

Rocky Reach Project Relicensing

Full Team Meeting
Jan 23, 2003

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Agenda

- 1. Rocky Reach Relicensing Schedule**
- 2. Review of License Application**
- 3. Review of “First Draft” Preliminary Draft Environmental Assessment (PDEA)**

Rocky Reach Relicensing Schedule

2003

- Jan – July** Working Groups continue to refine PDEA. Details and estimated costs are developed for proposed Protection, Mitigation and Enhancement Measures (PMEs).
- Jan 26** PUD distributes “first draft” of PDEA and License Application for comment (60-day review period).
- Mar 27** Deadline for stakeholder comment on PDEA and License Application.
- July – Dec** Working Groups continue to refine PDEA, PME measures, and develop Comprehensive Plans. License Articles and Settlement package developed.
- Oct 21** PUD distributes “second draft” of PDEA for comment (60-day review period). PUD distributes “first draft” comprehensive plans.
- Dec 21** Deadline for stakeholder comment on PDEA and comprehensive plans.

Rocky Reach Relicensing Schedule

2004

June 30

PUD submits “final” PDEA, License Application, and Settlement to FERC.

2004-2005

FERC review.

2006

June 30

FERC to issue new license order (incorporating comprehensive settlement package.)

License Application

- **Contents of the License Application**
 - Executive Summary and Introduction
 - Exhibit A: Description of the Rocky Reach Hydroelectric Project
 - Exhibit B: Rocky Reach Hydroelectric Project Operation
 - Exhibit C: Construction History
 - Exhibit D: Statement of Costs and Financing
 - **Exhibit E: Environmental Report (PDEA)**
 - Exhibit F: Project Drawings
 - Exhibit G: Detailed maps of the Project Area
 - Exhibit H: Supplemental Information (ie: efficiency and reliability, short-term and long-term need for power, transmission system impacts, etc)

Exhibit E

Environmental Report

- Sections of the Preliminary Draft Environmental Assessment
 - 1.0 Application
 - 2.0 Purpose and Need for Action
 - 3.0 Proposed Action and Alternatives
 - 4.0 Consultation and Compliance
 - **5.0 Environmental Analysis**
 - 6.0 Developmental Analysis
 - 7.0 Comprehensive Development and Recommended Alternative
 - 8.0 Consistency with Comprehensive Plans
 - 9.0 Finding of No Significant Impact
 - 10.0 Literature Cited
 - 11.0 List of Preparers
 - 12.0 Distribution List

Section 5: Environmental Analysis

Section 5.3, *Proposed Action and Action Alternatives*, provides an overview of each resource area.

Each resource area is organized as follows:

a. Affected Environment

- Background section discussing the relevant historical and current information including how the project is operated today.

b. Environmental Impacts and Recommendations

- Discusses issues of concern identified by the working groups.
- Discusses studies conducted to address the issues, focusing on the study conclusions.
- Discusses recommended PME measures, including additional studies, management plan development, and/or monitoring.
- **Our Analysis:** This section is in effect FERC's comments on whether or not the applicant has adequately addressed the issues of concern, including FERC's assessment of whether the PME measures are sufficient to address the issues.

c. Unavoidable Adverse Impacts

- Any unavoidable impacts are identified and discussed.

Preliminary Draft Environmental Assessment

- **Considers the following resource areas:**
 - **Geological and Soil**
 - **Water Resources (Water Quality and Quantity)**
 - **Fisheries Resources**
 - **Terrestrial and Wildlife Resources**
 - **Cultural Resources**
 - **Recreation Resources**
 - **Socioeconomics**
 - **Land Use**
 - **Aesthetics**

Geological and Soil Resources

Preliminary Draft Environmental Assessment

- Section 5.3.1
Geological and Soil Resources (page 20)

Geological and Soil Resources

Studies

- Shoreline Erosion Inventory
- Tributary Backwater Analysis

Geological and Soil Resources

Analysis

- **Shaped by volcanoes and glaciers**
- **Resulting landforms:**
 - Two sides of valley don't always match
 - Steep-sided valley with underfit stream
 - Alluvial terraces
 - Alluvial fans
- **Influence of Rocky Reach Project**
 - Appearance of shoreline
 - Shoreline erosion
 - Backwater effect

Geological and Soil Resources

Proposal Measures

- No action needed associated with sedimentation.
- Easements relieve the Project of responsibility for erosion

Water Resources

Preliminary Draft Environmental Assessment

- **Section 5.3.2**
 - **Water Use and Quantity (page 27)**
 - **Water Quality (page 29)**

Water Resources

Studies

- **Water Quality Monitoring**
- **Water Temperature Modeling**
- **Total Dissolved Gas (TDG) Biological Effects**
- **Near-Field Effects of TDG Entrainment**

Water Resources

Analysis

- **Project Waters meet Water Quality Standards on all but two parameters**
- **Project Waters are, at times, warmer than criteria for temperature – the project has a very small influence on temperature**
- **Project Affects Total Dissolved Gas when spilling**
- **No Gas Bubble Trauma in Fish or Invertebrates living in tailrace at TDG <125%**

