
RECREATION RESOURCES INVENTORY

Final

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

January 15, 2000



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

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SECTION 1: INTRODUCTION

1.1 Project Location

The Rocky Reach Project is located approximately seven miles north of the city of Wenatchee on the Columbia River in mid-Washington State. The dam is 215 river miles below the Canadian border and 473 river miles above the mouth of the Columbia at Astoria, Oregon.

1.2 The Columbia River

Rocky Reach Dam is located in Chelan County in north central Washington. Lake Entiat, the Rocky Reach Project reservoir, extends upriver 43 miles (to Wells Dam) and has a surface area of approximately 9,100 acres. The reservoir contains 36,400 acre feet of usable storage.

The drainage area of the project at the dam is about 90,000 square miles. The watershed lies east of the Cascade Mountains and West of the Rocky Mountains, consisting of parts of Washington, Idaho, Montana, and British Columbia. The normal headwater elevation is 707 feet above sea level. The normal tailwater elevation is 614.7 feet above sea level. The average annual minimum water temperature of 34 degrees Fahrenheit normally occurs during the month of February. The average annual maximum water temperature of 65°F occurs during the months of August and September.

1.3 Physical setting

The state of Washington encompasses a wide range of geographic diversity, from the marine influenced ocean shores and the Puget Sound, over the rugged Cascade Mountain Range to the rolling hills of central Washington, to the ancient mountain ranges of north central and eastern Washington. The Rocky Reach Project is located on the Columbia River between two significantly different physiographic areas. In the Cascade Mountains to the west, a metamorphosed sedimentary, volcanic, and granitic rock predominates. On the Columbia River Plateau to the east, bedrock is covered by vast, thick layers of basalt. The vegetation ranges from forest and alpine meadows in the Cascades, down to the fertile, irrigated valleys near the Columbia and back up to sparsely vegetated arid plateaus to the east.

1.4 Climate

The climate in the vicinity of the Rocky Reach Project is the semi-arid type, which is typical of eastern Washington. There is a seasonal range of temperatures in the area with winter averaging about 25°F and summer about 75°F. Spring and Fall temperatures average 50°F. Extreme temperatures can approach -30°F in winter and 110°F in summer. The precipitation is generally low with an annual average of about 10 inches, the bulk of which falls between October and March. There are usually no more than 8 to 15 inches of snow on the ground.

1.5 Regional Economy

The economy of the north central Washington region encompassing Chelan and Douglas Counties is based primarily on agriculture. Chelan County provides 80 percent of the jobs in the two-county area and contains 75 percent of the total number of employers. Apples, pears, cherries, and other fruits are important crops in the Columbia River basin. The region's economy is also supported by other types of agriculture (wheat, hay, potatoes) retail trades, services, manufacturing, recreation and tourism.

1.6 Regional Population

The region is sparsely populated. In 1997, the population of Chelan County was 57,854 people; Douglas County, 31,054 people; and the population of the entire state of Washington, 5.4 million people. The largest community on the Rocky Reach reservoir is the city of Entiat, with a 1997 estimated population of 801. The cities of Wenatchee (1997 population estimate of 25,160) and East Wenatchee (1997 population estimate of 5,245) are located seven miles south of Rocky Reach Dam.

1.7 Current Land Use Concept

The Columbia River valley surrounding the Rocky Reach Reservoir is a wide canyon characterized by basalt cliffs and exposed rock outcroppings. The limited valley is generally rural in nature. The city of Entiat and the communities of Chelan Falls and Orondo are located along the reservoir. Project boundary encroachment includes two sanitary sewer outfalls, storm water outfalls, irrigation withdrawals, and recreational development that is part of Chelan PUD's existing recreation plan.

Within the project boundary, agricultural uses, recreational sites developed by Chelan PUD, and some residential lands surround approximately half the reservoir. Agricultural uses consist primarily of fruit orchards and some pasture lands. Irrigation pumps and pumphouses to withdraw water from the Columbia River are often located on agricultural lands. Recreation sites provide for swimming, boating, fishing, personal watercraft, camping, picnicking, water-skiing, and other recreational uses. Recreational use generated at these sites is intensive during the summer season, Memorial Day through Labor Day.

