

**American Rivers \* Friends of the Earth\* Idaho Rivers United \* Institute for Fisheries Resources \* National Wildlife Federation \* NW Energy Coalition \* Northwest Sportfishing Industry Association \* Pacific Coast Federation of Fishermen's Associations \* Save Our Wild Salmon \* Sierra Club \* Trout Unlimited**

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Public Affairs  
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**Re: Draft Mainstem Amendments to the Columbia River Basin Fish and Wildlife Programs (Council Doc. 2002-16)**

Dear Mr. Walker:

The following are the official comments of the Save Our Wild Salmon (SOS) Coalition and the undersigned organizations regarding the Draft Mainstem Amendments to the Northwest Power Planning Council's (Council) Columbia River Basin Fish and Wildlife Programs ("Council proposal" or "mainstem amendment proposal"). SOS is a diverse, nationwide coalition of over 50 commercial and sportfishing industry representatives, conservation organizations, clean energy proponents, taxpayer advocates, and businesses working toward a common goal of restoring wild salmon and steelhead to the rivers and streams of the Pacific Northwest. Our organizations respectfully advise the Council not to adopt this proposal, as many of the proposal's recommendations are not supported by the best available science, law, or sound public policy principles.

The Northwest Power Planning Act (NPPA) requires the Council to base its Fish and Wildlife Program on the "best available scientific knowledge," as set forth in section 4(h)(6)(B) of the Act. Further, the Ninth Circuit holds that "the fish and wildlife provisions of the [NPPA] and their legislative history require that a *high degree of deference be given to fishery managers' ... recommendations for program measures.*" *NRIC v. Northwest Power Planning Council*, 35 F.3d 1371, 1388-89 (9<sup>th</sup> Cir. 1994). Emphasis added.

Similarly, the Council and the federal action agencies it advises are required by section 7(a)(2) of the Endangered Species Act (ESA) to use the "best scientific and commercial data available" to ensure that agency actions are not likely to jeopardize listed species. The ESA also requires that "[federal agencies] give the 'highest of priorities' and 'benefit

of the doubt’ to preserving endangered species.” *Sierra Club v. Marsh*, 816 F.2d 1376, 1386 (9<sup>th</sup> Cir. 1987) (citations omitted). When there is a risk that a federal action may harm an endangered species, the ESA requires agencies to err on the side of protecting the species. *See, e.g., Conner v. Buford*, 848 F.2d 1441, 1454 (9<sup>th</sup> Cir. 1988).

As explained below, there are several ways in which the mainstem proposal would run afoul of these and other requirements of the NPPA and the ESA.

## **1. Proposed Changes in the BiOp Flow Regime**

### **A. The ISAB and Federal, State, and Tribal Fish Managers Support Flow Augmentation**

The 2000 Federal Columbia River Power System Biological Opinion (“FCRPS BiOp” or “BiOp”) contains flow targets because it adheres to the prevailing scientific understanding that increased flows improve juvenile salmon survival by increasing their travel time and reducing water temperature, among other beneficial effects. In its mainstem amendment proposal, the Council claims that the flow targets outlined in the BiOp are not necessary to protect and restore ESA-listed salmon and steelhead. This claim is at odds with the best available science and the advice of state, tribal, and federal fish managers.

For instance, the Council’s Independent Scientific Advisory Board (ISAB) has determined that “[f]low augmentation should continue, largely because ... studies show benefits for wild fish and ... a high correlation of flow and survival in a designed study.” ISAB has also determined that the available data demonstrate a strong flow-survival relationship for steelhead and fall chinook salmon. *Review of Lower Snake River Flow Augmentation Studies*, Council Doc. ISAB 2001-5 (April 27, 2001).

Moreover, the final comments on the mainstem amendment proposal submitted by state, federal, and tribal anadromous fish managers (fish managers) make the following key conclusions regarding a flow-survival relationship: 1) a water travel time/survival relationship exists for spring chinook and steelhead originating in the Snake and mid-Columbia rivers; 2) the mainstem amendment proposal’s changes to the BiOp flow program would result in decreased survival for wild fall chinook; 3) “[t]he [BiOp] flow targets appear to represent a minimum needed to maintain the Snake River spring summer chinook populations for average to good ocean conditions and provide inadequate protection for poor ocean conditions”; and 4) the Council’s proposed changes “would likely decrease the SARs [smolt-to-adult ratios] of wild Snake River spring and summer chinook and steelhead.” *Fish Managers’ Final Document*, January 2003, pp. 1-2. [We hereby incorporate the fish managers’ final document by reference.]