Water Resources

Proposed Measures

- **Total Dissolved Gas (TDG) Actions**
 - **Monitoring Plans and Schedule for Compliance**
 - **Near-Field Effects of Operations on TDG (WES Study)**
 - **Literature Review and Assessment of TDG abatement technologies**
 - **Participation in TMDL (Total Maximum Daily Load) and Summary Implementation Strategy**

Water Resources

Proposed Measures

- **Temperature Actions**
 - Participation in development of TMDL for Columbia and Lower Snake River
 - EPA model analysis shows Rocky Reach Project has very low effect on temperature – existence of reservoir is the only identified thermal effect
 - TMDL will set thermal load allocation for project
 - No feasible actions identified for reducing thermal effects of Rocky Reach Project

Natural Resources

Preliminary Draft Environmental Assessment

- **Section 5.3.3**
 - **Fisheries Resources (page 57)**
- **Section 5.3.4**
 - **Terrestrial and Wildlife Resources (page 80)**

Fisheries Resources

Studies

- Hatchery Facilities Evaluation
- White Sturgeon Investigation
- Literature Investigations
 - Pacific lamprey; Large woody debris; Sportsmen's access; Predator effects on anadromous fish; Sediment dynamics; Effects of pool fluctuations
- Bull Trout Investigation
- Aquatic Habitat Mapping Survey
- Benthic Analysis
- Creel Census
- Fish Presence and Habitat Use Survey

Fisheries Resources

Analysis/Proposed Measures

- **Habitat Conservation Plan**
- **White Sturgeon Management Plan**
- **Bull Trout Management Plan**
- **Pacific Lamprey Monitoring and Management Plan**

Habitat Conservation Plan (HCP)

- An HCP for anadromous fish has been developed by Chelan PUD, federal and state agencies and tribes. The plan commits Chelan PUD to a 50-year program to ensure that its hydroelectric projects have “no-net-impact” on mid-Columbia salmon and steelhead runs.
- The HCP addresses spring chinook, summer/fall chinook, steelhead, sockeye, and coho.
- The HCP will be incorporated into the existing license for Rocky Reach in 2003. The signatories agreed to support the HCP as the relicensing terms and conditions for salmon and steelhead.

White Sturgeon Management Plan

Background:

- Total numbers of white sturgeon in the project area are presumed to be low. Carrying capacity is unknown.
- White sturgeon rarely pass upstream through fish passage facilities.

Proposed Measures:

- Participate in development and implementation of a Rocky Reach management plan for white sturgeon. The primary goal of the plan will be to achieve a sustained population within the Project area.
- Participate in a mid-Columbia white sturgeon team
- Implement studies needed for making management decisions.
- If necessary, provide funding for hatchery or other types of supplementation.
- Implement a long-term monitoring plan.

Bull Trout Management Plan

Background:

- **Project factors that could impact bull trout include upstream and downstream passage, entrainment, gas supersaturation, water level fluctuations, and temperature.**
- **Data collected in 2001-2002 did not identify specific operations of hydroelectric facilities as having negatively affected the survival of adult bull trout.**

Proposed Measures:

- **Develop and implement a bull trout management plan to enhance bull trout populations affected by Project operations.**
- **Operate fish passage facilities in accordance with criteria for anadromous salmonids and compatible with bull trout migration guidelines and objectives;**
- **Participate in implementation of the USFWS bull trout recovery plan.**
- **Continued studies, including research, monitoring, and evaluation, to assess the status of the existing population and Project impacts;**
- **Bull trout supplementation, habitat improvements, or other potential mitigation offsets, after project impacts are quantified;**
- **Development of an interim plan, based on existing and new data, until the USFWS recovery plan is finalized.**

Pacific Lamprey Monitoring and Management Plan

Background:

- It has been documented that dams may impede passage of juvenile and adult lamprey.
- Little is known about specific passage issues at Rocky Reach
- Additional studies are needed to assess the impact of the Project to Pacific lamprey.

Proposed Measures:

- In order to determine if, and to what extent, the Rocky Reach Project affects Pacific lamprey, Chelan PUD shall develop and implement a lamprey monitoring plan.
- Implement lamprey monitoring studies to identify specific Project effects to lamprey passage.
- Where appropriate, modifications to gratings and orifices at upstream passage facilities where shown necessary to provide lamprey passage at Rocky Reach.

Terrestrial and Wildlife Resources

Studies

- Mule Deer Mortality
- RTE Wildlife Survey and Cover-Type Mapping
- RTE Plants

Analysis/Proposed Measures

- Wildlife Habitat Plan
- RTE Plan Management Plan

Wildlife Habitat Plan

Background:

- The impact of Rocky Reach on wildlife habitats and populations is minimal.
- Wildlife habitat surveys and mapping were completed to identify important wildlife species and habitats in the project area.
- A Mule Deer Mortality Study identified and prioritized areas of critical habitat on mitigation lands adjacent to the Rocky Reach Project area.

Proposed Measures:

- Develop and implement a Wildlife Habitat Plan to address project affects to wildlife and terrestrial habitat.
- Provide funding and/or resources to achieve the following goals:
 - restore and/or increase habitat and provide maintenance for key indicator wildlife species;
 - restore and/or improve ecological quality and diversity; and
 - provide for public use compatible with the ecological quality, diversity, and carrying capacity for key wildlife species goals.