The remainder of the land surrounding the reservoir is undeveloped. These lands can be characterized as drylands. They include shrub steppe and grasslands vegetation with patches of exposed rock. Much of the undeveloped shoreline lies in areas where the reservoir is in close proximity to a small, private railroad on the westerly side and to State Routes 97 (westerly) and 97A (easterly). Narrow strips of riparian vegetation, including wetland areas, may be present along those areas of the reservoir where the shoreline slopes are relatively gentle.

Ownership of lands outside and/or adjacent to the project boundary include State Department of Natural Resources, State Department of Fish and Wildlife, State Parks and Recreation Commission, USDA Forest Service, Bureau of Land Management, Chelan PUD, Railroad, State Department of Transportation, City of Entiat, and private.

1.8 History of Recreational Development

Rocky Reach Project Recreation Planning History

In 1975, the Chelan PUD filed the Exhibit R Recreation Plan for the Rocky Reach Hydroelectric Power Project with the FERC. The plan was approved by the FERC in 1976.

In 1990, during a scheduled inspection of the Rocky Reach Project, the FERC requested that Chelan PUD file a revised Exhibit R and schedules for the completion of recreational facilities development proposed in the original Recreation Plan. In 1991, Chelan PUD responded to this request by filing the Report on the Status of the Rocky Reach Exhibit R Recreation Plan and Request for Revisions of the Recreation Plan. This report was approved by the FERC in 1993.

Rocky Reach Dam Site

The Rocky Reach Dam was dedicated in public ceremonies on June 20, 1963. That year the four-story Public Information and Tour Center opened and nearly 200,000 people visited the landscaped grounds, fish viewing rooms, Interpretive History Gallery and information center.

The addition of a second picnic shelter, restroom and parking facilities was opened for public use in mid-summer, 1993. The park continues to be a popular stopping point for the traveling public and area residents.

Orondo Park

Orondo Park, located on Lake Entiat behind Rocky Reach Dam, was one of the first formal parks developed at the Project. The Port of Douglas County first developed this park in 1974 and Chelan PUD, through its recreation plan (Exhibit R), acquired additional lands adjacent to the existing park to expand the existing facilities. Completion of the expanded park occurred in the summer of 1980. The facilities completed by Chelan PUD include irrigated lawn areas, added parking, a gazebo and some improvements to the swimming area. Prior to that, facilities within the park consisted of boat launching sites, day use area, restroom and parking areas.

Entiat Park

Entiat Park redevelopment and expansion was completed in 1978 and was the first recreation site developed by Chelan PUD. The park redevelopment and the expanded area were constructed by Chelan PUD as part of the recreation plan "Exhibit R" for the Rocky Reach Hydroelectric Project. The redevelopment and expansion joined together two existing community parks; Silico Saska and Will Risk Memorial Park. Park development provided for the improvement and expansion of recreational facilities along approximately 4,000 feet of shoreline and included a day use picnic area, restroom facilities, parking lot area, boat launch and boat handling facilities along with overnight camping. Entiat Park was originally opened to the public from May through September. However, beginning in 1991, its schedule expanded to remain open year around with only partial closures at certain times of the year.

Construction at Entiat Park began early in the summer of 1994 to reconfigure the parks two entrances into one. In 1994 the entrance to the South was designated as the main entrance.

Lincoln Rock State Park

Lincoln Rock State Park opened to the public in 1981. Expansion of the park began in 1986, was completed in 1987 and a dedication ceremony was held on September 16, 1987. The original park and the expanded area were constructed by Chelan PUD as part of the "Exhibit R" recreation plan for the Rocky Reach Hydroelectric Project.

