

PUBLIC UTILITY DISTRICT NO. 1 *of* CHELAN COUNTY

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January 22, 2010

VIA ELECTRONIC FILING

Honorable Kimberly D. Bose, Secretary
Nathaniel J. Davis, Sr., Deputy Secretary
FEDERAL ENERGY REGULATORY COMMISSION
888 First Street, NE
Washington, DC 20426

Subject: Rocky Reach Hydroelectric Project, FERC No. 2145
Article 403 – Wildlife Habitat Management Plan dated December 31, 2009

Dear Secretary Bose and Deputy Secretary Davis:

The Federal Energy Regulatory Commission (Commission) issued the “Order on Offer of Settlement and Issuing New License” (License) for the Rocky Reach Hydroelectric Project No. 2145 (Project) on February 19, 2009. In accordance with License Article 403, the Public Utility District No. 1 of Chelan County (Chelan PUD) is required to file a Wildlife Habitat Management Plan within one year of the issuance date of the license with the Commission.

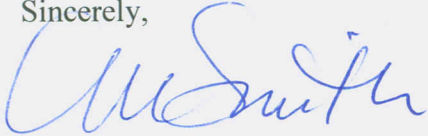
Chelan PUD hereby files the plan describing in detail the wildlife habitat improvement projects that will be implemented over the first five years of the license. Priority was given to habitat improvement projects within the project boundary and immediately adjacent to the project because these are the resources most directly affected by the project. The measures outside the project boundary do not require annual or regular maintenance and oversight to ensure their success; therefore, no lands will be brought into the project boundary.

The plan was prepared after consultation with U.S. Fish and Wildlife Service, Bureau of Land Management, the U.S. Forest Service, Washington Department of Natural Resources, Washington Recreation and Conservation Office, the Washington Department of Fish and Wildlife and the Rocky Reach Wildlife Forum.

*Ms. Kimberly D. Bose and Mr. Nathaniel J. Davis, Sr.
Federal Energy Regulatory Commission*

If you have any questions or require additional information, please contact Von Pope at (509) 661-4625 or me.

Sincerely,



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Enclosures: Final Wildlife Habitat Management Plan dated December 31, 2009

cc: Erich Gaedeke
Portland Regional Office
Federal Energy Regulatory Commission
805 SW Broadway, Suite 550
Portland, OR 97205

ROCKY REACH WILDLIFE HABITAT MANAGEMENT PLAN

FINAL

**ROCKY REACH HYDROELECTRIC PROJECT
FERC Project No. 2145**

December 31, 2009



Prepared by
**Public Utility District No. 1 of Chelan County
Wenatchee, Washington**

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EXECUTIVE SUMMARY

The Federal Energy Regulatory Commission (Commission) Order on Offer of Settlement and Issuing New License (License) for the Rocky Reach Hydroelectric Project No. 2145 (Project) was issued February 19, 2009 to the Public Utility District No. 1 of Chelan County (Chelan PUD). Article 403 of the new Project License requires Chelan PUD to file for Commission approval a five-year Wildlife Habitat Management Plan (WHMP). The plan is to be updated every five years thereafter.

Development of this five-year Rocky Reach WHMP was conducted in consultation with the US Fish and Wildlife Service, US Bureau of Land Management, US Forest Service, Washington State Department of Fish and Wildlife, Washington Department of Natural Resources, Washington Recreation and Conservation Office, and the Rocky Reach Wildlife Forum. Additionally, attention was given to ensure the plan was coordinated and consistent with the Rocky Reach Recreation Resources Management Plan.

The primary goal of the Rocky Reach WHMP is to protect and enhance wildlife habitats within and immediately adjacent to the project reservoir. Habitat improvement projects that will be implemented within the first five years are:

1. Habitat improvement projects that occur on lands within an approximate 6-mile-wide corridor of the Rocky Reach reservoir, which include:
 - Projects¹ to restore and improve habitat on the Chelan Wildlife Area managed by WDFW;
 - Projects¹ for habitat restoration on US Bureau of Land Management (BLM) lands;
 - Projects¹ for habitat restoration on USDA Forest Service lands;
2. Secure a conservation easement to protect riparian habitats on Sun Cove property owned by Chelan PUD;
3. Implementation of an integrated noxious weed control program; and
4. Annual wildlife surveys.

¹ Projects proposed do not require maintenance or monitoring to ensure success, rather, all projects are one-time treatments, or progressions of one time treatments. Therefore, none of these lands need be incorporated into the Rocky Reach Project boundary.

SECTION 1: INTRODUCTION

The Federal Energy Regulatory Commission (Commission) Order on Offer of Settlement and Issuing New License (License) for the Rocky Reach Hydroelectric Project No. 2145 (Project) was issued February 19, 2009 to the Public Utility District No. 1 of Chelan County (Chelan PUD). Article 403 of the new Project License requires Chelan PUD to file for Commission approval a five-year Wildlife Habitat Management Plan (WHMP). The plan is to be updated every five years thereafter.

The WHMP describes measures to be implemented by Chelan PUD over the next five years to address requirements under Article 403 to protect and enhance wildlife habitats within the Rocky Reach Project boundary and in a corridor within the Rocky Reach Wildlife Area (RRWA). The RRWA is defined as state and public lands in Chelan and Douglas counties within an approximate 6-mile corridor of the Rocky Reach Reservoir.

Federal public lands in the RRWA include those of the US Forest Service (USFS), Bureau of Land Management (BLM), and US Fish and Wildlife Service (USFWS). State lands owned adjacent to the project include those owned and maintained by the Washington Department of Fish and Wildlife (WDFW) and Washington Department of Natural Resources (WDNR). WDFW owns and operates the Chelan Wildlife Area (approximately 30,221 acres, WDFW 2006) which is comprised of the Swakane (11,273 acres), Entiat (9,851 acres), and Chelan Butte (9,097 acres) Wildlife Units.

Development of this five-year Rocky Reach WHMP was conducted in consultation with the USFWS, BLM, USFS, WDFW, WDNR, Washington Recreation and Conservation Office, and the Rocky Reach Wildlife Forum (RRWF²). Documentation of the consultation that occurred during development and completion of this plan is attached as Appendix A.

As required by Article 403, the WHMP includes (1) a detailed description of the habitat improvement measures, including the methods to be used, (2) a detailed description of the location where the improvements will occur, including maps and drawings, (3) a description of any annual or periodic maintenance and monitoring needed to ensure the success of the measures, and (4) a detailed implementation schedule.

As prescribed, this WHMP will cover a five year period. Due to the dynamic nature of the RRWA environment (e.g., wildfires, development, or unforeseen circumstances) a variety of land management practices will be proposed that may or may not be implemented in the first 5 years. While the objective will be to adhere to the plan, modification may be made in accordance with the RRWF as environmental conditions change. These modifications will be documented in the 5-year status report and updated as required by the Commission.

² The RRWF includes Chelan PUD, the U.S. National Park Service (NPS), USFWS, BLM, WDFW, the Confederated Tribes of the Colville Reservation (CCT), the Yakama Nation (YN), Alcoa Power Generating, Inc., the City of Entiat, the Washington State Department of Ecology (Ecology), and the Washington State Parks and Recreation Commission.

SECTION 2: BACKGROUND

Before European settlement, the vegetation of the area surrounding the Project was largely shrub-steppe, which was maintained by frequent wildfires. A number of factors have altered the historic vegetation in the vicinity of the Project. Before the Project was constructed in 1961, the area had already been altered to some extent by grazing, fires and fire suppression, farming, residential development and exotic weed invasion. These factors continue to affect current conditions.

Existing botanical resources closely resemble the historical botanical resources in the vicinity of the Project, consisting mainly of shrub-steppe communities. Subsequent to inundation by the reservoir, new riparian and aquatic plant communities have developed on the present day shoreline. There are also some areas of riparian vegetation along streams or rivers and some wetland communities within the Project Boundary. In addition, there are some habitats with distinct vegetation communities; these include areas with gravelly or sandy soils, shallow and/or stony sites; and sand dunes near the Columbia River (Franklin and Dyrness, 1973).

Much of the area surrounding the Project has been developed or cultivated with a variety of crops or is grazed by livestock. Irrigated cropland and orchards dominate the river corridor lands around the Project reservoir.

In the mid-1960s, as part of the original license, Chelan PUD provided funds to the Washington Department of Game (now the WDFW) for the purchase of 20,397 acres of land along the Columbia River between Swakane Canyon and Chelan Butte, collectively referred to as the Chelan Wildlife Area (CWA). These lands were purchased to mitigate the loss of the wildlife habitat that was inundated by original Project construction. These lands are important mule deer winter range within Chelan County. In addition to WDFW lands, the CWA is intermingled with lands administered by the BLM, US Forest Service, and DNR, along with some private land in-holdings (Figure 1). These lands provide additional benefit to wildlife resources.

Mule deer (*Odocoileus virginianus*), bighorn sheep (*Ovis canadensis*), cougar (*Felis concolor*), bobcat (*Lynx rufus*), and coyotes (*Canis latrans*) inhabit range in the mid-Columbia region. These species are present near the Rocky Reach reservoir, and have been recorded occasionally within the Project boundary. Upland game birds that use the Rocky Reach reservoir shorelines and Rocky Reach Wildlife Area lands include ring-necked pheasants (*Phasianus colchicus*), California quail (*Lagopus californicus*), chukars (*Alectoris chukar*), and mourning doves (*Zenaidura macroura*).

