

## **Rocky Reach RTE Wildlife Study Status Report – March 8, 2000**

### **Introduction**

Chelan County Public Utility District (Chelan PUD) owns and operates the Rocky Reach Hydroelectric Project (Project - FERC No. 2145). As part of the relicensing process, Chelan PUD requested that stakeholders identify issues regarding Project operation. An area of concern and interest to the participants was the effect of Project operation on the surrounding terrestrial habitats and the associated wildlife.

### **Project Operation**

The Rocky Reach Hydroelectric Project is located on the Columbia River between river mile (RM) 473.7 (Rocky Reach Dam) and the tailrace of Wells Dam (RM 515.1). Rocky Reach Dam has 12 gated spillways and produces a total peak capacity of approximately 1,287 megawatts of power. The hydraulic capacity of the Rocky Reach Project is 217,000 cfs (Chelan PUD 1991a). The Project has a surface area of approximately 9,100 acres, a gross storage capacity of 382,000 acre-feet, a mean depth of 42 feet, and a shoreline length of approximately 93 miles. Normal operating pool elevation is 707 feet above mean sea level (MSL). Because Rocky Reach is a run-of-river project it has little pondage, no usable storage volume, and must pass inflow on a daily average basis.

The Project setting is characterized by arid to semi-arid conditions with most of the precipitation occurring as snow in winter. The Columbia River is flanked by hills incised by a series of mostly seasonal tributaries (Chelan PUD 1991b); some of these seasonal tributaries contribute to the formation of small wetlands where they are impounded by the adjacent highways. The Entiat River is a perennial tributary. Surrounding the Project reservoir is a mosaic of irrigated orchards, residential and recreational areas, shrub steppe, and riparian habitats.

### **Wildlife Resource Issues**

One of the principle concerns to stakeholders during the issue identification process was the effect of Project operation on the surrounding terrestrial habitats and the associated wildlife, such as small mammals, birds, bats, amphibians, and reptiles. In order to assess the effects of the project, a thorough survey of terrestrial habitats and wildlife species will be conducted. These studies were designed to satisfy agency requests for information and provide the PUD with sufficient data on which to base management decisions, describe wildlife communities, and to assess the overall effects of the project.

The RTE Wildlife Survey and Cover-Type Mapping Study Plan issued by the Chelan County PUD addresses the need to: 1) document and analyze existing wildlife communities in relation to specific cover types that may be influenced by the Project; 2)

document and assess the presence or potential presence of rare, threatened, or endangered species; and 3) update existing cover-type maps and evaluate changes in the structural attributes of these habitats. This information will then be blended with other resource studies and relicensing components to form a comprehensive report that addresses the needs of the resources, stakeholders, and the PUD.

## **Study Area**

The study area for RTE wildlife and cover type mapping includes both riparian and adjacent non-riparian uplands along both banks of the Columbia River between the tail races of Rocky Reach Dam and Wells Dam, and extending approximately 1.3 miles up the Entiat River, a perennial tributary of the Columbia. The proposed study area is the same as was used in the Rocky Reach Pool Raise Study (Ebasco Environmental 1991). The width of the study area varies by location but generally lies between the major roadways on either side of the Columbia River. On the left bank the boundary is Route 97 from Rocky Reach Dam to Beebe Bridge (RM 504.1), except for a section (approximately 8 miles long) north of Daroga State Park where the highway diverges more than a half mile from the river; within the latter area the boundary is defined by elevation contours. North of RM 505 there are no roads along the shoreline; as such the boundary is defined by elevation contours.

On the right bank the proposed study area boundary is the Burlington Northern railroad embankment, which is closely adjacent to Alternate Route 97 from Rocky Reach Dam to the point where the highway diverges toward Lake Chelan (at approximately River Mile [RM] 493.2), and adjacent to Route 97 from Beebe Bridge to Wells Dam. In addition, on both sides of the river, the study area includes all sub-impoundments and wetlands on low ground separated from the river by the highways or railroad but within the area potentially affected by the Project.

The use of these study boundaries is appropriate for the following reasons.

- (1) The area corresponds to the study area used for the proposed Rocky Reach pool raise, a study that had acceptance and prior involvement by the two principal agencies that deal with wildlife issues, WDFW and USFWS; the use of the same boundaries will also allow for direct comparisons of habitat changes since the previous study.
- (2) This area encompasses all of the riparian habitats and wetlands along the river in the reach and extends into adjacent non-riparian habitats; species moving between these areas are likely to be documented.
- (3) Any possible effects of the Project on small mammals, bats, birds, reptiles, and amphibians will be overwhelmingly concentrated in, if not restricted to, this area.
- (4) The adjacent highways likely form a partial barrier to movement for many species, particularly small mammals, reptiles, and amphibians.

**Work Completed**

- Field surveys have been conducted to revise near-shore cover type mapping.
- Preliminary wildlife study sites have been identified by field reconnaissance and review of aerial photographs and cover type maps.
- Bullfrog surveys have been conducted.
- Migratory and wintering bird surveys have been conducted.

**Work Remaining**

- The majority of the field work is scheduled to occur in spring and summer 2000.
- Data analysis.
- Report preparation.