As noted by the fish managers, the mainstem amendment proposal appears to rely largely on one document, the *Giorgi Report* (Council Doc. 2002-3), for its rejection of the flow targets supported by the BiOp. The ISAB, however, found that *Giorgi*’s synthesis of existing scientific information on flow augmentation does not establish the lack of a

flow-survival relationship, and in its review of the *Giorgi Report*, the ISAB remained convinced of a flow-survival relationship for steelhead and fall chinook. *Review of Giorgi et al. Report*, Council Doc. ISAB 2002-1 (June 4, 2002), pp. 22-23. The fish managers stated in their final report on the draft mainstem amendments that the Council proposal relies on the *Giorgi Report* largely at the expense of the “recommendations of the fish and wildlife management agencies, scientific support for flow-survival relationships previously summarized in NMFS white papers, or recently peer-reviewed articles on chinook summer migrants.” *Fish Managers’ Final Document*, p. 1. See also Bouwes et al., *Review of Mainstem Passage Strategies in the Columbia River System: Transportation, Spill, and Flow Augmentation*.

The ISAB notes that more data is needed to better understand the effects of flow augmentation. However, the ISAB also “warn[s] against using models in attempts to ‘compensate’ for the absence of critical data.” *Review of Giorgi Report*, p. 18. Even in the absence of such data, the ISAB has stated that “[t]he precautionary principle favors continued use of flow augmentation in conjunction with continuing field experiments.” *Review of Lower Snake River Flow Augmentation Studies*. Thus, in addition to ignoring the best available science, reducing BiOp flow targets would violate the ESA’s requirement to err on the side of protecting endangered species. See *Conner v. Buford*, 848 F.2d 1441, 1454 (9<sup>th</sup> Cir. 1988).

We appreciate that the Council’s rationale for the proposed flow reductions comes in part out of concern for resident fish in upriver reservoirs. But if current reservoir operations are found to have negative impacts on resident fish, the NPPC and ESA require the Council to address these issues in a manner that does not further erode salmon and steelhead recovery efforts – which the Council’s proposed amendments would do. The Council proposal does not properly defer to the advice of the ISAB, which cautions that “the ability to detect a local effect [of flow augmentation] at a storage reservoir or tailwater, even a dramatic one, should not ... be a deciding criterion against flow augmentation to achieve downstream benefits. An intense local effect could influence far fewer fish than a more subtle effect that is exerted over many hundreds of miles downstream and which exposes orders of magnitudes more fish.” *Review of Giorgi Report* at 26.

## **B. The Council Downplays the Extent of the Proposed Flow Reductions**

By eliminating the BiOp’s April 10<sup>th</sup> storage reservoir refill requirement, the Council proposal would severely reduce flows during the biologically crucial juvenile salmon migration. The Council attempts to justify its proposal to reduce flows by contending that it would reduce flows by only a few percent relative to current dam operations. That contention is misleading in three important respects.

First, current dam management frequently fails to meet BiOp flow targets for both the spring and summer, but particularly in the summer months. The inability to meet these flow targets has had a clear detrimental effect on salmon and steelhead. For example, during the drought year of 2001, flow targets were never met on the Columbia, and they

were only met for a few days on the Snake. These extremely low flows resulted in the lowest in-river survival rates for in-reservoir migrating juvenile salmon and steelhead since stocks were listed under the ESA. Even in 2002, a closer-to-average water year, flow targets were consistently missed throughout the migration season in both the Snake and Columbia rivers. Because failing to attain BiOp flow targets has been such a chronic problem for the river managers, the Council's claim that its proposed flow reductions would not have a significant impact is based on an improperly low baseline. Thus, the Council's proposal would further reduce flows that are already regularly failing to meet BiOp flow targets.