The park has been an extremely popular facility for both local citizens and out of town visitors. The park expansion increased the developed area at the park from approximately 17 acres to nearly 60 acres. Two new camp loops were constructed, which added 67 sites to the original 27 sites for a total of 94 campsites at the park. The added camp loops feature full and partial hookups for recreational vehicles. Other park facilities include three picnic shelters, five restrooms, outdoor activity courts, swim area, boat launching and docking facilities, and a multi-use play area.

Daroga Park

The park was constructed by Chelan PUD as part of the "Exhibit R" recreation plan for the Rocky Reach Hydroelectric Project. The Park opened to the public in April of 1990 with a dedication program held September 20, 1990.

The park's 140 acres offer facilities consisting of a camp loop with 25 camping units, 17 hike-in or boat-in camp units, and one large group camp area with a capacity of 50 camping units for a total of 92 units to accommodate the public. Partial hookups are provided for recreational vehicles. Other park facilities include two picnic shelters, four restrooms, outdoor activity courts, multi-purpose sports field, shoreline trails, large landscaped day use areas, wind surfing beach area, swim area, boat launching and docking facilities, parking lot facilities, a dump-lift station for recreational vehicles and boats, and site utilities (including domestic and irrigation water systems, power, and sewage facilities).

Chelan PUD opened bids for a Group Camp Expansion at Daroga Park on August 18, 1993. The expansion Project consisted of an additional four acres of landscaping, one restroom, one picnic shelter, and additional parking. Construction of the expansion Project began in October, 1993 and was completed in the summer of 1994.

Chelan Falls/Beebe Bridge Parks

These parks were constructed by Chelan PUD as part of the "Exhibit R" recreation plan for the Rocky Reach Hydroelectric Project. Chelan PUD opened bids for this Project on December 13, 1990 and construction of the Project began in February 1991. Chelan Falls Park was opened to the public in early June of 1993 and Beebe Bridge Park opened to the public early in July of 1993. Both parks were formally dedicated by Chelan PUD's Commission and members of the community on August 20, 1993.

Chelan Falls Park:

The development of this site provides a boat ramp, a boat dock, an extensive day use picnic area, restrooms, and irrigated landscaping.

Beebe Bridge Park:

The development of this site provides one loop of overnight camping (27 units), contact station, restrooms, guest parking, day use and picnic facilities, swim beach, boat ramp and boat docks, and irrigated landscaping. In 1994 an eleven-acre expansion was begun at Beebe Bridge and includes 27 additional overnight campsites. This Project was completed in 1995.

1.9 Current Recreational Development

Public access to Rocky Reach Project lands and waters is widely available. Recreation facilities located within or immediately adjacent to the Rocky Reach Reservoir include the following:

Rocky Reach Dam Recreation Facilities and Visitor Center

This 38-acre park site, located on the southwest shoreline at the dam, includes numerous recreation facilities, a visitors center, and museum. Recreation facilities include two picnic shelters, picnic tables, formal gardens, playground equipment, and interpretive displays. There is a primitive boat launch located approximately a half mile downstream of the dam on the west bank, and a primitive fisherman's access located approximately one-quarter mile downstream on the east bank of the river. This site is owned and operated by Chelan PUD.

Lincoln Rock State Park

Lincoln Rock State Park is a 60-acre park located on the east shore of the Rocky Reach Reservoir just above Rocky Reach Dam. Recreation facilities include a three-lane boat launch, six boat tie-up docks, swim beach, restrooms with showers, picnic tables, three picnic shelters, amphitheater, playground equipment, jogging trails, athletic fields and courts, RV and tent camp sites, RV dump station, and a concession building. Lincoln Rock State Park is owned by Chelan PUD and operated and maintained under a cooperative agreement with the Washington State Parks and Recreation Commission.

Orondo Park

Orondo Park is a five-acre park located on the east shore of the Rocky Reach Reservoir approximately two miles north of the community of Orondo. Recreation facilities include a one-lane boat launch, marina, three boat tie-up docks, overnight moorage, swim beach, restrooms with showers, picnic tables and a picnic shelter, playground equipment, and tent and RV camp sites. The park is jointly owned by Chelan PUD and the Port of Douglas County. The Port of Douglas County is responsible for managing Orondo Park.

