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# **ROCKY REACH WILDLIFE MANAGEMENT PLAN**

**Final Draft**

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

**August 16, 2005**



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## **EXECUTIVE SUMMARY**

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Under the direction of the Natural Resources Working Group (NRWG), numerous studies were conducted during the Rocky Reach Project (Project) relicensing process, including mapping of rare, threatened, and endangered wildlife and cover-type, a survey of botanical resources, surveys of Canada goose nesting, surveys of bald eagle overwintering abundance, and a study of overwinter mule deer mortality. The Wildlife Technical Group (WTG) representatives developed the measures included in this Rocky Reach Wildlife Management Plan (WMP) to provide benefit to local wildlife and botanical resources.

The goal of the WMP is to protect and enhance wildlife populations and habitat in the vicinity of Rocky Reach Project. Chelan PUD has agreed to implement several Protection, Mitigation, and Enhancement measures (PMEs) for wildlife as part of the Rocky Reach Comprehensive Settlement Agreement. The objectives of these PMEs are to: 1) restore, maintain, or improve Chelan Wildlife Area (CWA) lands; 2) restore, maintain, improve, or increase habitat for key indicator wildlife species; and 3) implement the Ute Ladies Tresses (*Spiranthes diluvialis*) Along Rocky Reach Reservoir Management Plan.

The specific PMEs to be implemented by Chelan PUD during the term of the New License and any subsequent annual licenses to meet these goals and objectives are described in section 4 of the WMP. They include the following:

- 1) Funding to restore, maintain, and improve the CWA;
- 2) Funding for habitat restoration on Washington Department of Fish and Wildlife (WDFW) lands;
- 3) Funding for habitat restoration on US Bureau of Land Management (BLM) lands;
- 4) Funding for habitat restoration on USDA Forest Service lands;
- 5) Providing a conservation easement on Chelan PUD Sun Cove property;
- 6) Funding for an integrated noxious weed control program;
- 7) Conducting wildlife surveys;
- 8) Funding for noxious weed control, specifically for rare, threatened and endangered botanical species;
- 9) Funding for rare, threatened and endangered botanical species monitoring; and
- 10) Funding for a conservation easement for rare, threatened and endangered botanical species protection.

## ***SECTION 1: INTRODUCTION***

The relicensing process for the Rocky Reach Hydroelectric Project (Project) brought fisheries, wildlife, and botanical resource agencies, tribes, and interested parties together in a Natural Resources Working Group (NRWG) that provided an opportunity for comprehensive review of current and future management priorities for fish, wildlife, and botanical resources potentially impacted by ongoing Project operations. The NRWG was established to identify issues, develop study plans, review study reports, and develop long-term management plans for fish and wildlife species. The NRWG consisted of representatives from the USDA Forest Service, US Fish and Wildlife Service (USFWS), NOAA Fisheries (NOAA), Washington Department of Ecology (WDOE), Washington Department of Fish and Wildlife (WDFW), the US Bureau of Land Management (BLM), the Colville Confederated Tribes (CCT), the Yakama Nation (YN), Columbia River Inter-Tribal Fish Commission (CRITFC), and other interested parties.

Technical groups were formed for each comprehensive plan e.g., resident fish, white sturgeon, bull trout, Pacific lamprey, and wildlife due to the complexity of issues surrounding each species and so that agency experts could focus on meetings pertaining to their specific expertise. A subgroup of the NRWG, the Wildlife Technical Group (WTG), comprised of the USDA Forest Service, USFWS, WDOE, WDFW, and Chelan PUD, completed this Wildlife Management Plan (WMP). Following the effective date of the New License, and any subsequent annual licenses, the Rocky Reach Wildlife Forum (RRWF) will assume responsibility for meeting to share information, coordinate efforts, and make recommendations regarding the implementation of this WMP.