Second, as the fish managers point out in their document addressing the mainstem amendment proposal, even the BiOp flow targets would be insufficient to maintain Snake River spring/summer chinook in a period of poor ocean conditions. The Council should be proposing dam operation changes that *increase* the likelihood of meeting the flow targets, not changes that would effectively lock in insufficient flows.

Third, placing the Council's proposed flow reductions in the context of total reductions over the course of a year masks the fact that the reductions would occur at critical times during the salmon migration. From April through August (the peak juvenile salmon migration), the Council's proposal would result in a loss of 1.2 million acre-feet of water relative to the flow targets in the BiOp during an average water year. *Fish and Wildlife Program, Draft Mainstem Amendments Slideshow*, Northwest Power Planning Council (November 1, 2002). In dry years, when the importance of adequate flows is heightened, the Council's proposal would result in even less water available relative to the targets in the BiOp.

For all three of the above reasons, the biological impact of the proposed flow reductions is much more significant than is indicated by the Council proposal states. We urge that the Council's mainstem amendments at a minimum be consistent with the flow targets of the BiOp.

## **2. Proposed Evaluation of the BiOp Spill Regime**

Spilling water through dam spillways has long been relied upon to help juvenile salmon pass through dams relatively safely. According to the fish managers, "[r]outing smolts through spillways at hydroelectric projects in the Columbia and Snake Rivers is generally considered the safest passage strategy, when compared to passage survival through bypass systems and turbine routes." *Fish Managers' Final Comments*, p. 39. Nevertheless, the Council's proposal questions the biological effectiveness of spill and orders a "rigorous evaluation" to determine when, whether, and how much to spill.

The Council's proposal suggests exploring the idea of discarding the BiOp's spill operations if salmon survival can be maintained while more energy is produced and more money generated for the Bonneville Power Administration (BPA). While it may not be objectionable in the abstract for the Council to explore ways for BPA to make more money without increasing the harm to salmon, the potential for achieving these results

appears remote given the strong scientific support for the current spill regime. Moreover, with FCRPS BiOp implementation far behind schedule, the agencies in charge of salmon recovery should be spending their time and resources on actions to better protect salmon rather than figuring out how to generate additional income for BPA.

The fish managers do not back the Council proposal's assertion that "spilling to the maximum gas supersaturation levels of 120 percent may be increasing mortality at some dams when compared to what would occur at lesser volumes of spill." *Mainstem amendment proposal*, p. 25. Rather, the fish managers highlight the effectiveness of spill at increasing salmon survival and note that recent research performed by NMFS indicates that any risk associated with the current BiOp's spill regime is warranted by the fact that it increases juvenile survival by 4 to 6 percent. They also note that there would be minimal risk of reducing survival by spilling up to TDG levels of 125 percent. *Fish managers' final comments*, pp. 4, 40. The Council should follow the advice of the fish managers', to whom the NPPC requires them to defer.

Finally, although the Council's proposal does not recommend immediate changes to the BiOp's spill program, it is possible that the draft mainstem amendment proposal would have the effect of reducing spill at certain projects. For example, the BiOp-recommended spill level at The Dalles Dam is based on a percentage of instant flow (40 percent). *FCRPS BiOp* at 9-89. Similarly, nighttime spill at John Day dam is recommended at 60 percent of instant flow under certain water conditions. *Id.* Thus, eliminating flow augmentation during the spring and summer could have the effect of decreasing spill at these particular projects, which would harm salmon.

### **3. Assessing the Hydropower System Impacts of Fish Operations**

In addition to its mandate to "protect, restore, and enhance" fish and wildlife under the Northwest Power Act, the Council is required to "assure the Pacific Northwest an adequate, efficient, economical, and reliable power supply" 16 U.S.C. § 839b(h)(5). The Council has interpreted this dual mandate in the context of the mainstem amendment proposal to include ensuring "a healthy and financially viable Bonneville Power Administration." *Mainstem amendment proposal*, p. 46. Thus, the Council proposal sets a goal of reducing the cost of fish and wildlife activities to the federal power system. In discussing this goal, the proposal states that the "fish and wildlife program must still assure the region that it will not cause the power system to be inadequate, inefficient, uneconomical, and unreliable." *Mainstem amendment proposal*, p. 50.