RTE Plant Management Plan

Background:

- There are several populations of rare, threatened, or endangered plants adjacent to the Rocky Reach Project that may be affected by project operations.

Proposed Measures:

- Develop a RTE plant management plan to address Project impacts to RTE plant populations.
- Develop and implement a *Spiranthes diluvialis* monitoring and management plan in conjunction with a USFWS recovery plan.
- Implement an invasive weed control program in or around RTE populations.
- Make efforts to acquire conservation easements on private lands to protect RTE species.
- Avoid RTE populations during project activities such as new construction, weed spraying, etc.
- Periodic RTE population monitoring.
- Examine pool fluctuation impacts on existing RTE populations.

Cultural Resources

Preliminary Draft Environmental Assessment

- Section 5.3.5
 - Cultural Resources (page 107)

Cultural Resources

Studies

- Cultural Resources Inventory
- Traditional Cultural Properties

Analysis/Proposed Measures

- Historic Properties Management Plan

Historic Properties Management Plan

Background:

- A cultural resources inventory has been completed for the Rocky Reach project area.
- Potential effects to historic properties include erosion, looting, and other ground disturbing activities such as construction of parks, roads, etc.

Proposed Measure(s):

- Chelan PUD has developed a Historic Properties Management Plan (HPMP) to ensure that continued Project operation will not adversely affect the National Register-eligible historic properties currently identified within the APE.

Social Resources

Preliminary Draft Environmental Assessment

- **Section 5.3.6**
 - Recreation Resources (page 113)
- **Section 5.3.7**
 - Socioeconomic (page 129)
- **Section 5.3.8**
 - Land Use (page 133)
- **Section 5.3.9**
 - Aesthetics (page 138)

Recreation Resources

Studies

- Recreation Needs and Forecast and Analysis
- Recreational Use Assessment Study
- Recreation Resources Inventory Summary

Recreation Resources

Analysis

- **Background:**
 - PUD has ongoing commitment to existing parks;
 - Recreation surveys convey high ratings for parks, although older parks need infrastructure repair, upgrades and/or enhancements;
 - Potential for additional campsites, especially RV and group sites during peak-season;
 - Potential for additional boat docks, especially short-term moorage;
 - Federal, state, and local studies indicate future demands for trails, picnic areas, beach and boating access, natural areas, water viewpoints, and sports fields.

Recreation Resources

Proposed Measures

- **Recreation Resources Management Plan:**
 - Operation and management of existing PUD-owned park facilities, including upgrades and enhancements;
 - Entiat community waterfront planning;
 - Nature trails;
 - Community oriented trails;
 - Community recreation fund;
 - Recreation resources monitoring and evaluation program.

Socioeconomic

Studies

- **Socioeconomics Study**

Analysis and Proposed Measures

- **Background:**
 - **Communities most affected by Rocky Reach Dam include Entiat and Orondo. Impacted Entiat and Orondo community members and businesses were financially compensated at time of construction. Ongoing impacts are being evaluated through the relicensing process.**
 - **There are local and regional benefits from Rocky Reach Dam, including low cost power (an attraction for industry), reservoir level consistency for agriculture, and benefits from tourism and recreational opportunities.**
- **No specific socioeconomic measures were proposed by any stakeholder at the time of printing of the “first draft” PDEA. Discussions related to socioeconomic impacts will continue throughout the relicensing process.**

Land Use

Studies

- **Project Lands Management**

Analysis/Proposed Measures

- **Background:**
 - Federal, state and local management plans exist along Project reservoir;
 - Chelan PUD owns approx. 100 acres of land within the project area (1,345 acres total);
 - Majority of PUD-owned lands included in parks. In addition, Chelan PUD owns approx. 22 acres of shoreline in Entiat (non-park related).
 - Summary of applicable federal, state and local management plans contained in Project Lands Management Report.
- PUD is working with Entiat to complete a land-use and community waterfront plan which will be incorporated into the “second draft” PDEA.
- Chelan PUD proposes to continue current permitting practices, and tracking and assessing land uses within the Project boundary.

Aesthetics

Studies

- No studies were requested or conducted

Analysis/Proposed Measures

- Background: Assessing aesthetics through relicensing
 - Describe aesthetic character of lands and waters affected by proposed project facilities;
 - Describe any anticipated impacts on aesthetics from protection, mitigation and enhancement proposals;
 - Describe aesthetic character of project facilities.
- Aesthetics related to Project features were assessed in the PDEA.
- No specific aesthetic measures were proposed by any stakeholder at the time of printing of the “first draft” PDEA.
- Aesthetic resources will continue to be evaluated throughout the relicensing process as PME projects are developed.

Recap of Rocky Reach Relicensing Schedule

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The Next 50 Years

- **License Term**
 - What it means;
 - Why it is important;
 - How it affects what we do.
- **Future Opportunities**
 - **Working with Chelan PUD**
 - **Advisory Committees**
 - **Local Relationships and Partnerships**