Most of the state and federal lands proposed for habitat implementation measures in this plan are located outside the Rocky Reach Project boundary. Since wildlife resources cross multiple land management boundaries, the WHMP includes implementation of one-time treatments by Chelan PUD on specific portions of state and federal lands to assist these agencies in improving wildlife habitat to benefit wildlife resources on lands adjacent to the Rocky Reach Project area.

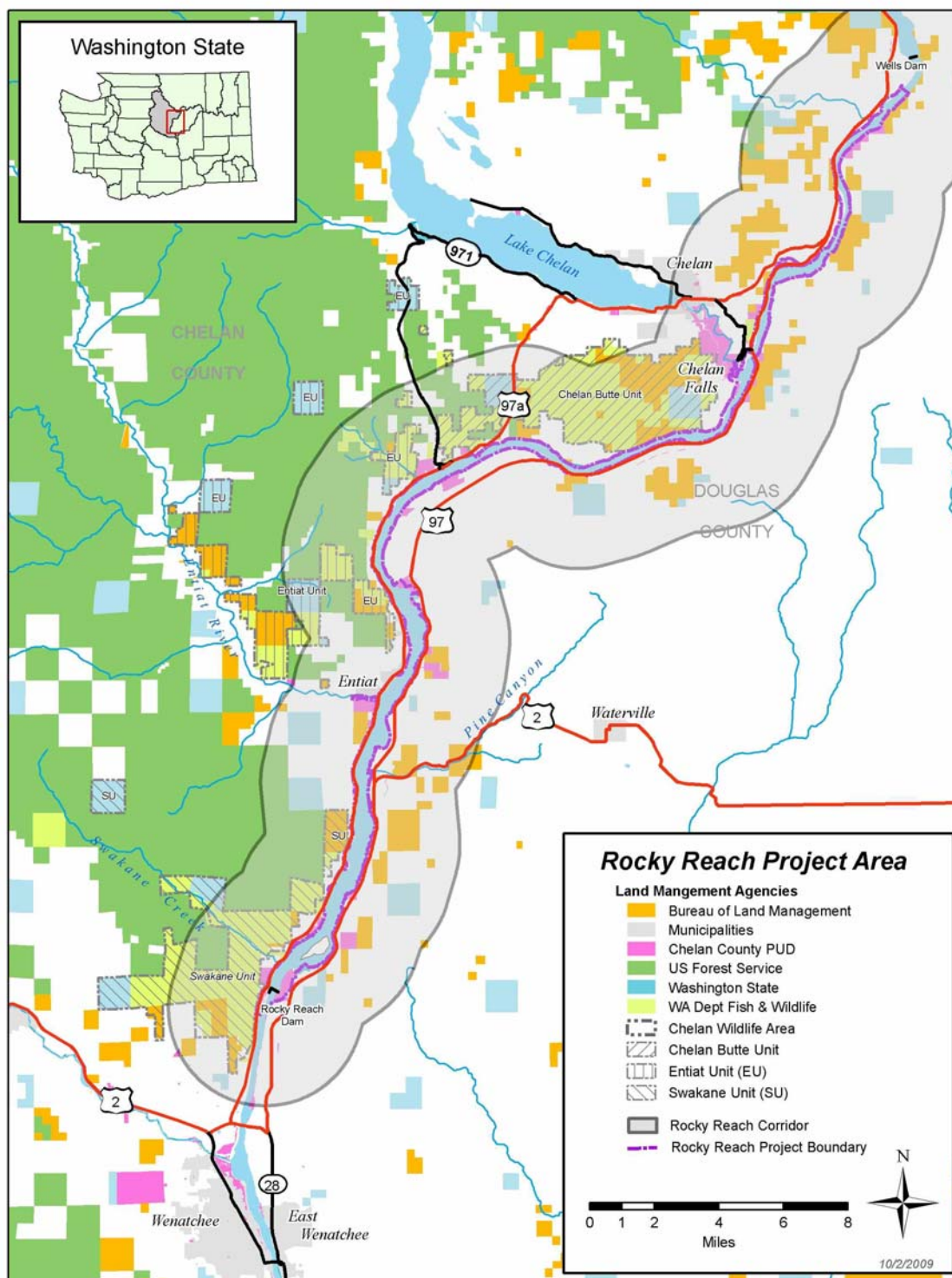


Figure 1: Rocky Reach Project Area

SECTION 3: STUDIES AND EVALUATION OF PROJECT EFFECTS

Under the direction of the Natural Sciences Working Group (NRWG), numerous studies were conducted during the Rocky Reach relicensing process, including the Rare Plant Survey of the Rocky Reach Reservoir (Calypso Consulting, 2000), Rare, Threatened, and Endangered Wildlife and Cover-Type Mapping Study (DES, 2000), historic and ongoing Chelan PUD monitoring studies, and the Mule Deer Mortality Study (Myers, 2003).

3.1 Relicensing Studies

3.1.1 RTE Wildlife and Cover-type Mapping

The Rare, Threatened, and Endangered Wildlife and Cover Type Mapping report assessed 13 cover types in the vicinity of the Project (DES, 2000). The study determined that approximately 57 percent of lands near the Project are comprised of disturbed, developed, or modified cover-types. Of all cover-types within the study area, orchards occupy the largest area (25.2 percent), shrub-steppe is the second largest (22.3 percent), and residential/industrial is the third largest area (15.6 percent). The residential/industrial cover-type increased more than any cover-type from 1991 to 1999 (approximately 230 acres), followed by the recreational cover-type (increase of approximately 59 acres). Residential and industrial development results in the conversion and permanent loss of native wildlife habitats. Collectively riparian and shoreline wetland habitats constitute a small portion of all habitats in the area (9.2 percent).

The primary conclusion of the report was that “suitability of wildlife habitats within the Rocky Reach study area are influenced by current human activities, past land-use practices, and physical landform characteristics.” One significant habitat feature identified by this study and the Rare Plant Survey (Calypso Consulting, 2000) was the dramatic increase in riparian vegetation within the Project boundary, and the associated increase in wildlife species diversity.

3.1.2 Botanical Resources Survey

During a rare plant survey in 1999–2000 (Calypso Consulting, 2000), botanists located 14 populations of six rare plant species within the Project boundary, including four currently state-listed species: porcupine sedge (*Carex hystericina*), giant helleborine (*Epipactis gigantea*), adder’s-tongue (*Ophioglossum pusillum*) and Ute ladies’-tresses (*Spiranthes diluvialis*). One of these, the Ute ladies’-tresses, is also federally listed as a threatened species. Due to their rarity in the state, two other species that were located during the course of surveys can be expected to be added to the Washington National Heritage Program list and tracked in the future. These species are little bluestem (*Schizachyrium scoparium*) and blue-eyed grass (*Sisyrinchium montanum*).

Noxious weeds such as purple loosestrife (*Lythrum salicaria*), diffuse knapweed (*Centaurea diffusa*), Russian knapweed (*Acroptilon repens*), perennial pepperweed (*Lepidium latifolium*), Dalmatian toadflax (*Linaria dalmatica*), Yellow Starthistle (*Centaurea solstitialis*), Common mullein (*Verbascum thapsus*), Camelthorn (*Alhagi maurorum*), Canada thistle (*Cirsium arvense*), common St. John’s-wort (*Hypericum perforatum*), and hoarycress (whiteweed) (*Cardaria draba*) pose a particular risk to native and rare plant populations in the vicinity of the Project. Other weeds such as Japanese knotweed (*Polygonum cuspidatum*), yellow flag (*Iris pseudacorus*) and reed canary-grass (*Phalaris arundinacea*) may also be problematic.

Besides direct destruction of habitat, increases in weedy plant species probably poses the highest threat to rare plant populations and native plant communities (Calypso Consulting, 2000). The higher the level of disturbance within a habitat, the greater the probability that non-native weedy plant species will become established and potentially out-compete native and rare plant species.

Similar to noxious weed invasion, populations of giant helleborine (*Epipactis gigantea*) and porcupine sedge (*Carex hystericina*) have increased dramatically since 1990 (Calypso Consulting, 1990, 2000). The increase in populations of these species indicates that current Project operations result in maintaining riparian vegetation through providing a stable reservoir elevation and by reducing flood scour.

3.1.3 Mule Deer Overwinter Mortality Study

This study, conducted by WDFW, was designed to provide baseline information concerning the most effective and efficient use of funds to enhance mule deer habitats (Myers 2003). Chelan PUD provided partial funding for this project, with an objective to determine the habitat quality on the existing wildlife lands in the Swakane, Entiat, and Chelan Butte units.

Bitterbrush (*Purshia tridentata*), the preferred winter forage species by mule deer when present, was reduced dramatically during the 1988 and 1994 fires. The loss of this important winter forage species very likely had severe impacts to deer numbers, since the quality of digestible winter forage affects survival. The logical step for enhancing mule deer winter ranges in Chelan County would start with restoring bitterbrush stands to a level that could help the mule deer population recover from a combination of severe winters and wildfires. Determining areas with consistent mule deer use will focus restoration of bitterbrush stands to areas important for mule deer. Given these considerations, the goal of this study was to provide deer managers in Chelan County with information on winter habitat use by mule deer so that those areas can be enhanced.