State lands included in the Chelan Wildlife Area (CWA) (the Swakane, Entiat, and Chelan Butte Units) are those of the WDFW, and the Washington Department of Natural Resources (DNR). Federal lands in the Rocky Reach Wildlife Area, defined as public lands in Chelan County and Douglas County within approximately a 6-mile corridor of the Rocky Reach Reservoir (Reservoir) include those of the USDA Forest Service, BLM, and USFWS lands adjacent to their hatchery (Figure 1). The primary areas of concern include: 1) the Rocky Reach Wildlife Area; 2) the CWA; and 3) Chelan PUD lands. The RRWF will have the flexibility to recommend undertaking projects beyond these boundaries when it is demonstrated that there is an important wildlife/habitat link to primary areas (e.g., migration corridor, limiting factors).

The WTG representatives developed the measures included in this WMP to provide benefit to local wildlife and botanical resources. This WMP contains sections highlighting the background of wildlife species (section 2), relicensing and other studies conducted to determine ongoing Project-related impacts, if any, on wildlife, and potential wildlife enhancement measures (section 3), goals and objectives of the management plan (section 4), and Protection, Mitigation, and Enhancement measures (PMEs) for wildlife that Chelan PUD is to implement through the term of the New License, and any subsequent annual licenses (section 4).

