

2004 Federal Columbia River Power System Juvenile ByPass Operations Statement of Decision

I. Introduction and Background

BPA has decided to exercise its Federal hydrosystem management authority¹ by working with the U.S. Army Corps of Engineers to implement the Proposed 2004 Federal Columbia River Power System Juvenile Bypass Operations issued June 22, 2004. Specifically, BPA will implement the mitigation offsets described in the proposal. The offsets include: (1) Brownlee Reservoir flow augmentation to increase flows, (2) funding additional predator reductions under the Northern Pikeminnow Management Program, (3) implementing the new Hanford Reach Rearing Protection Agreement, and (4) funding additional habitat improvement and hatchery actions to benefit potentially affected stocks.² Implementing this reduction in summer spill will help BPA be more cost effective in meeting its multiple fish and wildlife obligations. BPA will undertake mitigation offsets to provide that fish that are listed under the Endangered Species Act (ESA),³ as well as non-ESA listed fish, have similar or better survival as they would have had without the summer spill reduction.

BPA has spent the past year exploring whether summer juvenile bypass on the FCRPS can cost less and still be as effective as summer spill. In the process of developing the summer spill proposal, BPA and the Corps investigated how to avoid net impacts to all fish potentially benefited by spill while embracing the sound business principle of cost effective mitigation into the management of the FCRPS.

In the process of considering these operational changes to the hydrosystem and offset actions, BPA considered three main areas of legal compliance as being essential to any proposal.

- BPA has balancing requirements in its enabling acts. As has been required since the creation of the agency, BPA decisions have to comport with the 1937 Bonneville Project Act mandate to fulfill its responsibilities using “sound business principles.”⁴ Under the Pacific Northwest Power Planning and Conservation Act of 1980, BPA provides fish and wildlife equitable treatment with the other purposes for which the Federal hydrosystem is managed and operated—such as power and flood

¹ 16 U.S.C. §§ 832, 839b(h)(11)(A), 839d-1.

² See generally, BPA, 2004 Federal Columbia River Power System Juvenile Bypass Operations Supplement Analysis (July 2, 2004).

³ 16 U.S.C. §§ 1531 *et seq.*

⁴ 16 U.S.C. §§ 825s, 838g, 839e(a)(1), 839f(b).

control.⁵ BPA also protects, mitigates, and enhances fish and wildlife affected by the Federal hydro system while ensuring the Pacific Northwest an adequate, efficient, economic, and reliable power supply.⁶

- Any changes in operations would have to comply with the ESA and NOAA Fisheries' 2000 FCRPS Biological Opinion to avoid jeopardy to listed salmon and steelhead.
- BPA must ensure its actions comport with the Federal government's general trust responsibility to Indian tribes and uphold relevant treaties, particularly those with Columbia Basin tribes with rights to fish at usual and accustomed areas.

II. BPA's Northwest Power Act Responsibilities

A. Using Sound Business Principles to Ensure the Pacific Northwest An Adequate, Efficient, Economical and Reliable Power Supply

The Administrator must adhere to "sound business principles"⁷, while striving to encourage "the widest possible use of all electric energy that can be generated and marketed and to provide reasonable outlets therefore."⁸ This compels the Administrator "to run BPA like a business on a sound financial basis."⁹ When attempting to balance environmental and energy considerations, BPA cannot let fish and wildlife protection measures "jeopardize 'an adequate, efficient, economical and reliable power supply.'"¹⁰

As a result of severe drought and the west coast energy crisis, BPA's core power business lost well over \$300 million¹¹ in each of fiscal years 2001 and 2002. In response, BPA established and executed an aggressive plan to raise rates while managing costs. Even with this effort, current power rates are 45% over those in 2001, with interim cost adjustments potentially raising them even higher. These higher rates contributed to the financial difficulties the region lived through the past two years.

Citizens, customers, industry leaders, members of Congress, the four Northwest Governors and other elected officials have repeatedly told BPA that the overall

⁵ 16 U.S.C. § 839b(h)(11)(A)(i).

⁶ 16 U.S.C. §§ 839(2), 839b(h)(5).

⁷ 16 U.S.C. §§ 825s, 838g, 839e(a)(1), 839f(b).

⁸ 16 U.S.C. § 832a(b).

⁹ *Ass'n of Public Agency Customers Inc. v. BPA*, 126 F.3d 1158, 1170-1171 (9th Cir. 1997).

¹⁰ *Northwest Environmental Defense Center v. BPA*, 117 F.3d 1520, 1525 (9th Cir. 1997).

