brown-outs or other outages are becoming a more frequent occurrence for local customers. Ongoing development of residential projects is expected to exceed the capacity of the existing line. Therefore, the PUD feels that for the long term, reliable electrical power for this growing area must come from establishing a new substation in the south shore area, supported by a reliable 115 kV source of power.

B. Conformance With Land Use Plan

The proposed action is in conformance with the right-of-way granting policy in the Spokane Resource Management Plan, as amended (December 1992). See pages 8 and 23 in August 1985 RMP.

C. Relationship to Existing Statutes, Regulations, or Other Plans

The granting of rights-of-way for power distribution lines is authorized by Title V of the Federal Land Policy and Management Act of 1976 (43 USC 1761). The proposed project is in conformance with Chelan County zoning regulations.

II. PROPOSED ACTION AND ALTERNATIVES

A. Proposed Action

The proposed action is to grant a right-of-way (R/W) to the PUD No. 1 of Chelan County, authorizing the construction, reconstruction, operation, and maintenance of a 115 kV electric power transmission line, including a 12.47 kV underbuild, across a portion of the W½NE¼, Section 19, T.27N., R.22E., Willamette Meridian. The R/W grant would be issued for a 20 year term with the right of renewal.

The right-of-way requested by the PUD would be 75 feet wide and approximately 1,700 feet long, for a total use of about 3 acres of public land. It would include conductors for the main purpose of the line, 115 kV power transmission, and also include separate conductors for 12.47 kV power distribution (that is, distribution of electric power to users along the route who are connected into the existing 12.47 kV powerline).

Construction of the line would involve placement of three wood H- pole structures and one wood three-pole structure (for an angle point). Pole holes would be dug by backhoe, auger or hand. The poles would vary between 60 and 90 feet long (total) and be embedded in the ground to depths that are 10 percent of their length, plus 2 feet. The four towers would use six anchors total, with two guylines per anchor. Anchors would either be installed in the ground by trench, dug with a backhoe or by hand, or by using rock bolts. Screw anchors are not feasible in this location. Access to most of the pole sites would be by overland travel from U.S. Route 97A. The three pole angle tower would be reached by foot and helicopter, or by a piece of equipment called a spider backhoe (if feasible). No new road construction nor temporary work areas are requested.

Project Design Features:

If cultural or paleontological resources are located in the project area during construction activities, a re-design or re-route of the project may be needed to avoid the resource. If cultural sites cannot be avoided, consultation with the Washington State Office of Archaeology and Historic Preservation, tribal governments or historical societies as appropriate, and in some cases the Advisory Council on Historic Preservation will precede project implementation.

Any right-of-way grant issued by BLM would include standard stipulations used by BLM for electric transmission/distribution lines. Included would be stipulations to ensure that the PUD adopts a design that minimizes the risk of raptor electrocution, uses construction methods minimizing soil and vegetation disturbance, rehabilitates and reseeds the site if needed, and controls any increase in noxious weeds. For example, specific stipulations would be included directing the PUD to control weed infestations on the public land (directly or indirectly caused by its activities) and ensure that all vehicles accessing the public land are free of weed seed.

B. Alternatives

The alternative to the proposed action is No Action, which is to reject construction of the proposed transmission line across the subject public land.

C. Other Alternatives Considered but Not Analyzed in Detail by BLM

Before the PUD filed an application for this powerline with BLM, several other alternative alignments were considered and studied. These are described in a document titled "Substation Site and Route Selection Study-South Shore 115/12.5 kV Substation and 115 kV Transmission Tap," supplied by the PUD with its application to BLM. The study was prepared by a contractor to the PUD, Commonwealth Associates, Inc. of Bothell, Washington. Three alternate alignments were considered in the study besides the route applied for: 1) a route to the north through Navarre Coulee and across Bear Mountain, 2) a route from the Manson area across Lake Chelan near an existing 12.5 kV submarine cable, then to the southeast, and 3) a route from Chelan to the west along the south side of Lake Chelan. These alternate alignments were ultimately discarded for reasons such as excessive length and expense, impacts to undisturbed roadless areas, impacts to Chelan urban area, and potential poor reliability due to difficult access.