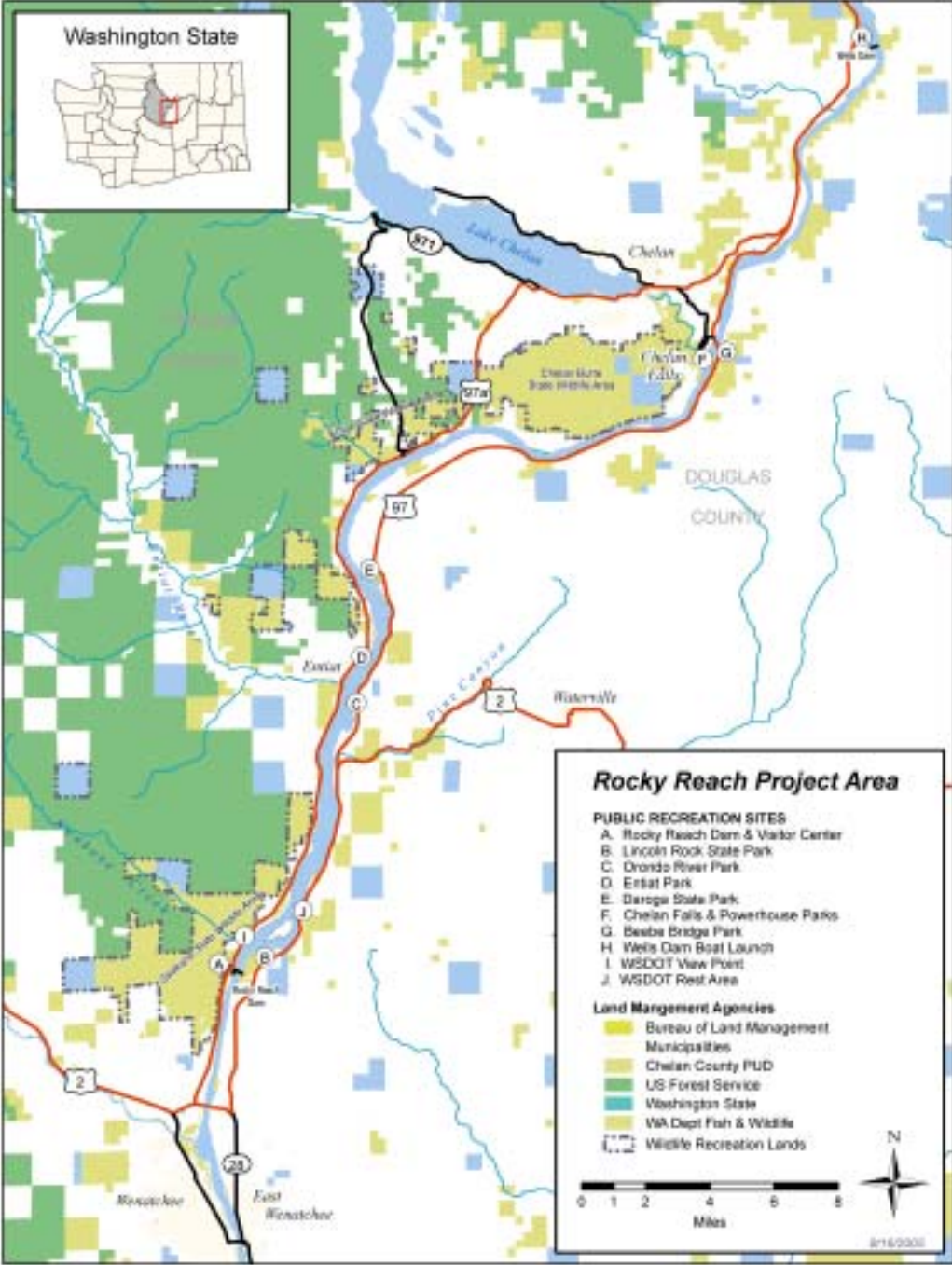


Figure 1: Rocky Reach Project Area

## 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 of 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 cultivated with a variety of crops or is grazed by livestock. Irrigated cropland and orchards dominate the river corridor lands around the Project and 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 CWA lands. 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, USDA Forest Service, and DNR, along with some private land in-holdings. 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 Reservoir, and have been recorded occasionally within the Project Boundary. Upland game birds that use the 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*).

An important component of the WMP is to convert the existing 1,300-1,400 acres of agricultural lands on CWA lands into self-maintaining shrub steppe-habitat vegetated by bunchgrasses and shrubs such as snowy eriogonum, lupine, balsamroot, big sage, bitterbrush, serviceberry, elderberry. Additional portions of that objective would be to maintain strips of forage crops within the larger expanses of restored shrub steppe. These strips would provide annual, high quality forage and would serve as firebreaks. Noxious weed control would also be an important part of management of these lands.

## **SECTION 3: STUDIES AND EVALUATION OF PROJECT EFFECTS**

Under the direction of the 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 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/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 (whitetop)

(*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 (*Epipactus 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 casual 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, 30 to 80 pairs of geese have nested annually along the Reservoir. Currently, Chelan PUD maintains 31 artificial nest structures for geese along the Reservoir. Each year about two-thirds of the nests are successful in producing approximately 200 goslings.

### **3.2.2 Bald Eagle Overwinter Abundance Surveys**

Bald eagle overwinter abundance surveys have been conducted by Chelan PUD on the Reservoir since 1982. Several adult bald eagles (*Haliaeetus leucocephalus*) were observed in the vicinity of the Project during the wildlife survey in 2002 (DES, 2000). Eagles were seen during the summer season, but no evidence of nesting was documented. In addition, 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). Bald eagles are not known to breed within the Project Boundary.

Chelan PUD and the wildlife management agencies (WDFW, USDA Forest Service, BLM, and USFWS) that participated in development of this plan anticipate that habitat and wildlife enhancement activities and projects could include some of the general management recommendations provided in this section. Several of these items were addressed through the Lake Chelan Project relicensing proceeding, while others may be funded by Chelan PUD, USDA Forest Service, BLM, and WDFW. The WTG has developed the following potential activities and projects for lands in the Chelan and Rocky Reach Wildlife areas:

## **3.3 Potential Activities and Projects on Wildlife Lands**

### **3.3.1 Habitat**

- Identify the needs and habitat types that address the biology of each of the indicator or key species.
- Use existing habitat inventories, to the extent possible, to guide habitat management on public lands in Chelan and Douglas counties adjacent to the Reservoir.
- Re-establish shrub steppe habitat and/or herbaceous cover in present agricultural fields and other suitable sites.
- Monitor and control noxious weeds, and re-establish competitive permanent, native vegetative cover.
- Plant shrubs in steppe habitat.
- Develop additional deer winter range using native and fire resistant browse species.
- Apply fertilizer, prune, and/or use controlled burns to maximize forage production and palatability.

### **3.3.2 Agronomy**

- Establish annual and perennial irrigated wildlife plantings where appropriate in Swakane Canyon.
- Establish dry-land wildlife/cover plots in suitable areas.

### **3.3.3 Tree and Shrub Plantings**

- Plant shrub and trees to develop riparian strips, wetland areas, shorelines, and lands in irrigated and sub-irrigated areas.
- Establish corridors of evergreen trees to provide large mammal travel lanes and thermal cover.

