

# Working Together to Protect the Columbia River

## Mid-Columbia River Hydropower Projects



Figure 1: Dams in the Columbia River Basin

### Introduction

The Columbia River is the largest electricity-producing river in the U.S. In fact, the “mighty Columbia” and its tributaries generate nearly half of all dam-created electricity in the United States. Three public utility districts (PUDs) in eastern Washington, with five dams on the Columbia River, generate nearly one-quarter of the power created by the Columbia within Washington State. These PUDs are from Chelan, Grant, and Douglas counties.

In North America, the Columbia River is second only to the Mississippi in flow volume. It receives waters from most of the states of Idaho and Oregon, parts of Canada, and all of eastern Washington. Not surprisingly, the Columbia River is home to some unique fish, including the white sturgeon.

### Problem

While these five dams are a vital source of electricity, they also have some side effects that can be harmful to fish. The dams can produce high levels of total dissolved gas (TDG), increase river temperatures, and change fish habitat. The Endangered Species Act (ESA) is used to protect some salmon. However, other important fish have not been studied or protected.

### Project goals

Federal law requires that these dams must be relicensed every 35 to 50 years. When hydropower projects operators renew their federal licenses, they must show the project will meet Washington State water quality standards, which includes protecting fish.

### Milestones and outcomes

Federal and state agencies, tribes, the PUDs, and other interested parties took part in relicensing these dams. All groups cooperated to identify actions the PUDs could take to reduce or remove negative impacts caused by the dams.

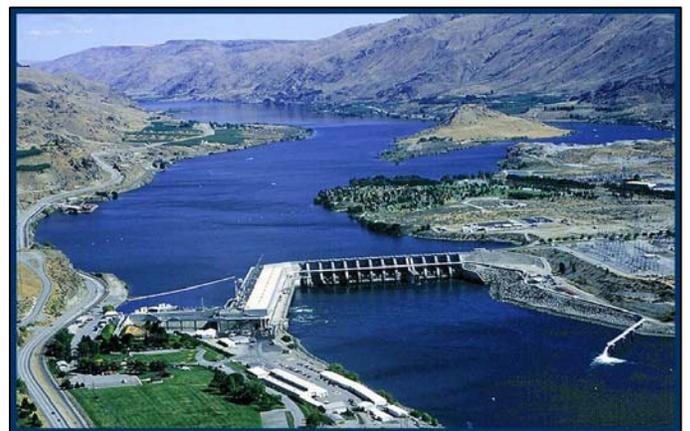


Figure 2: Rocky Reach Dam, on the Columbia River



Water Quality certifications were recently issued to the Chelan County PUD for the Rocky Reach Dam (March 2006) and to the Grant County PUD for Wanapum and Priest Rapids dams (May 2007). Studies have also begun for Douglas County PUD's Wells Dam; a certification should be issued in 2010.



**Figure 3: Juvenile sturgeon (photo by David Gluns, BC Hydro)**

## Project highlights

Results from the many successful relicensing meetings include:

- Participants learned to work together well, and will continue to work together to protect these resources for at least the next 35 to 50 years.
- The primitive-looking white sturgeon, which can reach 19 feet long, will now be studied and supported in the reservoirs.
- Several measures are being implemented to reduce TDG. These measures include new turbines and fish bypass systems, long-term monitoring, and adaptive management.

Participants established safeguards to protect and benefit both water quality and fish habitat in the future.

## Partners

Many groups and individuals contributed to the success of the studies and agreements, using creativity, hard work, and a sense of humor.

Key partners included representatives from these organizations:

- American Rivers
- Chelan County PUD
- Columbia River Inter-Tribal Fish Commission
- Confederated Tribes of the Colville Reservation
- Confederated Tribes of the Umatilla Indian Reservation
- Douglas County PUD
- Grant County PUD
- US Fish and Wildlife Service
- Washington State Attorney General's Office
- Washington State Department of Ecology
- Washington State Department of Fish and Wildlife
- Yakama Nation

## For more information

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