We see little evidence that the fish and wildlife program has caused or will cause these undesirable effects. By its own estimates, the Council's proposal would boost BPA's power supply by only 0.4 percent per year. This minimal increase in electricity generation would result in insignificant benefits to residential electricity consumers. It would also, as described above, come at a substantial cost to the health and survival of salmon and steelhead, as well as to the ability of the Council and other federal agencies to meet legal obligations to protect salmon. The Council has not demonstrated that the

small power increase that would result from the mainstem amendment proposal would be necessary to assure the financial stability of BPA or assure an adequate and reliable power system.

In fact the Council's own analysis to date implies the opposite. For example, the Council proposal's Power System Reliability analysis rightly states that the power system impacts of the 2000 Biological Opinion have not in any way made the federal power system inadequate, inefficient, or uneconomical. Then Council Chairman Frank L. Cassidy, Jr. also recently noted in a December 20, 2002 letter to BPA Administrator to Steve Wright regarding fish and wildlife cuts that "Bonneville's financial crisis is not a product of the fish and wildlife program." Similarly, the Council proposal notes that system inadequacies in 2000-2001 were not caused by fish operations, but rather by the failure to develop sufficient resources, and exacerbated by substantial power market volatility. Finally, the Council proposal notes the Northwest is not currently facing a reliability concern, and in the near term "the region is expected to have an adequate, reliable and efficient power supply system." Thus, neither the current fish and wildlife program nor the 2000 Biological Opinion pose a threat to the Council's responsibility to assure an adequate, efficient, economical, and reliable power supply.

We would also like to remind the Council that Northwest Power Act requires the Council to assure an adequate "power" supply, not a "hydropower" supply – a point backed by Ninth Circuit case law. *See NRIC v. Northwest Power Planning Council*, 35 F.3d 1371, 1379, n. 13 (9<sup>th</sup> Cir. 1994). Rather, BPA, the Council and other regional entities have at their disposal a multitude of cost-effective and efficient alternatives to hydropower that will help meet the region's future energy needs affordably while reducing the pressure on the Columbia and Snake rivers to generate electricity. A recent report by the Tellus Institute (see [http://www.nwenergy.org/outreach/Tellus\\_Report.html](http://www.nwenergy.org/outreach/Tellus_Report.html)) identified over 13,000 average megawatts worth of cost effective clean energy from sources such as wind, geothermal, and energy efficiency – enough to meet projected electricity demand in the Northwest through 2020 *and* remove the lower Snake River dams twice over. We urge the Council to look beyond the federal hydrosystem to meet the region's future energy needs.

#### **4. Proposed Changes to the Management of the Fish Passage Center**

The Fish Passage Center (FPC) was established by the Council to help meet the Council's responsibilities under the NPPA, including "complement[ing] the existing and future activities of the Federal and the region's State fish and wildlife agencies and appropriate Indian tribes." NPPA, section 4(h)(6)(A). The Council proposal would have the FPC manager report to the recently established FPC oversight board, which is run by the Council. This would inadvisably continue a recent shift in FPC management responsibilities from the Columbia Basin Fish and Wildlife Authority (CBFWA) to the oversight board. CBFWA is a consensus-based organization composed of federal, tribal, and state fishery managers who represent both upriver and downstream perspectives. The best way to ensure that FPC continues to provide the best available information to

federal agencies, states, and tribes is to have FPC employees and its manager continue reporting to CBFWA rather than reporting to the more political FPC oversight board.

## **5. Juvenile Fish Transportation**

The Council proposal continues to accept juvenile fish transportation via barge and truck as a “transitional” strategy, and endorses BiOp fish transportation strategies. Based on the weight of existing evidence, we believe that transportation should not be relied upon as a long-term recovery tool.