As determined by this study, the primary causal agent to mule deer population decline is loss of winter habitat due to fire. The information gathered regarding habitat quality on existing wildlife areas will be valuable in determining where habitat enhancement efforts will likely be the most successful in terms of benefiting mule deer, and other wildlife species associated with mule deer habitat.

3.2 Ongoing Studies

3.2.1 Canada Goose Nesting Surveys

Canada goose surveys have been conducted by Chelan PUD on the Reservoir since 1983 (Fielder 2003). These surveys have been used by WDFW to assess Canada goose abundance and set harvest regulations. The Reservoir provides limited habitat for breeding waterfowl. Canada geese (*Branta canadensis*), mallards (*Anas platyrhynchos*) and common mergansers (*Mergus merganser*) are probably the most common breeding waterfowl, although wood ducks (*Aix sponsa*) occasionally use the nesting boxes dotted along the Reservoir. Backwater areas probably also support a few nesting pairs of pied-billed grebes (*Podilymbus podiceps*) and coots (*Fulica atra*).

Since 1983, annual surveys have documented 30 to 80 nesting pairs of Canada geese within the Project. Currently, Chelan PUD maintains 20 artificial nest structures for geese along the Reservoir. Each year about two-thirds of these nest attempts are successful and produce approximately 200 goslings.

3.2.2 Bald Eagle Overwinter Abundance Surveys

Bald eagle (*Haliaeetus leucocephalus*) overwinter abundance surveys have been conducted by Chelan PUD on the Reservoir since 1982. Chelan PUD estimates that between 20 and 56 bald eagles overwinter along the Reservoir, feeding on the abundant overwintering waterfowl and deer carrion (Fielder, 1982). In 2007, following the delisting of the bald eagle, Chelan PUD began doing monthly surveys rather than bi-weekly surveys to document bald eagle winter abundance.

3.2.3 Bald Eagle Nesting Surveys

During the relicensing studies, no active bald eagle nests were documented within the RRWA. In 2005, the first occurrence of nesting bald eagles was observed in the RRWA near Howard Flats. During other wildlife monitoring activities, Chelan PUD has observed and monitored all nesting attempts by bald eagles in the vicinity of the Project. On August 8, 2007, the bald eagle was delisted by the USFWS. By 2009, five bald eagle nesting territories have been documented within the RRWA.

SECTION 4: WILDLIFE HABITAT IMPROVEMENTS

The following habitat improvement projects will be implemented by Chelan PUD over the next five years to protect and enhance wildlife habitats within an approximately 6-mile-wide corridor of the Rocky Reach reservoir that defines the Rocky Reach Wildlife Area (RRWA). The habitat improvement projects will be located within the following federal and state management areas:

- WDFW Lands (Chelan Butte, Swakane, and Entiat Units) - Figures 2, 3, 4
- BLM Lands (Chelan Butte, Swakane, and Azwell areas) - Figures 5, 6, 7
- US Forest Service Lands (Swakane) - Figure 8

All of the proposed projects are within or very near the 6-mile corridor of the RRWA (Figure 1). Chelan PUD is proposing one-time treatments to assist federal and state managing agencies in restoring and improving wildlife habitat to benefit wildlife resources³.

4.1 Habitat Improvements on WDFW Lands

WDFW manages approximately 30,000 acres of land within the Chelan Wildlife Area that includes the Chelan Butte, Swakane, and Entiat Wildlife Units located within the RRWA. Chelan PUD will assist WDFW with their goal to convert approximately 1,400 acres of abandoned agricultural fields within the Chelan Butte and Swakane Wildlife Units to self-sustaining shrub-steppe habitat³, which should benefit big game present in the area, as well as a variety of other wildlife species dependant on shrub-steppe habitat. Former agricultural fields proposed for restoration are shown as Chelan Butte and Swakane Unit fields in Figures 2 and 3. Fields may be grouped for logistical purposes and restoration will occur in several phases. Implementation for each group of fields will consist of a progression of measures, with approximately 200 acres initiated each year.

- 1) Treatments for field restoration include chemical and mechanical weed control efforts, soil prep, seeding, and shrub planting over a five to six year period for each group of fields. The restoration of each group of fields may require a series of activities over several years. The estimated cost is approximately \$1,100/acre for restoration of approximately 1,400 acres. WDFW and Chelan PUD estimate approximately 15-20 years to convert all of the abandoned fields to self-sustaining shrub steppe.
- 2) In addition to field restoration, Chelan PUD will assist WDFW with other wildlife habitat improvement measures within the CWA. Detailed descriptions of the projects to be implemented by Chelan PUD are shown in Table 1³.

³Projects proposed do not require maintenance or monitoring to ensure success, rather, all projects are one-time treatments, or a series of activities (see Table 1). Therefore, none of these lands need be incorporated into the Rocky Reach Project boundary.

Table 1: Projects to Benefit Wildlife Resources on the Chelan Wildlife Area (Swakane, Entiat, and Chelan Butte Units)

Year	Project	Wildlife Unit(s)	Activity	Purpose
1	Field Restoration	Swakane/Chelan Butte	Field prep –group 1	Mechanical and/or chemical weed management
1	Wildlife Watering Basins (6)	Swakane	Install 6 water basins	Water source for wildlife
1	Develop pond - Burch Mountain	Swakane	Create pond at spring	Water source for wildlife
1	Irrigation hand lines & fittings	Swakane	Purchase materials	Irrigate existing wildlife food plots and native shrub and tree plantings
1	Kestrel and Bluebird nest boxes	Swakane	Build and install 20 nest boxes	Increase bluebird and kestrel nesting habitat.
1	Spring development	Chelan Butte	Develop a spring	Water source for wildlife
1	Install feeders	Swakane	Install 2 feeders	Winter food source for wildlife
1	Native seed collection	All	Collect seeds from native shrubs and trees	Seeds to be propagated in restoration activities
1	Shrub and tree propagation	Swakane/Chelan Butte	Propagate native shrubs and trees	Plants to be used in restoration efforts
2	Field Restoration	Swakane/Chelan Butte	Field prep – group 2	Mechanical and/or chemical weed management
2	Field Restoration	Swakane/Chelan Butte	Weed management - group 1	Mechanical and/or chemical weed management, fallow parcel(s)
2	Construct a pond	Swakane	Create a pond	Water source for wildlife
2	Shrub/tree plantings	Swakane	Establish 1 acre of riparian habitat	Increase wildlife cover
2	Install 3 feeders	Chelan Butte	Install 3 feeders	Winter food source for wildlife
2	Install 1 guzzlers	Swakane	Install 1 guzzler	Water source for wildlife
2	Kestrel and Bluebird nest boxes	Chelan Butte	Build and install 20 nest boxes	Increase bluebird and kestrel nesting habitat.
2	Native seed collection	All	Collect seeds from native shrubs and trees	Seeds to be propagated in restoration activities
2	Shrub and tree propagation	Swakane/Chelan Butte	Propagate native shrubs and trees	Plants to be used in restoration efforts
2	Forest thinning - Burch Mountain	Swakane	Thin forested areas	Open understory reduce fire impacts
3	Field Restoration	Swakane/Chelan Butte	Field prep - group 3	Mechanical and/or chemical weed management
3	Field Restoration	Swakane/Chelan Butte	Weed management - group 2	Mechanical and/or chemical weed management, fallow parcel(s)
3	Field Restoration	Swakane/Chelan Butte	Seeding -group 1	Initial planting with grasses and forbs
3	Install watering basin	Entiat - OK gulch	Develop spring	Water source for wildlife

3	Install feeders	Swakane	Install 3 feeders	Winter food source for wildlife
3	Install guzzler	Chelan Butte	Install 1 guzzler	Water source for wildlife
3	Shrub and tree propagation	Swakane/Chelan Butte	Propagate native shrubs and trees	Plants to be used in restoration efforts
4	Field Restoration	Swakane/Chelan Butte	Field prep - group 4	Mechanical and/or chemical weed management
4	Field Restoration	Swakane/Chelan Butte	Weed management - group 3	Mechanical and/or chemical weed management, fallow parcel(s)
4	Field Restoration	Swakane/Chelan Butte	Seeding - group2	Initial seeding with grasses and forbs
4	Field Restoration	Swakane/Chelan Butte	Tree and shrub planting – Group 1	Initial tree and shrub plantings
4	Shrub/tree plantings	Swakane/Chelan Butte	Create additional acre of woody habitat	Increase wildlife cover
4	Develop watering basins	Entiat - Roundy	Develop spring	Water source for wildlife
4	Install feeders	Chelan Butte	Install 3 feeders	Winter food source for wildlife
4	Shrub and tree propagation	Swakane/Chelan Butte	Propagate native shrubs and trees	Plants to be used in restoration efforts
5	Field Restoration	Swakane/Chelan Butte	Field prep group 5	Mechanical and/or chemical weed management
5	Field Restoration	Swakane/Chelan Butte	Weed management - group 4	Mechanical and/or chemical weed management, fallow parcel(s)
5	Field Restoration	Swakane/Chelan Butte	Seeding – group3	Initial seeding with grasses and forbs
5	Field Restoration	Swakane/Chelan Butte	Tree and shrub planting – group 2	Initial tree and shrub plantings
5	Field Restoration	Swakane/Chelan Butte	Weed management/ planting group 1	Completes one time restoration process for group 1 fields.
5	Shrub/tree plantings	Swakane	Create additional acre of woody habitat	Increase wildlife cover
5	Shrub and tree propagation	Swakane/Chelan Butte	Propagate native shrubs and trees	Plants to be used in restoration efforts
5	Install guzzlers	Chelan Butte	Install 2 guzzlers	Water source for wildlife