After choosing the Knapp Coulee route as the most probable, the PUD then considered alternatives to placing the line in the bottom of the Coulee. Analyzed options included traveling over Chelan Butte east of Knapp Coulee for either most or a portion of the line, or traveling along the west side of U.S. Route 97A, starting at Davis Canyon. These alternatives were eliminated and the route along the bottom of the Coulee was selected. The proposed route is preferred because it is short and direct; follows the previously disturbed highway corridor and is readily accessible; avoids most steep and unstable soil areas, and; minimizes the need for new access roads, limiting access road impacts.

III. AFFECTED ENVIRONMENT

A. Physical Environment

General Setting: The proposed powerline would be located between the Columbia River at the Stayman Road and the south shore of Lake Chelan, passing through the bottom and lower side slopes of Knapp Coulee. The route parallels U.S. Route 97A for all of its length except for a short portion at the south end (from the Stayman Road up a short, steep drainage to U.S. 97A). Although the alignment stays on the east side of U.S. 97A for most of its distance, at its very north end, it would cross to the west side of the highway to reach the planned substation site.

The project area is situated along a coulee that passes through a dry east-west trending ridge between Lake Chelan and the Columbia River. The major land form on the east end of the ridge is Chelan Butte and on the west side is Bear Mountain. The BLM portion of the project is located at the apex of the coulee, which drains both north to Lake Chelan and south to the Columbia River. Slopes on the BLM portion range from nearly level on the bottom of the coulee to steep and very steep on the adjoining hillsides. The BLM tract is partially forested and includes areas of rock outcrop.

Vegetation: Vegetation on the portion of the public land actually crossed by the proposed line is mostly Douglas fir/ponderosa pine forest, due to the northwest facing aspect of the site. More exposed areas of the tract include shrub-steppe. The forested area is stocked with Douglas fir and ponderosa pine of various sizes, with an understory of bluebunch wheatgrass, serviceberry, oceanspray, Oregon grape and bitterbrush. The site was inventoried for special status plant species or high quality plant communities on June 2, 2000; however, none were found.

Wildlife: The Knapp Coulee area is a mix of dry forest and shrub-steppe habitats which support locally common species such as mule deer, coyotes, house finches, magpies, and gopher snakes. Golden eagle territories overlap the coulee; the area also provides important mule deer winter habitat. There is one historical (1969) record of western gray squirrels in the area, but no recent sightings. No threatened or endangered wildlife are known to exist on or near this tract.

Cultural Resources: A cultural resource file search, literature review and field inventory of the powerline route was completed by Archaeologic and Historical Services (AHS), Eastern Washington University, who were contracted by the PUD. The cultural work included a survey of the entire powerline route and the proposed substation site, and met BLM criteria for Class III field inventory.

The project area is within the traditional territory of the Chelan Indians, one of the Middle Columbia Salish groups located east of the Cascade crest. During the early historic

period, Chelan territory was recognized to include the area centered on Lake Chelan extending roughly from Navarre Coulee, just south of the project area, north to the vicinity of the Methow River.

According to Office of Archaeology and Historic Preservation files, no Traditional Cultural Properties (TCPs) or archaeological sites have been recorded within the project area. However, field inventory by AHS identified six historic sites including a rock cribbing feature and debris scatters in the Area of Potential Effect. Consultation has been initiated with the Confederated Tribes of the Colville Reservation to determine if sacred areas, traditional cultural properties, or tribal interests would be affected by the proposed project.

Visual Resources: The proposed project is located directly adjacent to the east side of U.S. Route 97A, a major north-south thoroughfare on the west side of the Columbia. A portion of the east side of this highway from mile post 228.3 to mile post 230.3 has been designated as scenic by the Washington State Department of Transportation. This highway is heavily used by recreation traffic, as it is the most direct route to the popular Lake Chelan area from population centers in Western Washington. Knapp Coulee is largely natural in appearance, but has been subject to a certain amount of development. Man-made features visible from the highway included orchards, residential dwellings, fences, a gravel pit, and a 12.47 kV powerline (single pole). Little screening exists, so most of these features are clearly visible by passing motorists.