In *Return to the River*, the Independent Scientific Group (ISG) has stated that “[e]ven if all juvenile salmon could be collected for transportation, there is not enough evidence from previous research to suggest that even the minimum survival rates necessary for maintenance of population levels could be achieved, let alone those survival rates necessary for rebuilding of salmon populations.” ISG, *Return to the River* (Council Doc. 2002-12), p. 299. Smolt-to-adult return (SAR) data has shown that SARs for listed stocks have been well below those necessary to achieve survival and recovery, regardless of whether fish were transported or migrated in river – further demonstrating the negligible benefits of transportation. Bouwes, et al., *Review of Mainstem Passage Strategies in the Columbia River System* (March 2002), p. 3. Recent data also indicate that transported fish experience much higher rates of post-hydrosystem mortality than their in-river counterparts, as evidenced by differential delayed mortality (D) value. In some instances, the data suggests that mortality after fish are released from barges is nearly twice as high as that experienced by in-river migrants. *Id.* at p. 7.

Moreover, as the Council rightly notes, significant populations of salmon and steelhead enter the mainstem hydrosystem either below the transportation collector projects altogether, or are not effectively transported at McNary Dam. In-river passage for these fish is the only alternative, and the only way to improve their survival is to improve the condition of the Snake and Columbia rivers.

In sum, while the Council is correct that an interim “spread the risk” strategy is appropriate until river conditions are improved, more flow augmentation, including but not limited to meeting BiOp flow targets, would immediately provide the river conditions necessary to reach the desirable goal of allowing more juvenile salmon to migrate in-river.

## **6. Criteria and Procedures for Emergency Operations**

The Council's request for comments on its mainstem amendments proposal notes:

[T]he region's power system should be adequate and reliable for the next few years ... however, the region faces the possibility in later years of spiraling back into the power supply problems seen in 2001, unless measures are taken to ensure that new resources are added to the regional power supply in a more certain fashion than now seems likely.

The Council then asks whether it should adopt, as part of the mainstem amendments, criteria and procedures for declaring a power system emergency in the future, or in the alternative, address emergency issues as part of the revision of its power plan.

The general issue of power supply adequacy is currently a topic in several forums outside the Council, including Federal Energy Regulatory Commission, Standard Market Design, and Regional Transmission Organization proceedings, and Bonneville's Regional Dialogue. However, the critical connection between adequacy and fish operations, particularly the central question of under which conditions and whose authority, if at all, hydro emergencies may be declared, has not been in the forefront of these discussions. We commend the Council, both in its power supply paper and its Regional Dialogue recommendations to BPA, for beginning to call the region's attention to this issue, and especially for recognizing the "perverse incentive" created by the region's ability to rely on hydro emergencies to rescue itself from poor planning decisions.

Our response to the question of where emergency criteria should be discussed is that it should be dealt with in *both* the Power Planning and the mainstem amendment processes. However, it would be prudent to start that discussion in the mainstem amendment process – for later incorporation into the Council's Power Plan – because it is the working definition of the emergency criteria that will determine what type of resource decisions must be made by the region to ensure an adequate, efficient, economical, and reliable power supply.

We urge the Council, in this amendment process, to forcefully remind the federal agencies that the BiOp's emergency criteria should be very narrowly defined to include only true, physical emergencies. The ability of Bonneville to declare emergencies for financial reasons is indeed a "perverse incentive," as the Council has recognized, and the presence of such an incentive would prevent the region from developing adequate resources to cover drought conditions. Fixing this incentive to lean on the river by barring all but physical emergencies will not only benefit fish, it will also help to ensure reliability and lower power costs, and must be a part of the solution to any power adequacy problems the Northwest would otherwise experience.

## **Conclusion**

In conclusion, if the Council were to adopt its proposed mainstem amendments and fail to curb the expansive use of hydro emergencies, it would run afoul of its obligations under federal law and would undermine its credibility as a protector of the Columbia/Snake Basin's salmon and steelhead. Perhaps most importantly, it would violate the ESA requirement to avoid putting the risk of uncertainty on the backs of listed salmon and steelhead by further weakening the federal recovery efforts required under the FCRPS BiOp. The federal failure to fund and implement the BiOp is already on the national radar screen, and the Council's mainstem proposal, if adopted, would strengthen the arguments of those who are opposed to the Northwest's preferential access to power generated by the federal hydropower system.

Thank you for the opportunity to comment on the mainstem amendment proposal. We strongly urge against its adoption by the Council.

Sincerely,

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