### **3.3.4 Erosion Control**

- Construct a series of erosion control structures in selected canyons.
- Plant herbaceous and woody vegetation in sediment basins and sub-irrigated areas associated with these structures.

### **3.3.5 Water Developments**

- Optimize availability of water from springs and streams, improve developed springs, and develop new springs.
- Install water guzzlers where needed.
- Replace livestock tanks with wildlife watering basins.
- Maximize pond construction and water storage throughout the area to create wetlands, riparian habitat, and provide water for wildlife use, fire fighting, irrigation, and noxious weed control at strategic locations.
- Provide water for butterfly populations.

### **3.3.6 Irrigation**

- Improve efficiencies and optimize water used by improving existing irrigation system.
- Develop irrigation systems at other locations where appropriate.

### **3.3.7 Nesting and Raptor Perching Structures**

- Provide artificial nesting structures throughout the area, as needed, as an interim project until planted trees grow to functional size.
- Provide brush piles to offer dense escape cover as an interim project until planted riparian habitat grows to functional habitat.
- Preserve crucial perching habitats for bald eagles that migrate through the Rocky Reach Wildlife Area

### **3.3.8 Wildlife Re-establishment**

- Re-introduce native wildlife that no longer exist in area vicinity or exist in low numbers (e.g., sharp-tailed grouse, bighorn sheep).
- Transplant wildlife within an area as determined desirable.

### **3.3.9 Habitat Connectivity**

- Restore, enhance, maintain, or improve habitat or key species corridors that provide landscape linkages, especially migration corridors.
- Consider consolidation of land units.

### **3.3.10 Ecosystem Processes**

- Provide for various ecological processes (fire, riparian large woody debris jams, cavities, etc.) that provide various “renewal” age classes, site condition changes, or development of natural features beneficial to wildlife.

### **3.3.11 Habitat Protection**

- Enforcement to protect investment of wildlife enhancement areas.
- Education.
- Maintenance.

### **3.3.12 Public Use Management**

- Ensure that public use does not impact resource or habitat.
- Construct interpretive facilities and wildlife viewing sites.
- Coordinate efforts with recreation planning.
- Ensure overlap and coordination with habitat protection efforts.
- Include elements of education, interpretation, control, and enforcement.

### **3.3.13 Comprehensive Property Management**

- Manage the Rocky Reach Wildlife Area and intermixed properties to maximize resource protection and land stewardship.
- Optimize compatible recreation use of public lands within the Rocky Reach Wildlife Area.
- Monitor and evaluate effectiveness of improvements

## **SECTION 4: PROTECTION, MITIGATION, AND ENHANCEMENT MEASURES**

The WTG representatives developed the measures included in this WMP to provide benefit to local wildlife and botanical resources. The goal of the WMP is to protect and enhance wildlife populations and habitat in the Rocky Reach Wildlife Area. Chelan PUD has agreed to implement the following wildlife and botanical protection, mitigation and enhancement (PME) measures as part of the Rocky Reach Comprehensive Settlement Agreement to meet the following objectives:

Objective 1: Restore, maintain, or improve Chelan Wildlife Area lands;

Objective 2: Restore, maintain, improve, or increase habitat for key indicator wildlife species; and

Objective 3: Implement the Ute Ladies Tresses (*Spiranthes diluvialis*) Along Rocky Reach Reservoir Management Plan.

Wildlife key indicator species for purposes of the WMP include mule deer and bighorn sheep, rare, threatened, endangered, and sensitive species, species of concern, or priority species.

To ensure better comprehensive assessment of short and long term wildlife habitat activities and needs, the RRWF will meet at least annually to coordinate efforts, and to make recommendations regarding the expenditure of funds and other resources. It is anticipated that in some years agencies could pool resources for mutually beneficial projects. All funding identified in section 4 is available to be used for application for matching funds. Adaptive management is a key component of implementing the WMP successfully during the term of the New License and any subsequent annual licenses for the Project. Therefore, the WTG recommends that members of the RRWF with funding and management responsibilities described in this plan, provide to the RRWF an annual report documenting actions taken and funded during the year, accomplishments, monitoring and evaluation results of such actions, and recommendations for future actions.