¹¹ Actual net revenues for BPA's Power Business Line were \$-380.5 million in FY 2001 and \$-87.4 million in FY 2002, however after taking into account debt management actions and Statement of Financial Accounting Standards 133, BPA's core power business lost \$-417.8 million in FY 2001 and \$-390.5 million in FY 2002. *See*,

http://www.bpa.gov/corporate/About_BPA/Finance/Q_Review/04/2/3_PBL_Accumulated_NR.pdf

level of power rates and the rate increases have had a significant impact on the Northwest economy and that prudent actions should be taken to reduce rates.

Since 2002, BPA has worked diligently to bring rates down. BPA and the region have undertaken a multi-faceted approach to seeking ways to lower power rates and enhance BPA's financial health. As a part of this approach, BPA:

- a) Launched a "Financial Choices" effort in 2002 to seek regional input on policy choices to mitigate future rate increases and enhance BPA's financial health,
- b) Reduced internal operations costs to below the 2001 level and continued to pursue reductions through an extensive benchmarking effort,
- c) Worked diligently with our generating partners—the Corps, Bureau of Reclamation, and Energy Northwest—to reduce spending and delay investments where it was prudent,
- d) Reduced spending in nearly every major Power Business Line program area and continued to seek the most cost effective ways to meet our objectives in these areas,
- e) Terminated and renegotiated certain power contracts, and used contract flexibility, to reduce costs and increase revenues,
- f) Used extraordinary and one-time cash tools—such as reserve fund free-up—to keep power rates lower than they otherwise would have been,
- g) Launched a regional "Sounding Board" of customers and constituents to review our program costs and seek cost reductions and revenue improvements, and secured over \$100 million in improvements to offset rates,
- h) Secured agreements with Investor-Owned-Utilities resulting in \$200 million in cost reductions and deferrals over the rate period, and
- i) Is currently seeking cost-effective hydro system operations for fish.

The proposed change to summer spill could produce an additional \$18 million to \$28 million in net revenues for fiscal year 2004, in addition to the significant savings yielded by the other measures cited above. These additional revenues would be important to the rate setting decisions this September because they would be firm dollars BPA could count on this year.

Each element, including cost-effective hydro system operations, is an important component to this multifaceted effort to reduce costs and lower rates. Any power net revenue impacts from summer spill reductions will flow directly into accumulated net revenues resulting in less revenue than otherwise would be required to be collected from 2005 rate adjustments.

B. Protecting, Mitigating, and Enhancing Fish and Wildlife

The Northwest Power Act also requires the Administrator to use his authorities to protect, mitigate, and enhance fish and wildlife to the extent affected by the development and operation of the dams from which BPA markets power.¹² The offsets identified in the final proposal, along with BPA's implementation of the Council's program (which is currently budgeted at an average of \$139 million annually for expenses) protect, mitigate, and enhance affected fish and wildlife.¹³

BPA just completed its most recent analysis of the summer spill proposal. With respect to impacts on juvenile fish not listed under ESA, BPA analysis shows that the number of fall chinook and summer chinook juveniles from the Columbia River Basin are expected to increase overall under the proposed spill regime. BPA estimates that the reduced spill operation will result in a loss of 81,350 – 376,700 juveniles relative to full spill. Put in the context of the estimated total run size of approximately 50,000,000 juveniles, this is less than 1%. However, as a result of implementing the Northern pikeminnow and anti-stranding offset measures, our analysis indicates a net benefit overall in the total number of non-listed summer and fall Chinook juveniles. Non-listed juveniles are also expected to benefit from the increased flows from Brownlee in July, though we are not able to quantify this benefit.

Estimated Juvenile Impacts and Offsets for 2004 – Non-Listed Fish

Action	Estimated Impact **	Benefits of Offsets
Proposed summer spill operation	-81,350 to -376,700	
Hanford Reach anti-stranding		+1,094,870 to +1,287,981
Pikeminnow control		+39,252 to +84,549
Total Offsets		+1,134,122 - +1,372,530 **

** Impacts estimate using NOAA's approach. Estimated total run size for non-listed fall chinook is about 50 million juveniles (smolts)

Evaluating impacts of the spill reductions on a stock-specific basis, there are a few stocks that may have relatively small estimated impacts after considering the benefits of those offset actions we can quantify. Again, these stocks will benefit from the additional July discharge from Brownlee as that water flows through the lower river. Our offset plan is targeted to address these remaining stocks by

¹² 16 U.S.C. § 839b(h)(10)(A).

