

Executive Summary

For Columbia River Basin fish and wildlife, particularly salmon and steelhead, 2001 was a year of extreme contrasts and extreme expenses. It was a year when record runs of salmon and steelhead returned from the Pacific Ocean — nearly double the number of fish that returned in 2000 — only to encounter the second-lowest Columbia River runoff in 73 years of record keeping. It was a year when hydropower dam operations to benefit fish were greatly curtailed compared to a normal water year. It was also a year when a lingering drought knocked 4,000 megawatts out of the region's hydropower supply — nearly enough electricity for four Seattles — and wholesale power prices shot up to ten times normal levels.

In this second annual report to the Governors of Idaho, Montana, Oregon and Washington, the Northwest Power Planning Council provides an update of the Bonneville Power Administration's fish and wildlife expenditures through Fiscal Year 2001. Bonneville is the federal agency that sells the output of 31 federal dams and one non-federal nuclear plant in the Columbia River Basin. Bonneville's expenditures implement the Council's Columbia River Basin Fish and Wildlife Program and also requirements of the 2000 Biological Opinions on hydropower operations issued by the National Marine Fisheries Service, for salmon and steelhead, and by the U.S. Fish and Wildlife Service for bull trout and Kootenai River white sturgeon. These expenditures, detailed later in this report,

include both on-the-ground efforts and river operations that affect hydropower.

In the unusually dry year of 2001, the revenue impacts of river operations were extraordinary. Bonneville estimates power purchases and forgone revenues, respectively — increased costs and reduced revenues, respectively — that result from the annual water storage and river operations requirements adopted to protect fish from the impacts of the Columbia River Basin hydropower system, or to mitigate for those impacts, including protection for threatened and endangered species. For Bonneville, reduced hydropower production can result in both increased costs for power purchases and lost revenues from hydropower sales it could not make.

Because of these non-power requirements, Bonneville at times has to buy power from other suppliers in order to meet its load requirements, or forgoes power sales in order to meet fish operations requirements. Given the power system reliability issues posed by drought and high power market price conditions in 2001, Bonneville determined it could not fully meet fish operations requirements and declared a power system emergency in the spring that lasted for six months.

As a result of the extreme weather and power conditions, Bonneville's estimated power purchases and forgone revenues to offset the power that was not generated due to fish operations

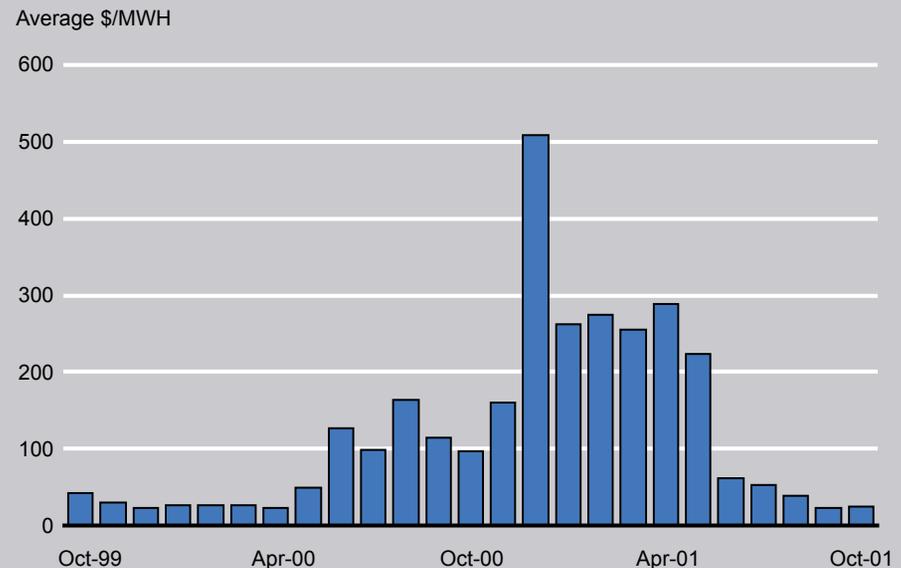
at Columbia and Snake river dams totaled \$1.5 billion in 2001. This one year of costs accounts for 25 percent of Bonneville's total fish and wildlife costs since 1978. Primarily, these costs were due to power purchases in the first several months of the year, when market prices were high and Bonneville sought to meet the April 10 reservoir levels stipulated in the Biological Opinions. For example, in January 2001, the average price during heavy load hours at the Mid Columbia trading hub was \$262 per megawatt-hour. Prices began to decline in May and by December

had reached a more normal \$26 per megawatt-hour, a ten-fold reduction. If energy prices had been at that normal level for the entire year, Bonneville's cost of forgone revenue and power purchases would have been \$122.3 million.

The grand total of Bonneville's fish and wildlife expenditures, 1978 through 2001, now stands at \$6.01 billion. Here is the breakdown:

- \$2.17 billion for power purchases to meet load requirements in response

FIG 1
Dow-Jones
Monthly Average Prices, Mid-Columbia Market
October 1999 - October 2001



to required river operations that reduce hydropower generation.

- \$1.27 billion in forgone revenues. This is the calculated value of hydropower that could not be sold because of required river operations to improve fish survival, such as water spills at the dams.
- \$1.02 billion to implement the Northwest Power Planning Council's Columbia River Basin Fish and Wildlife Program. These expenditures are for on-the-ground efforts such as habitat improvements, habitat purchases, research, fish production, and so on. The Council is working to integrate onsite

mitigation objectives of the 2000 Biological Opinions on hydropower operations into the fish and wildlife program. More information about the Council's program, including details of projects that are being implemented through the program, is available at the Council's website, www.nwcouncil.org.

- \$957.7 million for fixed expenses, primarily debt service on federal bonds issued to pay for capital investments at the dams.
- \$582.9 million to reimburse the Federal Treasury for the power share of other federal agency efforts, primarily those of the U.S. Army

Corps of Engineers, to improve fish and wildlife survival apart from the Council's program. Primarily, this is for fish passage improvements at federal dams and federal hatcheries.

In addition, Bonneville funded a number of "High Priority" projects designed to provide on-the-ground, immediate biological benefits to ESA-listed anadromous fish as well as a number of "Action Plan" projects designed to benefit stocks affected by the declaration of a power emergency in 2001. As of August 2002, \$7.4 million had been contracted for the Action Plan projects and \$10.3 million had been contracted for the High Priority projects.