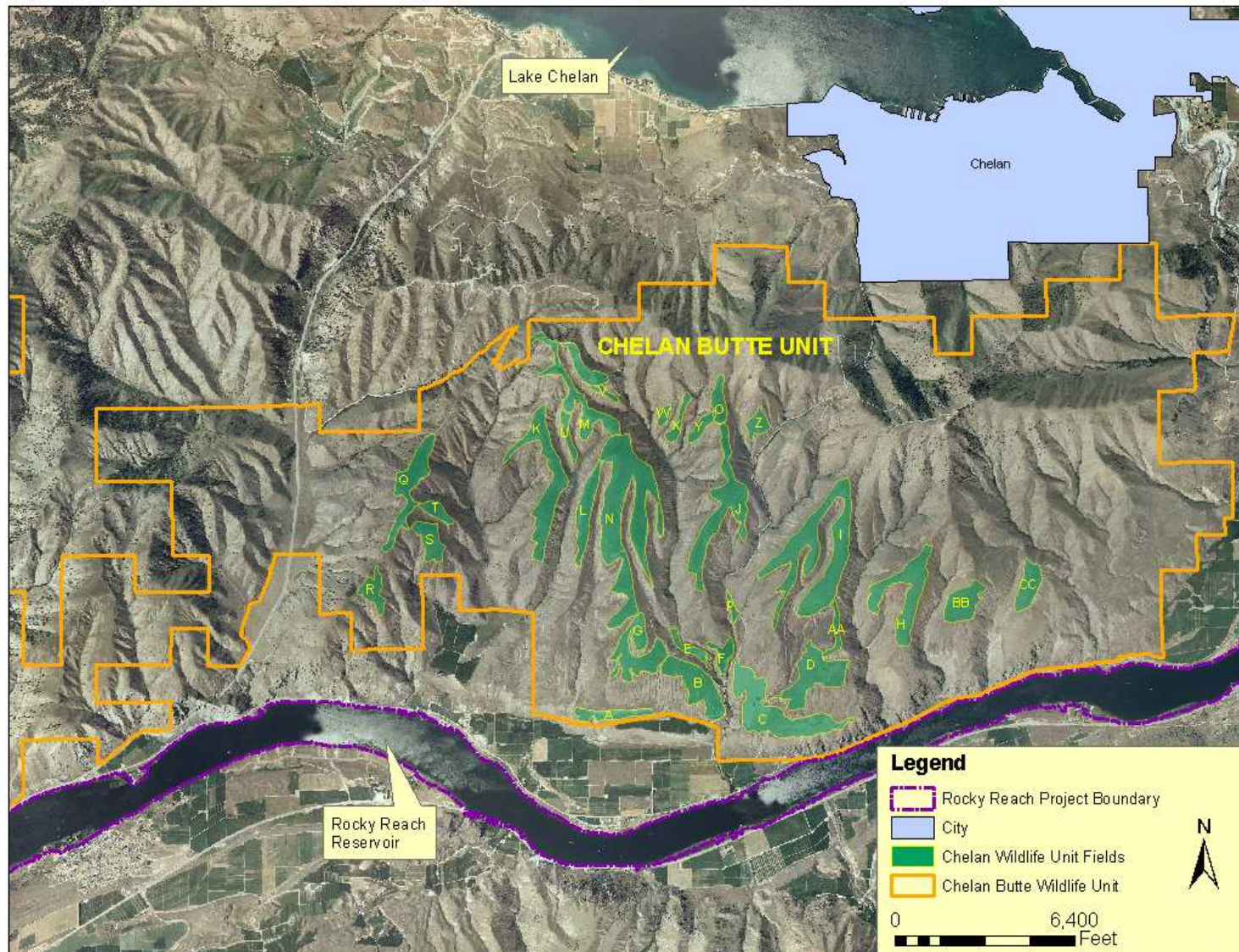


Figure 2: Chelan Butte Wildlife Unit, WDFW.

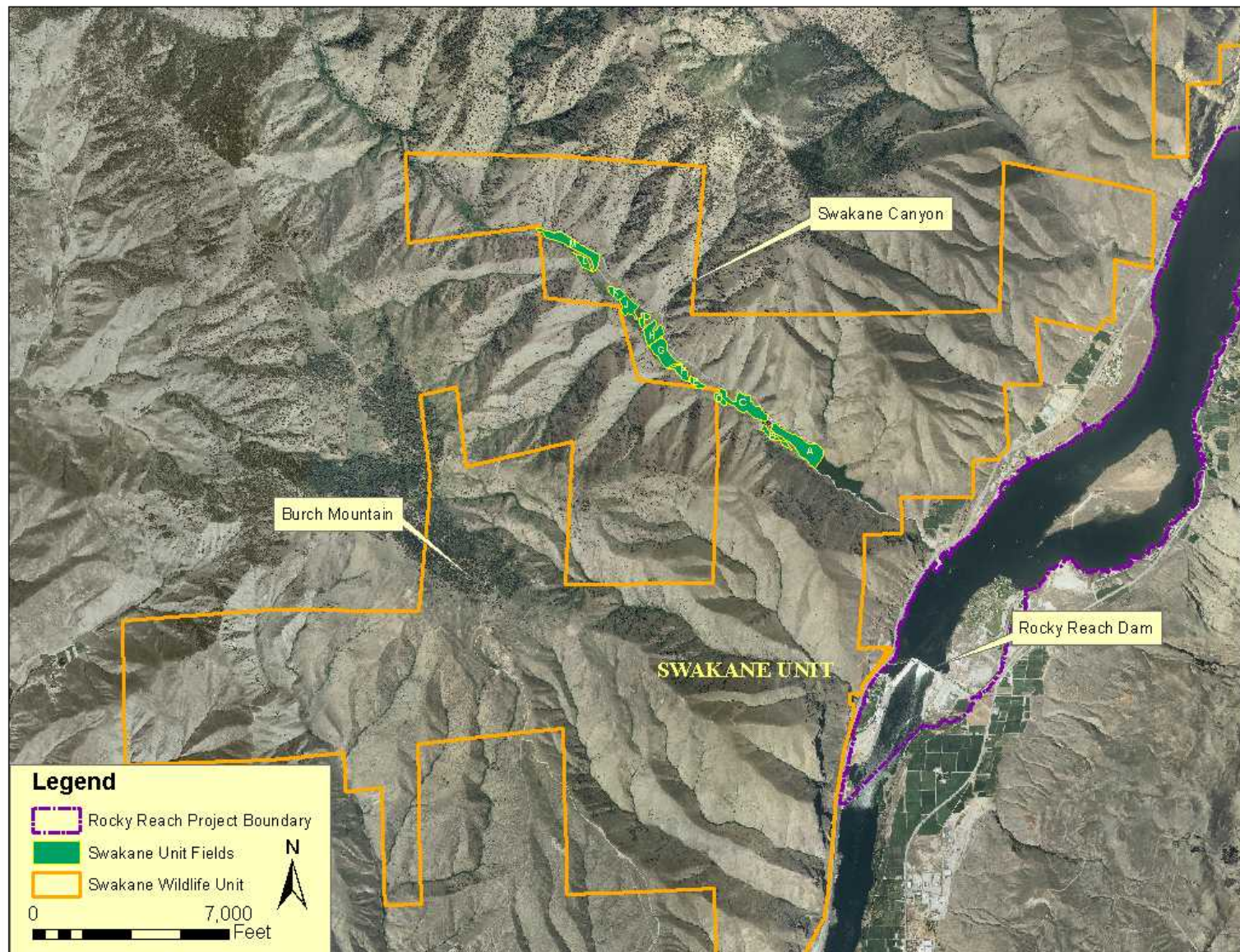


Figure 3: Swakane Wildlife Unit, WDFW.