¹³ For a description of the Fish and Wildlife Program and of BPA's many actions and costs to implement this program, please see BPA's Fish and Wildlife Implementation Plan EIS (DOE/EIS – 0312) (2003), especially Chapter 2; the Council's Third Annual Report to the Northwest Governors on Expenditures of the Bonneville Power Administration 1978- 2002 (February 2004) (Council Document 2004-3); and documentation on BPA's Fish and Wildlife website <http://www.efw.bpa.gov/cgi-bin/efw/E/Welcome.cgi>. The Council's program notes that "[a]lthough Bonneville has fish and wildlife responsibilities under both the Endangered Species Act and the Northwest Power Act, in many cases, both responsibilities can be met in the same set of actions." 2000 Fish and Wildlife Program, page 11 (Council doc. 2000-19).

focusing the \$4 million in habitat and hatchery improvements on stocks in the specific tributaries which display shortfalls after accounting for the Hanford Reach anti-stranding and Northern pikeminnow control programs.

C. Equitable Treatment

Under the Northwest Power Act, hydrosystem managers have a duty to exercise their “responsibilities consistent with the purposes of the Act and other applicable laws to adequately protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, affected by such projects or facilities in a manner that provides equitable treatment for such fish and wildlife with the other purposes for which such system and facilities are managed and operated.”¹⁴ Agencies may achieve this balance of power needs with fish and wildlife needs on a system-wide basis.¹⁵

BPA provides equitable treatment by taking many actions that protect, mitigate and enhance fish and wildlife in the Columbia River basin primarily by (1) implementing FCRPS BiOps and (2) taking many operational measures consistent with the Council’s Fish and Wildlife Program.¹⁶

Moreover, BPA, along with the Bureau of Reclamation and the Corps, has built upon these broad system-wide measures by implementing other actions, including:

- (1) Since 1993, the Corps and BPA have made numerous structural changes to the dams to improve fish passage and survival, including spillway flip lips at four dams, extended screens at three, and new juvenile bypass at Bonneville and minimum gap runners. The effect of these efforts has been a decrease in fish passage through turbines, which increases fish survival. The agencies have increased survival further by installing the Corner Collector at Bonneville Dam, the spillway training wall at The Dalles Dam, and removable spillway weirs, one of which has been constructed for Lower Granite Dam, and another is currently being constructed for Ice Harbor Dam.
- (2) On a 50-water-year average basis 8 million-acre feet of flow augmentation is provided to enhance fish passage.
- (3) On a 50-water-year average basis, about 1000 annual average megawatts of energy are not generated—most of which is instead water spilled during the April-through-August migration period to improve fish passage.

¹⁴ 16 U.S.C. § 839b(h)(11)(A)(i); see generally *Confederated Tribes of the Umatilla Indian Res. v. BPA*, 342 F.3d 924 (9th Cir. 2003).

¹⁵ *Northwest Environmental Defense Ctr.*, 117 F.3d at 1533.

¹⁶ The agencies’ annual and 5-year BiOp Implementation Plans, as well as the annual BiOp check in reports contain additional descriptions of actions taken that help ensure fish are treated equitably with power in system operations and management. See, e.g., Corps, Bureau of Reclamation, BPA, *Amendment to the 2004/2004-2008 Implementation Plan for the FCRPS Biological Opinion Remand* (June 2004); Corps, Bureau of Reclamation, BPA, *Endangered Species Act 2003 Progress Report for the FCRPS* (June 2004).

- (4) Controlling predators to save approximately 7 to 12 million smolts per year. This equates to approximately a 5 to 10% increase in juvenile fish survival.

In these ways and others discussed in responses to comments, BPA provides equitable treatment on a system-wide basis for fish compared to the other FCRPS purposes.

III. ESA Compliance

In the FCRPS Action Agencies' Amendment to the 2004/2004-2008 Implementation Plan for the FCRPS Biological Opinion Remand (June 2004), BPA and the Corps have proposed operational adjustments from the Reasonable and Prudent Alternative (RPA) initially recommended.

NOAA issued its findings report on July 1, 2004, and found

that the flow and spill modifications contained in the Amended 2004 IP provide the same or greater biological benefits to Snake River fall chinook salmon as the Opinion's RPA. Hence, the Amended 2004 IP, including the spill and flow modifications, is consistent with the determinations, assumptions, and analyses of the Opinion's RPA when NOAA concluded that it would satisfy the ESA Section 7(a)(2) standards.¹⁷

NOAA's findings fully support BPA implementing the final proposal with the Corps, despite the inherent uncertainty as to the precise effects of the proposal or its offsets. To address the uncertainty, BPA and NOAA took a very conservative approach in their analyses of impacts and offsets by considering a range of possible migration timing and survival impacts. These analyses considered offsets against the high end of the range of impacts. The high end of the range of potential impacts was thus offset by the range of potential offset benefits which were themselves conservatively estimated. In addition, benefits from the enhanced Northern pikeminnow control program were not considered as offsets for the ESA-listed fish in our assessment of the proposal's ability to meet the objective of similar or better benefit.

