

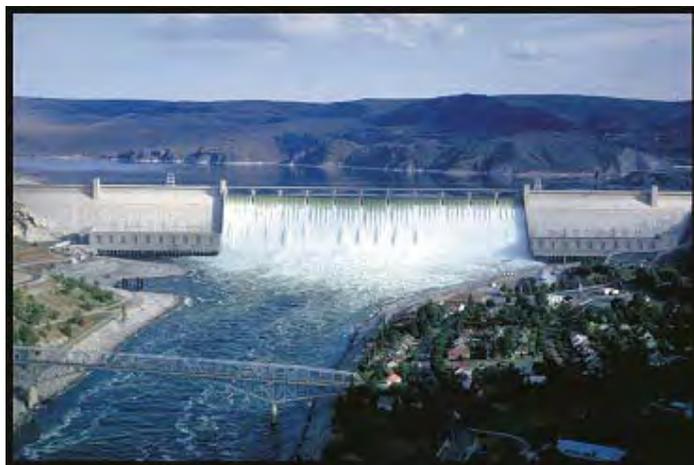


## The Multiple Purposes of the Federal Columbia River Power System

The Federal Columbia River Power System (FCRPS) provides multiple benefits to the citizens of the Pacific Northwest, the U.S. and Canada by

- Generating hydroelectricity
- Providing flood control
- Creating opportunities for recreation
- Supplying irrigation
- Allowing for navigation
- Assuring water supply and water quality
- Protecting Native American cultural resources
- Being operated to facilitate fish passage

The Bonneville Power Administration uses some of the revenue derived from marketing the electricity generated by the dams to fund several public purpose programs including the largest Endangered Species Act (ESA) mitigation program for listed anadromous fish in the U.S.,



myriad habitat restoration projects for fish and wildlife, water transaction programs, energy conservation programs and “green” energy generation from wind and solar sources.

Storage dams and run-of-river dams are the two types of dams in the Columbia River Basin.

Storage dams, such as Grand Coulee Dam, are the crux of the FCRPS. By giving the action agencies (U.S. Army Corps of Engineers, Bureau of Reclamation and BPA) near-complete control over river flows, storage dams make it possible for the Columbia River and its tributaries to be



operated for optimal power generation. They allow water to be strategically released to augment fish migration. By storing runoff for **flood control**, they make disasters such as the 1948 flood that destroyed the city of Vanport, Ore., very unlikely. Run-of-river dams, such as Bonneville Dam, are utilized to generate hydroelectricity and permit navigation. Both types of dams provide irrigation.

FCRPS electricity serves customers in the Northwest and many others thousands of miles away. The **hydroelectricity** generated by the dams is sold at cost-based rates, which helps the Pacific Northwest receive some of the cheapest energy in the U.S. Transmission lines running from the dams interconnect to Canada,



California, Utah and other states. It is the revenue from energy sales that allows the BPA to fund its public purpose programs such as fish and wildlife mitigation.

The **navigation** provided by the FCRPS makes towns as far inland as Richmond, Wash., and Lewiston, Idaho, seaports. The navigable river aids the transportation of wheat, corn, potatoes, apples, grapes and a vast array of other crops that are nourished by the **irrigation** provided by the FCRPS. Columbia River water allows otherwise barren land to be used for agriculture, including some of the Northwest's award winning wineries.

Many municipalities and industries rely on the Columbia River for some of their **water supply**. BPA strives to maintain high **water quality** in the Columbia River, including meeting Clean Water Act standards, to keep the Columbia River an attractive water source that is also suitable for fish and wildlife.

The FCRPS dams are operated under an adaptive management regime that tailors flows to augment **fish passage** according to the specific conditions of each water year. Most of the federal dams have fish passage structures that allow fish to swim through the dams while avoiding its turbines. New fish passage technologies, such as removable spillway weirs,

are being installed at some FCRPS dams to further enhance fish passage. Moreover, the BPA funds numerous **fish and wildlife** mitigation and enhancement programs that help restore wetlands and habitat, and reduce salmon mortality from invasive species and pinnipeds.

Salmon runs are just one of the **recreational** opportunities garnered from the FCRPS. The Columbia River is also a haven for boaters and campers. The Columbia River gorge is renowned throughout the world for its excellent wind surfing and kiteboarding.

The cost-based electricity, irrigation, navigation and recreational opportunities provided by the FCRPS are the backbone of the Northwest's economy. By working with Indian tribes, operating the FCRPS to augment salmon migration, and funding fish and wildlife mitigation programs, BPA strives to make sure that these economic benefits do not come at the expense of fish, wildlife and the vital cultural history of the Northwest. BPA's energy efficiency programs, water transaction programs and funding of wind and solar energy research and deployment will allow the FCRPS to adapt to the environmental and social challenges of the future and guarantee that all of the Northwest's citizens will continue to enjoy the FCRPS' multiple benefits for generations to come.