B. Land Status

The Master Title Plats indicate the surface and mineral estate of the above described public lands are owned by the United States. The only encumbrance known to affect the tract is a Federal Aid Highway right-of-way grant issued to the Washington State Department of Transportation for U.S. Route 97A. The subject R/W has a total width of 200 feet; however, the PUD's requested R/W does not overlap. There are no mining claims of record, the land is not leased for grazing, and besides the highway R/W, there are no other encumbrances known to affect the subject property.

Primary Use of Subject Public Land: This tract is primarily used for open space and as a backdrop for US Route 97A. Some wildlife use also occurs. Because the BLM tract connects with Forest Service lands to the west, it's possible that a minor amount recreation use takes place. However, there are no parking areas on the BLM, and motorists leaving their vehicles within the highway right-of-way could be subject to towing by the State Highway Patrol.

IV. ENVIRONMENTAL IMPACTS

A. Proposed Action

Approval of the proposed action would mean the installation of three H-pole and one three-pole structure on the subject public lands. The effects from this action would be primarily concentrated on impacts to the plant community and soil resources from pole and guyline placement, and visual intrusion of the powerline into a major travel corridor (U.S. Route 97A).

Surface disturbance from construction would be minimized since the PUD does not need to construct or reconstruct access roads to get equipment in to complete the work. Instead, they would travel overland to excavate and place the poles on three of the sites, and use hand labor and a helicopter to excavate and place the poles for the triple pole angle tower. Alternately, a spider backhoe could be used to dig the holes at the angle tower site, provided that surface disturbance could be minimized. No temporary work areas would be located on the BLM land.

There would be temporary damage to and loss of vegetation near most of the pole sites and guyline anchors areas due to excavation and trampling by heavy equipment. The presence of a moderate amount of surface rock may help to limit disturbance to the soil. The PUD would remove all of the trees and some of the taller shrubs within the 75 feet wide corridor of the R/W, and any danger trees within 12.5 feet of either side of the corridor limit. All cut vegetation would be removed offsite. Vegetation at the site could also be impacted by infestations of noxious weeds during and after construction. Portions of the adjoining land have sizeable infestations of knapweed, which would likely increase due to construction activities.

Although construction and maintenance could displace or disturb wildlife, resident wildlife, which have probably habituated to the presence of vehicles and people along the highways, should experience only short term effects. Activities should be far enough from golden eagle nest locations to cause only minimal disturbance of eagles. Once in place, the transmission towers and lines would provide perches for kestrels, red-tailed hawks, golden eagles, ravens, and other raptors which could possibly enhance hunting opportunities near the highway. Site reclamation could have mixed effects, depending on the degree of successful establishment of desirable species. Failure of seedings and weed invasion would create degraded habitat, but success could enhance habitat quality and possibly attract grazers such as mule deer into the right-of-way in late winter or early spring. The project would have no effect on listed species.

The construction of the powerline on the BLM portion of the alignment would cause a minor amount of visual degradation. Because the powerline would be partly screened by a layer of mature trees between the line and the highway, the impact would be minor. The most visible structure would be the triple-pole angle tower, which would be located on a west facing, grassy open area above the high point of the coulee floor. Since the structures will be wood poles with polymer, standoff insulators, they should provide a

minimal, streamlined appearance. The location near the coulee bottom would mostly minimize silhouette or outline views against a skyline background.

The following critical elements, not discussed above, have been analyzed and would not be affected by this action: Air and water quality, areas of critical environmental concern, farmlands, floodplains, environmental justice, wastes (hazardous or solid), wetlands/riparian zones, wild and scenic rivers, wilderness values, and water quality (ground and surface).

