SOCIOECONOMIC STUDY PLAN

First Draft

ROCKY REACH HYDROELECTRIC PROJECT
FERC Project No. 2145

December 1, 1999

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°F 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 town 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 town 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, jetskiing, 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 lands surrounding the reservoir is undeveloped. These lands can be characterized as dry lands. 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 Land, State Department of Wildlife Land, State Park Land, USDA Forest Service Land, Bureau of Land Management Land, Chelan PUD, Railroad, State Department of Transportation, and private lands.
1.8 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, Lincoln Rock State Park, Orondo Park, Entiat Park, Daroga State Park, Beebe Bridge Park, Chelan Falls Park. A full description of park facilities is located in the Recreation Resources Inventory Study Plan.

1.9 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.

1.10 Needs Statement
The need to assess existing socioeconomic resources of the area and project operations (low-cost power) on those resources was identified by stakeholders during the issue identification phase of relicensing the Rocky Reach Hydroelectric Project. The city of Entiat, located adjacent to the Columbia River within the Rocky Reach Project area, has also requested that the socioeconomic study identify potential opportunities for expansion of existing markets and potential for developing new markets.

SECTION 2: STUDY GOAL

The purpose of the socioeconomic study is to: 1) identify, describe and document factors that affect Project economics, including long term debt, cost of power, and the cost of relicensing; 2) identify, describe and document factors that influence regional and local economics, including industry, agriculture, schools and other public entities, recreation and tourism, and estimate the impact of Project operations on these resources; and 3) identify the potential for expansion of existing markets and the potential for developing new markets.
SECTION 3: STUDY AREA

The proposed study area is the Rocky Reach Project boundary and communities immediately adjacent to the boundary and/or likely to be directly impacted by project operations.

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

A consultant specializing in socioeconomic analyses will conduct the study using commonly accepted economic practices. Methodologies proposed by the consultant will be presented to the Socioeconomic Working Group.

SECTION 5: TASK LIST

Task 1 - Introduction and kick-off meeting. The Socioeconomic Working Group will meet with the consultant to review the goal, objectives and methodologies proposed for the study. The group will decide the most appropriate ways to provide input during the study and will offer suggestions regarding who should be contacted. Members of the working group will provide relevant reports, surveys, contacts and other items that may be useful to the consultant.

Task 2 - Identify, describe and document factors that affect Project economics, including long term debt, cost of power, and the cost of relicensing.

Task 3 – Identify which facilities or activities are directly or indirectly impacted by project operations and evaluate them with respect to a number of variables such as type of use, environmental conditions, scope of services provided, revenues generated, etc. An inventory of relevant facilities and activities will be developed including, but not limited to:

- Industry
- Agriculture
- Schools and Other Public Entities
- Recreation
- Tourism

Task 4 – Identify recreation, tourism and business-related demands in the Entiat area and define current market status and potential market opportunities.
Task 4(a) - The current status of local economy will be defined using following information:

- Population and demographic characteristics
- Income characteristics
- Labor force characteristics
- Employment and unemployment rates
- New construction permits
- Retail sales trends
- Transportation indicators

Task 4(b) - A general overview of the local economy will be developed. The overview will identify, describe and document factors that influence private and commercial development, agriculture, recreation, tourism in the Rocky Reach reservoir and Entiat areas, and:

- Gather population projections for analysis of potential growth in demand of various recreation activities.
- Identify potential impacts of project operations on the city of Entiat.
- Document privilege taxes (and others) paid by Chelan PUD.
- Examine current allocations of privilege taxes by the state to the city of Entiat.
- Assess historical impacts of the Rocky Reach Project on the Entiat economy.

SECTION 6: ANALYSIS AND REPORTING

The final report will contain an executive summary section that can be directly imported into the Draft License Application. All data will be summarized in the most concise and clear format possible. Supporting information and hard data will be provided in the appendices. All reports will be provided in electronic format for importing into Chelan PUD’s database and ultimately into the license application. All reports styles will 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.
A detailed schedule will be provided by the consultant.

SECTION 9: BUDGET

The consultant will provide a detailed budget.