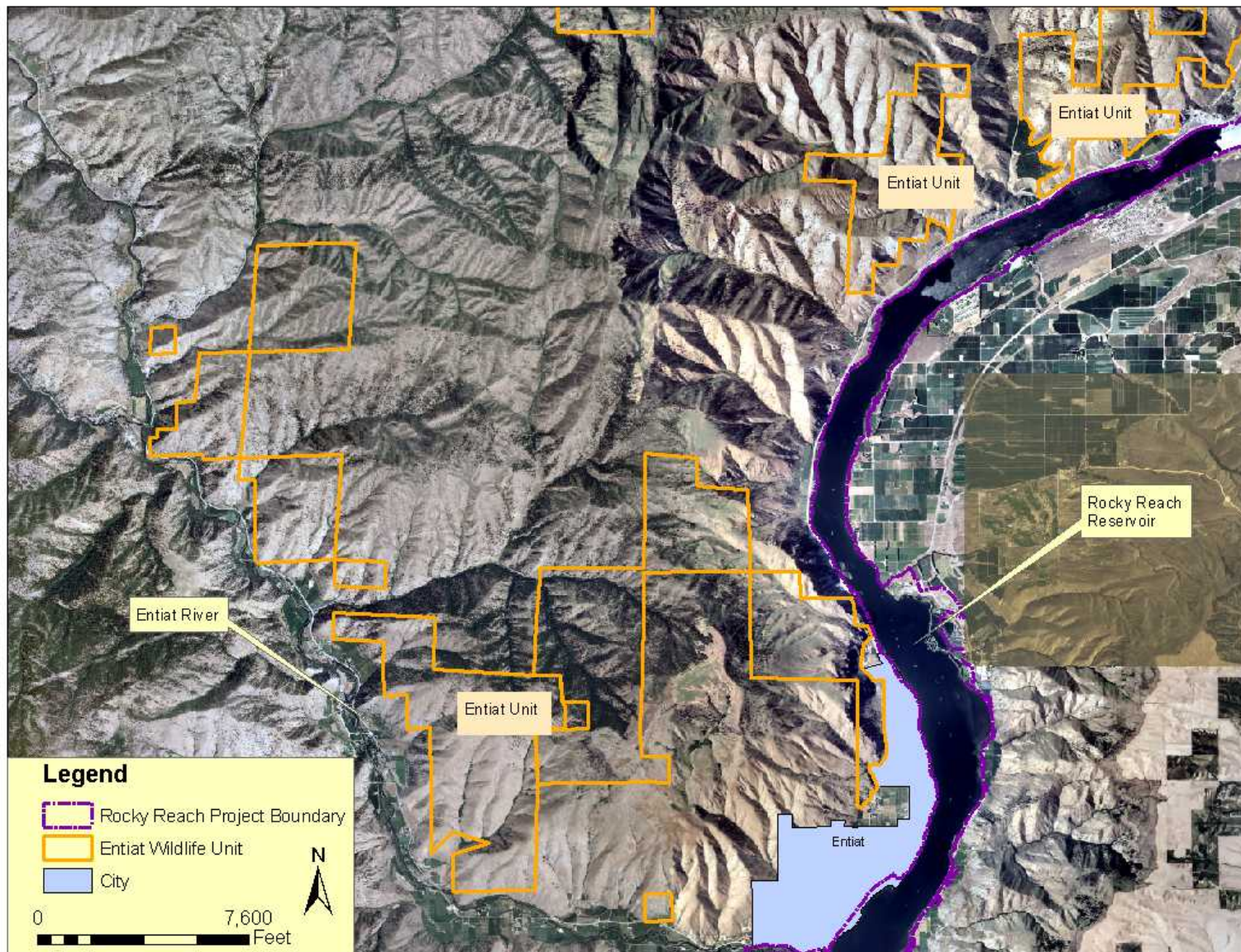


Figure 4: Entiat Wildlife Unit, WDFW.

4.2 Habitat Restoration on BLM Lands

The Bureau of Land Management (BLM) is responsible for approximately 12,000 acres within 6 miles of the Columbia River in Chelan County upstream from the Wenatchee River confluence. These lands are relatively low elevation ranging from 750 – 3200 feet. Shrub-steppe habitat with an over-story of sagebrush or bitterbrush and an under-story of various grasses and forbs are most common on these lands. Some mesic sites, which are often found at higher elevation or on north exposures, support conifers. Riparian areas support a mixture of deciduous shrubs and trees as well as conifers. Much of the area has burned during the past 15 years. In most cases, these recently burned areas support fewer trees and shrubs and more grasses and forbs. About half of the BLM lands in this area are considered part of the Swakane, Entiat or Chelan Butte Wildlife Units which comprise the CWA (Chelan Wildlife Area).

For this plan, the BLM lands were divided into 3 Areas: Azwell (Figure 5), from the Okanogan County line south to Chelan; Chelan Butte (Figure 6), from Chelan to Entiat; and Swakane (Figure 7) from Entiat south to the Wenatchee River. Detailed descriptions of the projects to be implemented by Chelan PUD are shown in Table 2 below⁴.

- 1) **Azwell** approximately 4,500 acres
 - Planting containerized bitterbrush and blue elderberry in 5 units totaling 473 acres.
 - Develop a spring to provide water for mule deer and bighorn sheep south of Deer Mountain in Section 8.
 - Control noxious weeds
- 2) **Chelan Butte** approximately 3,380 acres (within Chelan Butte and Entiat Wildlife Units)
 - Restoring native shrub-steppe plant communities on 25 acres of agricultural land on Chelan Butte (to be coordinated with WDFW field restoration).
 - Control noxious weeds
 - Potentially planting bitterbrush and other native browse species on 244 acres. These plantings are not proposed to occur during the first 5 years.
- 3) **Swakane** approximately 5,772 acres (within the Entiat and Swakane Wildlife Units)
 - Developing a spring near Tenas George Canyon and Swakane Creek to provide water for mule deer and bighorn sheep.
 - Controlling noxious weeds

⁴Projects proposed do not require maintenance or monitoring to ensure success, rather, all projects are one-time treatments, or a series of activities (see Table 2). Therefore, none of these lands need be incorporated into the Rocky Reach Project boundary.

Table 2: Implementation Schedule for Proposed BLM Projects within the RRWA (Swakane, Azwell, and Chelan Butte Areas).

Year	Project	AreaUnit	Activity	Purpose
1	Weed management	All	Weed management on 100 acres	Improve habitat quality
1	Field restoration	Chelan Butte	Consistent with WDFW restoration on CWA	Restore abandoned fields
1	Develop a spring	Swakane-2	Develop a spring	Water source for wildlife
1	Shrub planting	Azwell 1-2	Bitterbrush and elderberry/planting	Increase available browse
2	Weed management	All	Weed management on 100 acres	Improve habitat quality
2	Field restoration	Chelan Butte	Consistent with WDFW restoration on CWA	Restore abandoned fields
2	Develop a spring	Azwell - 3	Develop a spring	Water source for wildlife
2	Shrub planting	Azwell 3	Bitterbrush and elderberry/planting	Increase available browse
3	Weed management	All	Weed management on 100 acres	Improve habitat quality
3	Field restoration	Chelan Butte	Consistent with WDFW restoration on CWA	Restore abandoned fields
3	Shrub planting	Azwell - 3	Bitterbrush and elderberry/planting	Increase available browse
4	Weed management	All	Weed management on 100 acres	Improve habitat quality
4	Field restoration	Chelan Butte	Consistent with WDFW restoration on CWA	Restore abandoned fields
4	Shrub planting	Azwell - 4	Bitterbrush and elderberry/planting	Increase available browse
5	Weed management	All	Weed management on 100 acres	Improve habitat quality
5	Shrub planting	Azwell - 5	Bitterbrush and elderberry/planting	Increase available browse
5	Field restoration	Chelan Butte	Consistent with WDFW restoration on CWA	Restore abandoned fields

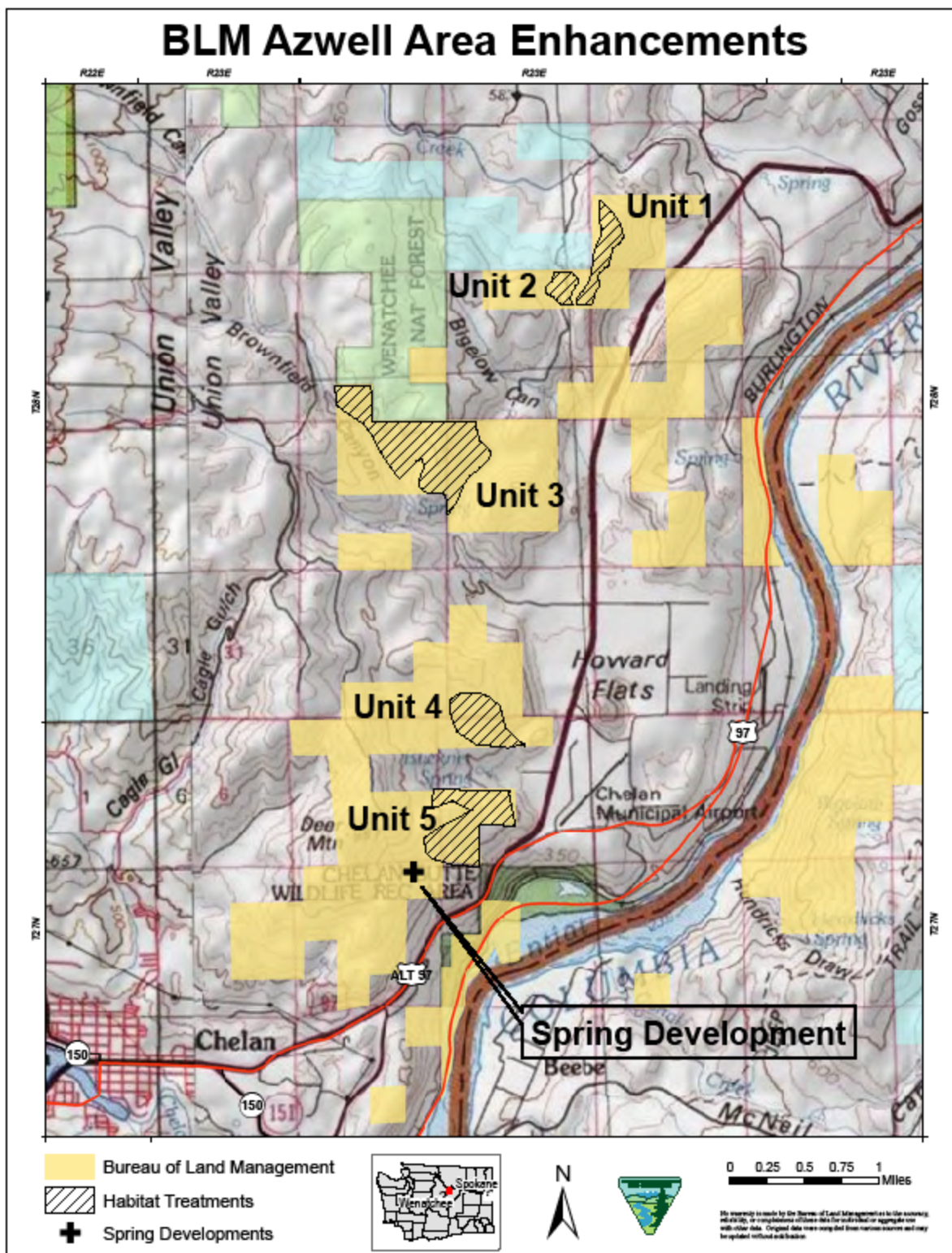


Figure 5: Azwell Area Habitat Projects, BLM.