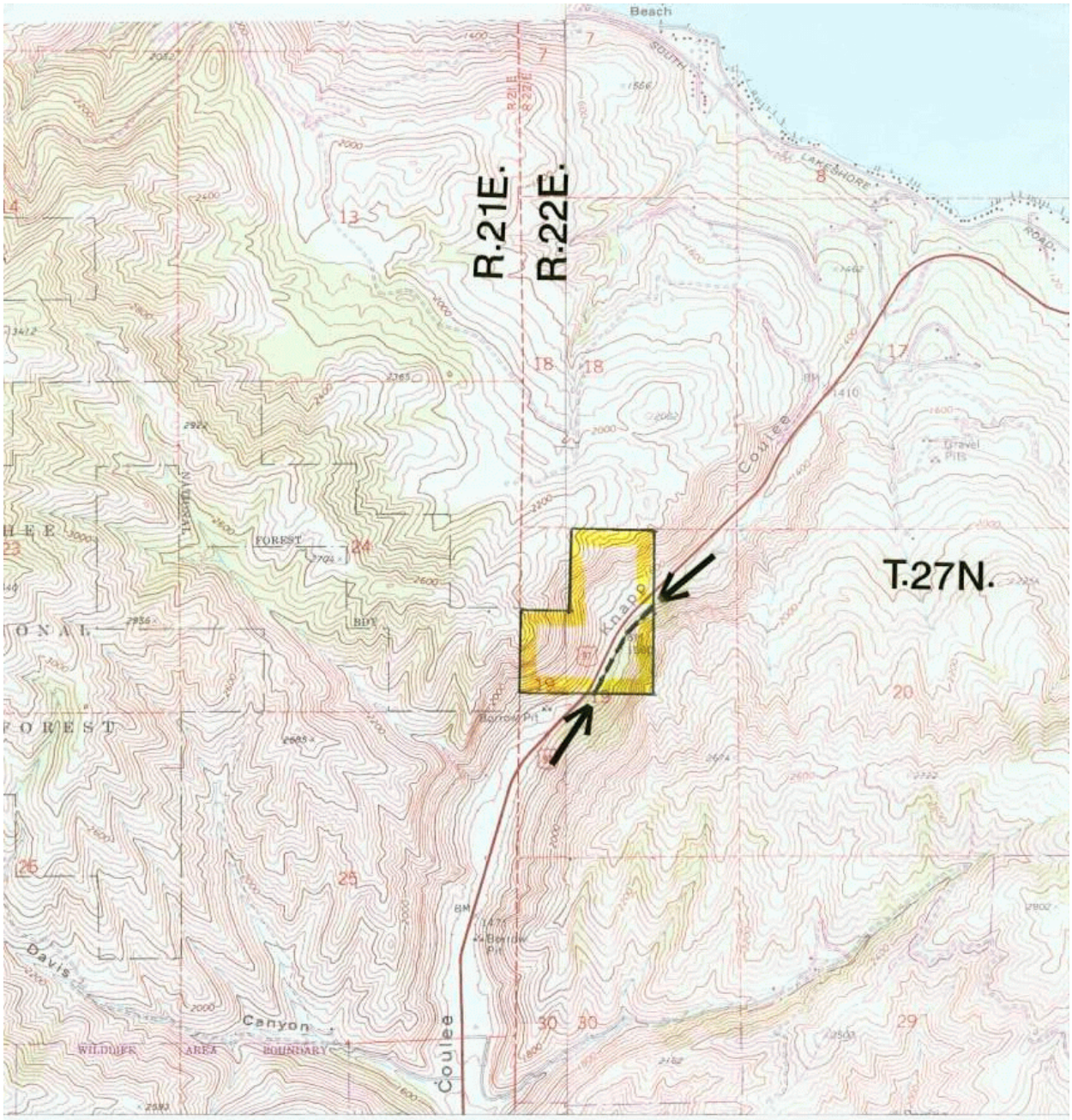
B. Alternatives

If the No Action Alternative is pursued, there would be no impacts to the subject public land, since the existing situation would continue. However, if the PUD is unable to construct the powerline along its preferred route, it would need to select one of the alternate routes. All alternative routes involve increased length, steeper slopes and more difficult access, which would translate into more disturbance to the environment and increased cost. Increases in surface disturbance would mean a higher level of environmental impacts, and the higher construction and maintenance costs would lead to an economic impact, since these costs would be passed on to the end users.

V. LIST OF PREPARERS AND STAFF MEMBERS CONSULTED

Bill Schurger, Wenatchee Field Office Realty Specialist
Rich Bailey - Spokane District Archaeologist
Pamela Camp - Spokane District Botanist, Wenatchee
Neal Hedges - Wenatchee Field Office Wildlife Biologist
Kathleen Helm - Spokane District Planner and Environmental Coordinator
Bob Troiano - Spokane District Weed Coordinator
Jim Fisher - Wenatchee Field Office Manager
Kevin James - Botanist, Wenatchee Field Office

A P P E N D I X



1:24,000 SCALE TOPOGRAPHIC MAP