An analysis of potential projects and costs to restore, maintain, and improve CWA lands, focusing primarily on WDFW lands, was conducted by wildlife biologists Marc Hallet (WDFW) and Paul Fielder (Chelan PUD) (Hallet and Fielder, 2004). The analysis identified habitat restoration projects and areas within the CWA. A similar analysis within the Rocky Reach Wildlife Area was conducted for BLM lands by John Musser (BLM), Neil Hedges (BLM), and David St. George (BLM) (Musser et al., 2004). Both analyses, Chelan PUD relicensing baseline studies, and Chelan PUD's commitment to continue several existing license measures into the New License were used by the WTG as guidance for some of the recommended actions that follow in this section. It is not intended that future projects be limited to those mentioned in the analyses above.

A component of restoring, maintaining, and improving wildlife habitat is to implement measures that provide for compatible public use of Rocky Reach Wildlife Area lands. The Rocky Reach Recreation Resources Management Plan (RRMP) proposes to conduct a Recreation Use Assessment during the New License term. A component of the study is to include “analysis of wildlife impacts resulting from recreation use of the reservoir. This analysis shall be done in coordination with the Rocky Reach Wildlife Forum established under section 18 of the Settlement Agreement.” The WTG desires to have the same level of coordination between the RRWF and the Rocky Reach Recreation Forum (RRRF) when habitat restoration, maintenance, and improvement projects are implemented in order to provide for such compatible public use.

Projects to restore, maintain, and improve habitat will be funded under the WMP with direction from the RRWF, while recreation related projects will be eligible to apply to the Recreation Enhancement Fund for funding through the RRMP under direction from the RRRF.

The WTG recommends that Chelan PUD implement the following PMEs:

**4.1 Objective 1: Restore, Maintain, or Improve Chelan Wildlife Area Lands**

Chelan PUD shall make available to WDFW \$74,000 annually, for the term of the New License and any subsequent annual licenses, to restore, maintain, or improve CWA lands.

**4.2 Objective 2: Restore, Maintain, Improve, or Increase Habitat for Key Indicator Wildlife Species**

**4.2.1 Habitat Restoration on WDFW lands**

Chelan PUD shall make available funding to WDFW, for the term of the New License and any subsequent annual licenses, to restore 1300-1400 acres in the CWA previously under cultivation or in need of restoration, as identified in the WMP, to self maintaining shrub-steppe habitat vegetated by bunchgrasses and shrubs such as snowy eriogonum, lupine, balsamroot, big sage, bitterbrush, serviceberry, elderberry. Additional portions of that objective would be to maintain strips of forage crops within the larger expanses of restored shrub-steppe. These strips would provide annual, high quality forage and would serve as firebreaks.

Chelan PUD shall provide funding as follows:

- a. Within 180 days of the effective date of the New License, Chelan PUD shall make available to the WDFW an amount not to exceed \$286,000 to restore 1300-1400 acres in the CWA previously under cultivation or in need of restoration;
- b. Within 180 days of the effective date of the New License, and by January 31<sup>st</sup> of subsequent years two through six of the New License, Chelan PUD shall make available \$67,000 to WDFW for the habitat restoration of agricultural lands in the CWA; and
- c. During years 10 through 50 of the term of the New License, Chelan PUD shall make available to WDFW an amount not to exceed \$457,000 to restore, maintain, or improve the CWA.

It is the understanding of the RRWF participants that WDFW resources may be used anywhere within the Rocky Reach Wildlife Area, per the recommendation of the RRWF.

#### ***4.2.2 Habitat Restoration on BLM Lands***

Chelan PUD shall make available to the BLM \$20,000 annually and up to \$20,000 annually on a 50/50 matching basis, for the term of the New License and any subsequent annual licenses, to restore, maintain, or improve intermixed BLM lands within the Rocky Reach Wildlife Area. Funding in this section may be used for native shrub-steppe habitat rehabilitation, noxious weed control, native forbe replanting, water development projects, etc., on BLM lands within the Rocky Reach Wildlife Area.