Entiat Park

Entiat Park is a 40-acre park located on the west shore of Rocky Reach Reservoir in the City of Entiat north of the Entiat River. Recreation facilities at Entiat Park include a one-lane boat launch, two boat tie-up docks, swim beach, restrooms with showers, a museum, picnic tables and a picnic shelter, playground equipment, RV and tent campsites, and a RV dump station. The park is jointly owned in part by Chelan PUD and the City of Entiat. The park is managed by the City of Entiat's Park & Recreation Department.

Daroga State Park

Daroga State Park is a 140-acre park located on the east shore of the Rocky Reach Reservoir seven miles north of Orondo. Recreation facilities include a two-lane boat launch, three boat tie-up docks, swim beach, restrooms with showers, picnic tables and picnic shelters, playground equipment, jogging trails, athletic fields and courts, RV and tent campsites, two group camping areas, and a RV dump station. The park is owned by Chelan PUD and operated and maintained under a cooperative agreement with the Washington State Parks and Recreation Commission.

Beebe Bridge Park

Beebe Bridge Park is a 56-acre park located on the east shore of the Rocky Reach Reservoir just south of the US Highway 97 Beebe Bridge. Beebe Bridge Park is approximately two miles east of the City of Chelan and 32 miles north of Wenatchee. Recreation facilities include a two-lane boat launch, a boat tie-up dock, swim beach, picnic tables and a picnic shelter, restrooms with showers, playground equipment, athletic fields and courts, RV and tent campsites, a group camping area, and a RV dump station. The park is owned and operated by Chelan PUD.

Chelan Falls Park

Chelan Falls Park is a 53-acre park on the west shore of the Rocky Reach Reservoir and is located in the community of Chelan Falls, just downstream from the mouth of the Chelan River. Recreation facilities include a two-lane boat launch, two boat tie-up docks, two swim beaches, picnic tables and two picnic shelters, restrooms with showers, playground equipment, and athletic fields and courts. The park is owned and operated by Chelan PUD.

1.10 General Description of the Relicensing Process

The Public Utility District No. 1 of Chelan County (Chelan PUD) owns and operates the Rocky Reach Hydroelectric Project (Project). Chelan PUD is permitted to operate the Project according to terms and conditions contained in an existing Federal Energy Regulatory Commission (FERC) license, No. 2145, that was issued on July 12, 1956. On September 1, 1966, the Chelan PUD filed an application with the Federal Power Commission (FPC) to amend the Project license for the addition of four generating units. The FPC, later FERC, issued the license amendment on May 23, 1968. The existing license expires on June 30, 2006.

Chelan PUD intends to seek a new federal license to operate the Rocky Reach Project and has begun preparation for the process referred to as “relicensing.” The FERC relicensing process is based on laws and regulations that require years of extensive planning, including environmental studies, agency consensus and public involvement. The process to obtain a new license has changed considerably since the existing licensee was issued in 1956. The Federal Power Act (FPA) was amended in 1986 by the Electric Consumers Protection Act (ECPA). The amendment requires the FERC, in addition to power and development purposes, to give equal consideration to the purposes of enhancement of fish and wildlife, the protection of recreational opportunities, and the preservation of other aspects of environmental quality.

1.11 Needs Statement

An inventory of all existing recreational resources within the Rocky Reach reservoir area is needed to aid in the development of a comprehensive recreation plan for the project area.

SECTION 2: STUDY GOAL

The Recreation Resources Inventory will assess developed and undeveloped recreational sites located on private and public lands, mitigation lands, lands owned and/or managed by federal, state and local agencies, and lands owned by non-governmental organizations. In addition, the study will assess if there is adequate access to the reservoir from adjacent lands.