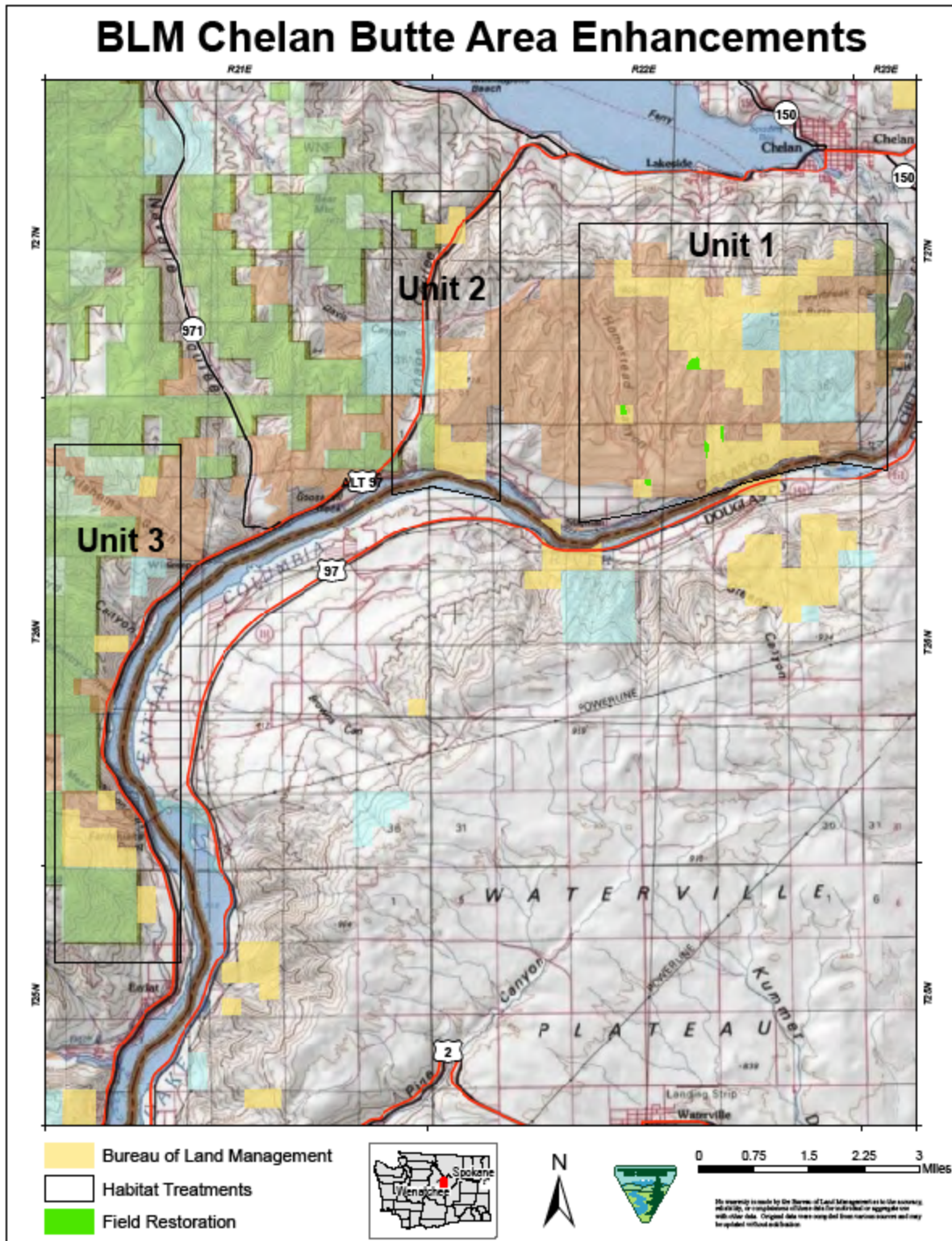


Figure 6: Chelan Butte Area Habitat Projects, BLM.

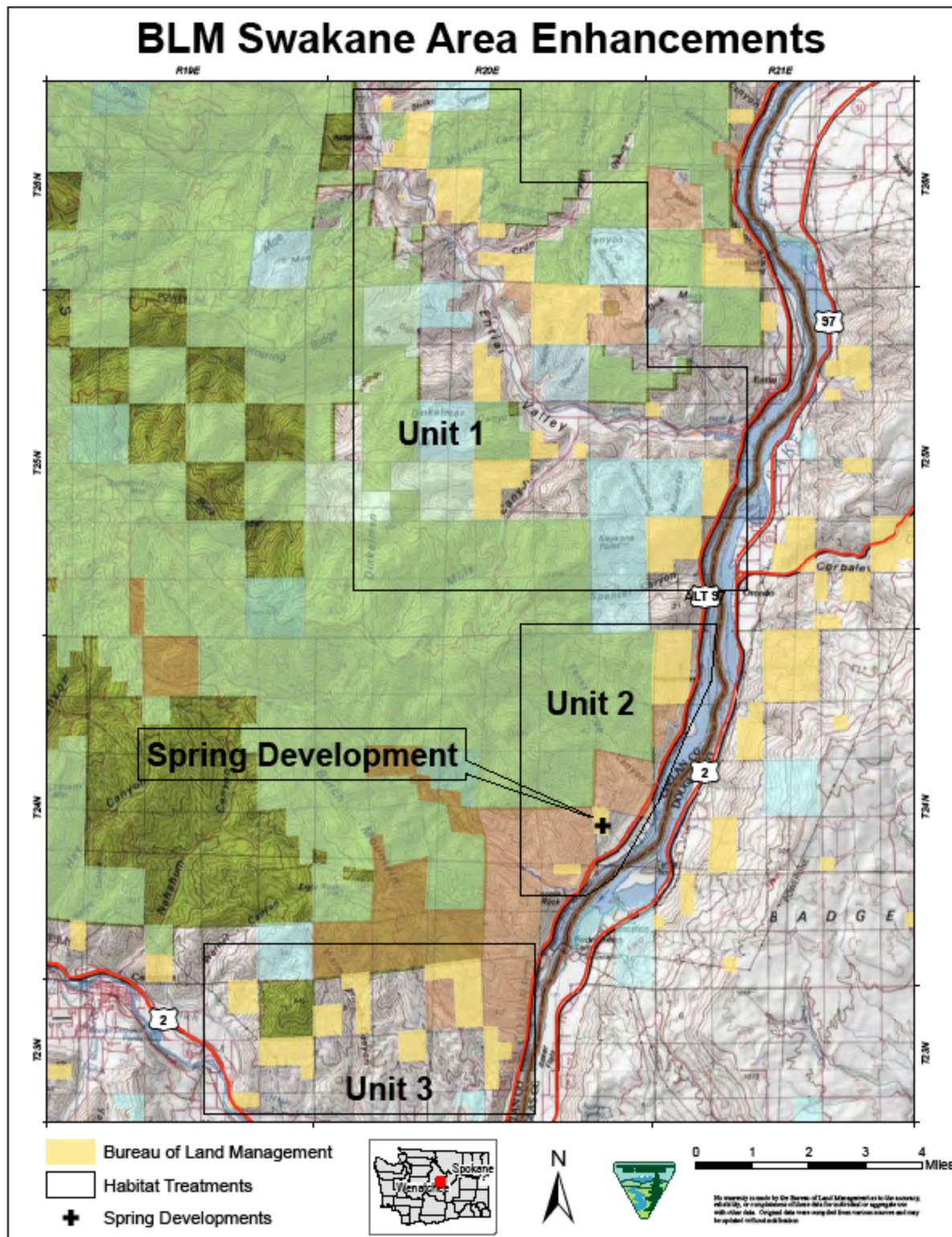


Figure 7: Swakane Area Habitat Projects, BLM.

4.3 Habitat Restoration on USDA Forest Service Lands

Chelan PUD will assist the USDA Forest Service by implementing the following proposed projects⁵ on the Entiat Ranger District, Okanogan and Wenatchee National Forests. 2010 – 2015 adjacent to the Rocky Reach project (Figure 8).

1) Mule Deer and Bighorn Sheep Key Winter Range –

- Improve mule deer and bighorn sheep winter range within the Swakane Creek drainage with a combination of slash thinning and/or prescribed fire. There are approximately 700 acres of forested stands (non-contiguous) in different areas within the Swakane drainage that would benefit from treatment. Portions of the thinning units are outside of the RRWA boundary. However, they are within the same drainage within key winter range and will be beneficial to the animals using that drainage in the winter. These treatments would likely be implemented over a 3 year time period, beginning in the fall of 2010.