#### ***4.2.3 Habitat Restoration on USDA Forest Service Lands***

Chelan PUD shall make available to the USDA Forest Service \$5,000 annually, and up to \$5,000 annually on a 50/50 matching basis, for the term of the New License and any subsequent annual licenses, to restore, maintain, or improve USDA Forest Service administered lands within the Rocky Reach Wildlife Area. Funding in this section may be used for native shrub-steppe habitat rehabilitation, noxious weed control, native forb replanting, and prescribed fire ecosystem processes, etc., on USDA Forest Service administered lands within the Rocky Reach Wildlife Area.

#### ***4.2.4 Sun Cove Property Conservation Easement***

Chelan PUD shall enter into a contract with the Chelan-Douglas Land Trust, or other appropriate entity, to pursue and fund acquisition of a conservation easement and limited access to the Reservoir on Chelan PUD property near Sun Cove for protection of the shoreline riparian area. The easement will also allow the remaining portions of the properties to be managed or sold by Chelan PUD at its discretion.

#### ***4.2.5 Integrated Noxious Weed Control Program***

Chelan PUD, in consultation with the RRWF, shall make available \$10,000 per year, for the term of the New License and any subsequent annual licenses, for implementation of an integrated noxious weed control program in the Rocky Reach Wildlife Area. Implementation of the program described in this subsection will be conducted by Chelan PUD personnel or other qualified personnel selected by the RRWF. Noxious weeds species will be defined by the Washington Natural Heritage Program, Washington State Weed Board, or other entity recommended by the RRWF.

Assumptions:

- Does not include aquatic weeds; and
- There will be ample opportunities for efficiencies through inter-agency cooperation and coordination. Propose is to develop area-wide noxious weed control strategy.

#### ***4.2.6 Wildlife Surveys***

Chelan PUD, in coordination with the RRWF, shall continue to conduct wildlife surveys similar to those conducted during the first FERC license for the Project and/or habitat improvement projects for a cost not to exceed \$10,500 or equivalent staff-days per year during the term of the New License and any subsequent annual licenses. The intent of this funding is to survey and

monitor threatened, endangered and sensitive species on a periodic schedule as directed by the RRWF. Survey techniques and schedule will be developed in coordination with the RRWF. Surveys should be conducted on an annual basis and address priority species. Chelan PUD shall provide an annual report of survey results to the RRWF.

**4.3 Objective 3: Implement the Ute Ladies Tresses (*Spiranthes diluvialis*) Along Rocky Reach Reservoir Management Plan**

**4.3.1 Noxious Weed Control for *Spiranthes***

Chelan PUD, in coordination with the RRWF, shall make available \$5,000 per year, for the term of the New License and any subsequent annual licenses, for implementation of a noxious weed control program for *Spiranthes*, other species of concern, or future listed species where *Spiranthes* needs are satisfied in the Rocky Reach Wildlife Area. Implementation of the program described in this subsection will be conducted by Chelan PUD personnel or other qualified personnel selected by the RRWF.

**4.3.2 *Spiranthes* Monitoring**

Chelan PUD shall make available \$3,000 per year to qualified personnel selected by the RRWF, for the term of the New License and any subsequent annual licenses, for implementation of an annual *Spiranthes* (or other species should *Spiranthes* “requirements” be met) monitoring program and report. Funds may accumulate, if surveys are not conducted in any given year, to a maximum of \$15,000. The Ute Ladies’ Tresses *Spiranthes diluvialis* Along Rocky Reach Reservoir Management Plan will be used as a guideline for implementing the *Spiranthes* monitoring program (Chelan PUD, 2005). Chelan PUD shall prepare a report, by January 31<sup>st</sup> of the year following years when monitoring is conducted, of *Spiranthes* monitoring results to be submitted to the RRWF with approval from the USFWS.

**4.3.3 Conservation Easement**

Chelan PUD shall enter into a contract with the Chelan-Douglas Land Trust, or other appropriate entity, to pursue acquisition of conservation easements on private lands to protect *Spiranthes* sites. The total cost to Chelan PUD of acquiring conservation easements under this subsection is not to exceed \$ **XXX**. (Chelan PUD to determine value.)

## ***SECTION 5: LITERATURE CITED***

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