Information from the fishery working group's Aquatic Habitat Survey will be reviewed to interpret the impact of milfoil on the recreation resource. (Information from Wildlife working group regarding mitigation lands) A Recreational Use Assessment is also being conducted to assess recreation occurring at existing developed park sites and dispersed uses within the project boundary. Ultimately, the results of the Recreation Resources Inventory will be used in conjunction with these and other related studies to develop a comprehensive recreation plan for Rocky Reach.

SECTION 3: STUDY AREA

The proposed study area is the Rocky Reach Project boundary. The inventory area will include areas impacted by and/or immediately adjacent to the project. As part of this study, the Recreation Working Group has included the following areas located just outside the described Rocky Reach boundary in the recreation inventory: U.S. Forest Service park sites located in the Entiat River Valley, areas of the lower Douglas PUD Wells Dam reservoir (Pateros), and Wenatchee Confluence State Park.

The Rocky Reach boundary is defined by contour lines on each side of the reservoir beginning at elevation 711 feet MSL at the Rocky Reach Dam upstream to the Wells Project tailrace. The boundary varies in elevation along the reservoir and corresponds to areas likely to be impacted by water surface elevation associated with the probably maximum flood (Rocky Reach Project Periodic Safety Inspection Report, 1997). The Rocky Reach Project contains a total of 1,345 acres of land, of which Chelan PUD owns approximately 100 acres, or seven percent.

SECTION 4: METHODOLOGY

Recreational resources will be summarized and used in conjunction with other related studies to formulate a Rocky Reach Comprehensive Recreation Plan for the new license period.

SECTION 5: TASK LIST

Task 1 – Describe detailed descriptions of existing recreational use areas and sites within the project area, as well as, U.S. Forest Service park sites located in the Entiat River Valley, areas of the lower Douglas PUD Wells Dam reservoir (Pateros), and Wenatchee Confluence State Park. Some of this information will be obtained utilizing information and results from the Rocky Reach Recreational Use Assessment.

Task 2 – Develop a description and general overview of other developed and undeveloped recreational use sites and areas, including public and private lands, mitigation lands, railroad properties, lands owned and/or managed by federal, state and local agencies, and lands owned by non-governmental organizations.

Task 3 – Identify and summarize:

- future plans of landowners and/or managing agencies
- identify lands that may be potentially suitable for future recreational development
- physical capacity and description
- type of use
- accessibility and condition
- safety issues
- adequacy and condition of the existing facility
- estimated maintenance and operating costs
- service life and needed repairs

Task 4 – Map the existing recreational facilities to show the location, nature and managing authority of existing recreation facilities, public access areas, undeveloped informal use location, and areas set aside for future recreational development within the study area. Mapping will identify state, federal and Tribal agencies with responsibility for management of recreational resources on the affected land and waters within the study area.

Task 5 – The Fisheries Working Group will document aquatic plant growth within the project area through an Aquatic Habitat Survey. Information collected in this survey will be reviewed by the Recreation Working Group to assess the impact of milfoil on recreational areas and uses within the project boundary. Ultimately, the working group will consider this information when developing a comprehensive recreation plan for Rocky Reach.

Task 6 – Analysis and conclusions from the Wildlife Survey and Mule Deer Mortality Study will be collaboratively reviewed by the Wildlife and Recreation working groups to considered impacts of recreation on wildlife within the Rocky Reach project area, including mitigation lands.

Task 7 – Summary report. All findings will be provided in a summary report.

SECTION 6: ANALYSIS AND REPORTING

All data and mapping will be summarized in the most concise and clear format possible. The final report will contain an executive summary section that can be directly imported into the Draft License Application for the project. Supporting information and maps will be provided in the appendices. All reports should also be provided in electronic format for importing into Soft Solutions and ultimately into the license application. All reports styles should be consistent with Chelan PUD's writing style guidelines (to be provided).

SECTION 7: STAFFING AND EQUIPMENT NEEDS

To be provided by consultant

SECTION 8: SCHEDULE

The study will be completed by August 1, 2000.
The consultant will provide a detailed schedule.

SECTION 9: BUDGET

To be provided by consultant