1. Approximately 400 acres prescribed burning
2. Approximately 300 acres slash thinning

2) Ungulate Mineral Supplements

- Ungulate mortality as a result of collisions with vehicles is an ongoing issue on State Highway 97A, especially in the winter and early spring. Bighorn sheep and mule deer are repeatedly observed licking the road surface during the winter after application of de-icer on the roadway. We propose to coordinate with WDFW to develop a strategy to test a mineral supplement for wild ungulates. The supplement will be deployed (via helicopter) in locations within the winter range to decrease the need for these animals to go down to the highway in the winter.

3) Weed Control

- Noxious weed management in the Swakane is an ongoing effort by the USFS. Weed control is an essential mitigation to prescribed fire and enhances desired forage production. Weed control on winter range would benefit mule deer and bighorn sheep, as well as carnivores dependent on these ungulates, and other species dependent on shrub-steppe and grassland habitats.

Contingency Planning

- 1) Accomplishing the projects listed above depends a great deal on environmental factors and funding. As such, we have included additional contingency projects in case factors, such as wildfire, weather, etc., prevent accomplishment of the above. Chelan PUD will assist the USFS to decommission roads closed by the USFS and/or thinning and prescribed burning within key mule deer winter range north of the Entiat (ie. near Osburn Canyon, Crum Canyon, etc.). If contingency measures are needed Chelan PUD will revise the plan for Commission approval.

⁵Projects proposed do not require maintenance or monitoring to ensure success, rather, all projects are one-time treatments, or a series of activities (see Table 3). Therefore, none of these lands need be incorporated into the Rocky Reach Project boundary.

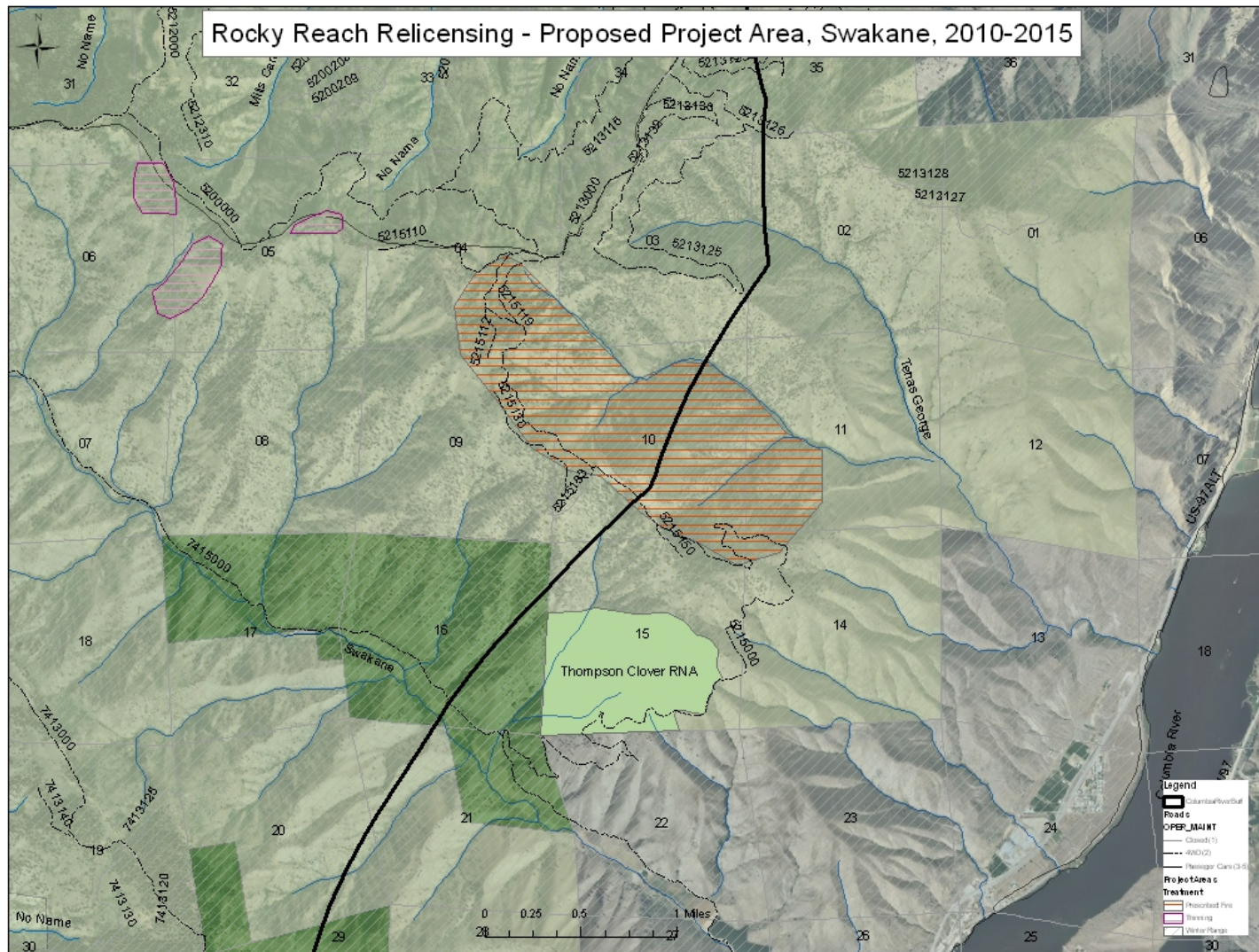


Figure 8: USFS Entiat Ranger District Habitat Improvement Projects, 2010-2015.

4.4 Noxious Weed Control

Chelan PUD currently maintains a noxious weed management program to control noxious weeds on Chelan PUD property. Many of the funding allocations previously described provide resource agencies with funding to manage noxious weeds on their respective lands. Therefore, consistent with the Settlement Agreement (Chelan PUD 2006), Chelan PUD will continue to make available \$10,000 annually to manage noxious weeds on Chelan PUD lands or other areas within the RRWA not previously described to manage noxious weeds.

SECTION 5: SUN COVE PROPERTY

5.1 Sun Cove Property Conservation Easement

As directed by the Commission in Article 403 and consistent with the Settlement Agreement, Chelan PUD will provide a 50-foot wide by 3,500-foot long riparian buffer zone on the Chelan PUD's Sun Cove property to preserve its relatively natural condition except for two 100-foot-long access corridors to provide community access.

SECTION 6: WILDLIFE SURVEYS

Article 403 of the new license directs the licensee to conduct annual winter bald eagle surveys and Canada goose nesting surveys for the term of the license in coordination with the RRWF. In 2007, following the delisting of the bald eagle, Chelan PUD began doing monthly bald eagle surveys rather than bi-weekly. The delisting monitoring plan for bald eagles focuses on nest monitoring every 5 years for a 20 year period and suggests that annual winter monitoring could provide additional information on population status (USFWS 2007). Monthly monitoring of winter bald eagle distribution and abundance will exceed most current monitoring standards and will provide ample data to monitor trends for wintering bald eagles along Rocky Reach Reservoir. Chelan PUD will continue to conduct monthly winter bald eagle counts from November through March annually to monitor winter abundance on the Reservoir. Consistent with the bald eagle recovery plan, Chelan PUD has been monitoring bald eagle nests within the RRWA since the first nest was discovered in 2005. By 2009, a maximum of 5 bald eagle nesting territories had been observed along Rocky Reach Reservoir. Chelan PUD will continue to conduct annual bald eagle nesting surveys in coordination with the RRWF.

Canada goose nesting surveys along Rocky Reach Reservoir were initiated as a pre-implementation measure for the 1991 proposed pool raise on the Rocky Reach Reservoir. The pool raise was rejected in 1996 and never implemented, however, Canada goose nest monitoring by Chelan County PUD continued. Rocky Reach Reservoir has approximately 20 islands which are used by Canada geese for nesting. In addition, there are currently 20 artificial nesting platforms which were erected as part of the 1991 proposed Rocky Reach pool raise. Chelan PUD will continue monitoring Canada goose nesting during March and April annually; the need for maintaining Canada goose nesting platforms into the future will be evaluated by the RRWF and addressed in subsequent 5-year plans.

SECTION 7: REPORTING

If approved by the Commission, this wildlife habitat plan will be updated and filed for Commission approval at a minimum of every five years. The updated plan will provide a summary of habitat improvement measures implemented during the first five years and measures proposed for the next five years. Annual wildlife survey reports will be provided to WDFW as required and the RRWF.

SECTION 8: LITERATURE CITED

- Calypso Consulting. 1990. A botanical inventory and rare and sensitive plant survey of the Rocky Reach reservoir. Calypso Consulting, 2405 West Shore Drive, Lummi Island, Washington.
- Calypso Consulting. 2000. A rare plant survey of the Rocky Reach reservoir -final, Rocky Reach Hydroelectric Project No. 2145. Prepared by Calypso Consulting, Bellingham, Washington, for Chelan PUD. December 15, 2000. 49 pp.
- Chelan PUD. 2006. Final Comprehensive Settlement Agreement for Rocky Reach Project No. 2145. February 3, 2006.
- DES. 2000. RTE wildlife and cover-type mapping - final, Rocky Reach Hydroelectric Project No. 2145. Prepared by DES, Bellingham, Washington, for Chelan PUD. December 15, 2000. 138 pp.
- Fielder, P. C. 1982. Food habits of bald eagles along the mid-Columbia River, Washington. Murrelet 63:46-50.
- Fielder, P. C. 2003. Canada goose nesting 2003, Rock Island and Rocky Reach reservoirs. An annual report summarizing data from 1982 - 2003. Chelan PUD, Wenatchee, Washington.
- Franklin, J. F., and C. T. Dyrness. 1973. Natural vegetation of Oregon and Washington. USDA For. Serv. Gen. Tech. Rep. PNW 8. USFS, Portland.
- Myers, W. L. 2003. Observations of mule deer habitat use, movements, and survival in Chelan County, Washington. Prepared by WDFW for Chelan PUD. W. L. Myers, ed. June 6, 2003. 77 pp.