IV. Tribal Trust and Treaty Responsibilities

The Region's tribes have a variety of federally protected treaty rights, including rights to commercially harvest fall chinook and steelhead in the mainstem Columbia and Snake Rivers and to conduct ceremonial and subsistence harvests on the mainstem and certain tributaries of both. BPA, like all federal agencies, shares in the federal government's general trust responsibility to Indian tribes.¹⁸

¹⁷ NOAA Fisheries, Findings Regarding Adequacy of the FCRPS Action Agencies' 2004 Annual Implementation Plan, p. 9 (July 1, 2004)

¹⁸ See, e.g., Morongo Band of Mission Indians v. Federal Aviation Administration, 161 F.3d 569, 574 (9th Cir. 1998); Skokomish Indian Tribe v. FERC, 121 F.3d 1303, 1308-09 (9th Cir. 1997).

BPA conducted discussions with tribes to assure that their rights and concerns were considered. BPA had extensive contacts with tribal representatives since last fall when serious consideration of a summer spill reduction proposal got underway. BPA has sought and scrutinized tribal views on the spill reduction proposal, has adjusted that proposal in response to those views, and has taken multiple steps to assure that tribal treaty fishing is not adversely affected by the decision.

BPA has gone to great lengths to assure that the net effect of the spill reduction on fish, including those harvested by tribes pursuant to federally protected treaty rights, is similar or better than if spill were not reduced. We do not anticipate any adverse impact to tribal treaty harvest rights. This is a result of both the limited effect on listed and non-listed stocks, as well as offsets specific to non-listed species of particular interest to tribes.

The proposal will likely result in more fish for tribal harvest. For the mixed stock Zone 6 tribal fisheries BPA's analysis shows the offsets increase fish numbers overall. The adverse impacts, if any, are unlikely to be noticed because they are a magnitude smaller than the adverse impacts that large run size and poor market conditions have had on tribal fall chinook fisheries recently.¹⁹

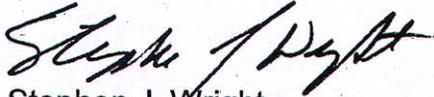
Our most recent analysis shows fish originating from some tributaries will probably not be affected at all. And for fish from other tributaries, our conservative estimates show only minimal impacts, even without considering the benefits of offsets such as Brownlee flow increases and the enhanced Northern pikeminnow management program. These offsets will benefit all affected stocks. Nevertheless, there is a measure of uncertainty in the extent to which a reduction in summer spill will affect specific tributary fishing. Stocks that may be affected by modifications of spill will be the focus of the additional \$4 million BPA will provide for habitat and hatchery offsets in coordination with the Council, tribes and other entities. This will serve to further reduce the likelihood of any adverse affect on tributary fisheries.

¹⁹ Columbia Basin Bulletin, "Fall Chinook Passing Bonneville Break Single Day Record" (Sept. 12, 2003).

V. Decision²⁰

Based on the foregoing—and BPA's NEPA Supplement Analysis dated July 2, 2004—BPA has decided that it can apply sound business principles to more cost effectively avoid jeopardy for fall chinook listed under the ESA, provide for equitable treatment and an economical power supply under the Northwest Power Act, and meet its tribal obligations by implementing the June 22, 2004, Final Proposal for FCRPS Juvenile Bypass Operations, including the mitigation offsets.

Dated July 6, 2004 in Portland, Oregon



Stephen J. Wright
Administrator and Chief Executive Officer

²⁰ This decision document has relied extensively upon hundreds of source records, all of which are being compiled into an administrative record. The record will be available shortly. Key documents that are incorporated by reference into this decision document include but are not limited to the Final Proposal for FCRPS Juvenile Bypass Operations (June 22, 2004), BPA's Quarterly Financial Report (2nd Quarter 2004), the Council's Third Annual Report to the Northwest Governors on Expenditures of the BPA 1978-2002 (February 2004) (Council Doc. 2004-3), BPA's 2004 FCRPS Juvenile Bypass Operations Supplement Analysis (June 6, 2004), NOAA's Findings Report on Action Agencies' 2004/2004-2008 Implementation Plan (July 1, 2004), and the Corps and BPA responses to comments to the various summer spill reduction proposals.