APPENDIX A: CONSULTATION

Chelan PUD responses to comments on the Draft Rocky Reach Wildlife Habitat Management Plan

Development of the Rocky Reach Wildlife Habitat Management Plan was completed in coordination with the Rocky Reach Wildlife Forum (RRWF). The RRWF includes representatives from the US Fish and Wildlife Service, US Bureau of Land Management, US Forest Service, and Washington State Department of Fish and Wildlife. A formal 30-day consultation period was provided to the RRWF October 30, 2009 – November 30, 2009. The table below summarizes comments received on the Wildlife Habitat Management Plan and Chelan PUD’s responses to those comments. Additionally, the Rocky Reach Wildlife Management Plan was provided to the Rocky Reach Recreation Forum (RRRF) on November 3, 2009 for review to ensure consistency with project and adjoining public land management goals and objectives. No comments were received from the RRRF.

Agency	Comment	Chelan PUD response	RRWF Review 12/10/2009
WDFW	Figure 1 (and all other figures): Hard to read in black & white copy. Is it possible to increase the contrast in the printing process so that black & white copy is easier to read?	Due to the complexity of the GIS figures, they are intended to be viewed in color.	Inserted notation under “List of Figures” in TOC stating “Due to the complexity of GIS figures, they are intended to be viewed in color.”
WDFW	Section 3: Include in narrative when the Rocky Reach pool was raised. What was the percent of disturbed developed and modified cover types then?.	The Rocky Reach Pool was created in 1961 when the project was completed. This fact is stated in the first paragraph under Background. Baseline data for Rocky Reach cover types are not available for comparison.	No further changes requested. “the” was inserted prior to “Mule Deer Mortality Study” at the end of paragraph 1.
WDFW	Table 1: In black & white copy appears confusing, as the “Purpose” and “Activity” column lines do not line up well with text under other headings and is difficult to read.	Text was modified to “line-up” text.	“Wildlife Unit” heading was made plural to avoid confusion due to multiple units. “Mechanical/chemical” replaces “disk fields and/or” to allow for more flexibility in preparing each unit for rehabilitation. Additionally, further detail was added to some entries under “Wildlife Units,” “Activities” and “Purpose.”

Chelan PUD responses to comments on the Draft Rocky Reach Wildlife Habitat Management Plan

Agency	Comment	Chelan PUD response	RRWF Review 12/10/2009
WDFW	Figure 2: In the legend, shouldn't the Project boundary read "Rocky Reach Project Boundary" instead of "ChelansProject Boundary?"	Map legend was corrected.	No further action requested.
WDFW	Section 4.2.1: change 100 plants/acres to read 100 plants/acre. Inquiry into whether the prescribed amount was a standard planting density, as it seemed "skimpy." Also, insert the word "sheep" following the word "bighorn" under the second bullet.	Delete s from acres. Standards and management objectives may vary between agencies. The question of plant density on BLM land may be addressed through the Rocky Reach Wildlife Forum.	Removed "quantity/acre" of plantings to allow for more site-specific prescriptions. Added "sheep" after "bighorn." Also, table 2 was modified to better identify Wildlife Areas and units, and to clarify "Area Unit", "Activity" and "Purpose" in the tables. Headings on the BLM Figures 5 – 7 are to be changed to avoid confusion with WDFW Units.
WDFW	Section 5: Access corridors should be placed at an oblique angle (45 degree) and width should be around 12 feet.	The Rocky Reach Comprehensive Settlement Agreement states that; "The easement shall further provide for two 100-foot-long access corridors along the riverward portion of the property, at locations to be approved by WDFW, ...".	This should be addressed at the time the easement and corridors are established
WDFW	Section 6: Wildlife Surveys "..provide additional info on population status" does WDFW want to insert "esp. BAEA recruitment" (is this a note-to-self or a comment?)	Yes, nesting data may be used to determine recruitment on a whole.	Comment was acknowledged but no changes were made to paragraph.

Chelan PUD responses to comments on the Draft Rocky Reach Wildlife Habitat Management Plan

Agency	Comment	Chelan PUD response	RRWF Review 12/10/2009
WDFW	Section 6: Wildlife Surveys (CAGO nest monitoring): What percentage of platforms are used by geese for nesting? What is the estimated gosling production? What is the estimated hunter harvest & hunt-days (i.e., recreation) for this area	Artificial nest platform use and gosling production are provided to WDFW in annual reports on Canada goose nesting success. These data may be used to calculate recreational benefit with harvest data collected by WDFW.	<p>The first line was modified to read “Canada goose nesting surveys ...for the term of the license in coordination with the RRWF. A new sentence at the end of paragraph 1 was inserted: “Chelan PUD will continue to conduct annual bald eagle nesting surveys in coordination with the RRWF.”</p> <p>Also, the number of platforms currently existing (n = 20) was added to the second paragraph in Section 6.</p> <p>The last sentence of paragraph 2 was modified to read “March and April annually; the need for maintaining Canada goose nesting platforms into the future will be evaluated by the RRWF and addressed in subsequent 5-year plans.”</p>
WDFW	Section 7: Reporting 2nd line—“plan will provide a”...replace “a” with: an annual summary	Annual summaries will be provided in the form of annual reports as required. The 5-year plan will summarize those reports for the 5-year period.	The last line was modified to read “Annual wildlife survey reports will be provided to WDFW as required and the RRWF.”

Chelan PUD responses to comments on the Draft Rocky Reach Wildlife Habitat Management Plan

Agency	Comment	Chelan PUD response	RRWF Review 12/10/2009
WDFW	Section 7: Reporting 3rd line— “the first five years and” insert: annual wildlife response over time, along with	Since Canada geese and bald eagles are migratory and are affected by a number of ecological factors beyond Rocky Reach Reservoir, any increase or decrease in presence may not be directly related to measures contained in the Rocky Reach Wildlife Habitat Plan.	RRWF members agreed that the need for specific wildlife surveys should be evaluated over time and adjusted as seen fit by RRWF members.
WDFW	3.1.1 RTE Wildlife Cover-type Mapping , 1 st paragraph regarding habitat changes over time. Comment, “Put another way, 40 to 60 percent of the land formerly supporting native wildlife habitat has been converted to human uses”.	Correct. According to the assessment and as stated in the second sentence “approximately 57% of lands near the project are comprised of disturbed, developed, or modified cover-types”.	WDFW comment received January 12, 2010
WDFW	3.1.1 RTE Wildlife Cover-type Mapping , 2 nd paragraph regarding increase in riparian cover. Comment, “However, the present successional riparian vegetation is mainly deciduous and provides scant thermal benefit to wildlife during winter’s arduous conditions”.	Comment noted. This paragraph focuses on the dramatic increase in the amount of riparian vegetation since construction of the Project. The function of the riparian was not the focus of the paragraph.	WDFW comment received January 12, 2010
WDFW	Section 4.Wildlife Habitat Improvements , 2 nd paragraph first sentence. Delete statement “outside the project boundary” in the sentence “All of the proposed projects are located outside the Rocky Reach project boundary, but within or very near the 6-mile corridor of the RRWA (Figure	Statement deleted. Sentence modified to read: “All of the proposed projects are within or very near the 6-mile corridor of the RRWA (Figure 1).”	WDFW comment received January 12, 2010

Chelan PUD responses to comments on the Draft Rocky Reach Wildlife Habitat Management Plan

Agency	Comment	Chelan PUD response	RRWF Review 12/10/2009
	1).		
WDFW	Figure 2. It may be helpful to state that the black areas on the figure are shadows and not designations of anything else.	The shadows help identify topography and are not identified in the legend.	WDFW comment received January 12, 2010
WDFW	Figure 3. The white label “Swakane Unit” doesn’t stand out and should be changed.	Change made	WDFW comment received January 12, 2010
WDFW	4.2 Habitat Restoration on BLM Lands, 1 st sentence, “The RRWA has been previously described as 6 mi. wide; 3 miles on each side of RR res. Shouldn’t this be, ‘within 3 miles’?”	We understand the BLM’s intent to be the 6-mile wide corridor, 3 miles on either side of Rocky Reach Reservoir.	WDFW comment received January 12, 2010
WDFW	5.1 Sun Cove Property Conservation Easement, change the word public access to pedestrian access.	To be consistent with the language in the Settlement Agreement, this was changed to “community access”.	WDFW comment received January 12, 2010
WDFW	Section 6: Wildlife Surveys, 2 nd paragraph. What is the average amount of goose nesting on platforms to date? Please provide number.	Annual reports of Canada goose nesting success are provided to WDFW. Specific data for the average number of nests on artificial platforms vs. natural substrates for Rocky Reach is not currently available. These data may be calculated from information contained in previous annual reports.	WDFW comment received January 12, 2010