



## Department of Energy

Bonneville Power Administration  
P.O. Box 3621  
Portland, Oregon 97208-3621

October 23, 2015

In reply refer to: LN-7

Mark Fritsch and Dr. Peter Paquet  
Northwest Power and Conservation Council  
851 SW 6th Avenue, Suite 1100  
Portland, OR 97204-1348

Dear Mr. Fritsch and Dr. Paquet:

The Northwest Power and Conservation Council (Council) staff prepared a draft paper to summarize the Wildlife Advisory Committee deliberations and invited committee participants, including the Bonneville Power Administration (BPA), to review and comment on that paper. BPA appreciates that invitation and submits the following comments for consideration as the staff finalizes the paper and prepares a recommendation to the Council. BPA's comments touch on the issue areas covered in the staff paper. In addition, these comments begin with thoughts on the extent of the wildlife mitigation already done and how several long-standing, unresolved issues affect the nature and extent of BPA's duty to mitigate operational impacts.

### **Wildlife mitigation since the 1982 program**

The extent of mitigation done already by the government for the Federal Columbia River Power System (FCRPS) dams should be the starting point for considering how much mitigation is needed to address the dams' operational impacts. Following Council recommendations which began in 1982, BPA has now almost fully addressed all the effects on wildlife from the construction of the FCRPS dams and habitat inundation by their reservoirs. Based on the documentation in the final report by the Wildlife Crediting Forum, and subsequent mitigation work, BPA thinks only a portion of four southern Idaho dams remain in need of construction and inundation mitigation. In other words, of the 29 FCRPS dams covered by the Act's mitigation mandates, the construction and inundation effects from 25 dams are fully mitigated.

As the region continues addressing operational impacts of the FCRPS dams on wildlife, important principles and issues associated with crediting and mitigation responsibilities need further discussion to ensure ratepayers aren't burdened with inappropriate liability or costs.

The region should engage these long-standing issues now because with the imminent conclusion of new construction and inundation mitigation projects, few areas remain where offsets or trade-offs can be made to ensure BPA's customers only pay for measures to deal with adverse impacts caused by the development and operation of the FCRPS. Principles and issues to engage include those that follow.

- The first principle for mitigating operational impacts should be to consider adjustments to operations. The Northwest Power Act supports this principle in that it says the environmental conditions sought for fish and wildlife are “substantially obtainable from management and operation of FCRPS and other power generating facilities on the Columbia River and its tributaries.”<sup>i</sup>
- All habitat gains from FCRPS dam construction should be credited and accounted for before recommending further habitat mitigation efforts. According to the Wildlife Crediting Forum final report, the program notes that constructing FCRPS dams created over 53,663 habitat units.<sup>ii</sup> These habitat gains have yet to be credited or accounted for.
- Habitat protection and enhancement work on project lands owned by the Corps of Engineers and Bureau of Reclamation may benefit wildlife and should be considered prior to recommendations for further mitigation.
- A report prepared by the U.S. Fish and Wildlife Service for the Council in 1991 shows over 50,000 acres of mitigation in the lower Columbia done prior to passage of the Northwest Power Act. In response the Council noted that “[f]urther mitigation, if needed, should be directed toward current dam operations...”<sup>iii</sup> This suggests mitigation not already credited toward construction and inundation impacts could reasonably be credited against operational impacts.

### **Defining the effects of the FCRPS dams**

The Wildlife Advisory Committee spent considerable time trying to define operational and secondary losses. The committee's deliberations revealed that the concept of secondary losses is not well understood or easily defined. Some committee participants considered secondary losses as part of construction and inundation, others considered them part of operational losses, and still others said they were everything else not covered by all of the above. When pressed in committee meetings, the wildlife managers could not demonstrate that they even contemplated the existence of things called secondary losses when the Northwest Power Act was passed, thus suggesting such impacts if they exist are not covered by the Act's mandates.

For these reasons, and those raised by BPA during the committee's deliberations (and attached to this letter), the Council should not reopen the program to add a definition of secondary losses. BPA thinks the program's existing definition of operational losses provides effective guidance without being unnecessarily prescriptive. Moreover, expanding the definition would require amending the program and distract the region from negotiating agreements and doing on-the-ground mitigation.

### **Moving toward negotiated agreements to address operational losses**

The Wildlife Advisory Committee searched for alternative means to help address operational losses. Two broad approaches emerged: negotiated agreements and technical analysis.

The technical analyses available to address operational losses lack the precision and specificity to account for FCRPS' operational effects. According to the program, the hydro system includes 136 hydropower projects.<sup>iv</sup> BPA mitigates 29 of those dams, or about one-fourth of them. The committee didn't find any method of technical analysis that could distinguish between the effects from the FCRPS and the effects from the other 107 dams comprising the Columbia River Basin hydro system. Therefore, any technical analysis examining hydro system operational effects would most likely overstate the impact of the FCRPS.

BPA has already used the mitigation agreement approach for operational effects on wildlife (and some fish) with the states of Oregon and Idaho covering almost half the FCRPS dams. These agreements are not exact templates for other dams, but they offer two ways for successfully addressing operational effects through negotiations. Absent any success facilitating operational loss mitigation with technical assessments, BPA supports an agreement-based approach.

### **Ending the use of the Habitat Evaluation Procedure**

Throughout the entire Wildlife Advisory Committee process not a single participant said they wanted or needed ongoing Habitat Evaluation Procedure (HEP) capacity. Perhaps the HEP is not as integral to the program as it has sometimes seemed.

Indeed, over half the wildlife mitigation done for construction and inundation effects was done with agreements that relied on acres. Those agreements addressed the effects of Dworshak, Hungry Horse, Libby, Green Peter, Dexter, Detroit, Foster, Big Cliff, Hills Creek, Cougar, Lookout Point, and half of Anderson Ranch, Palisades, Black Canyon, and Minidoka. While the Council has adopted habitat units for its preferred metric, program language also recognized acres as a legitimate metric.<sup>v</sup>

Today only mitigation in southern Idaho with two tribes still relies on HEP for new land acquisitions. The tribes and BPA, however, already have alternatives for working without HEP. Keeping HEP capacity in the program is not necessary to continue mitigation in southern Idaho.

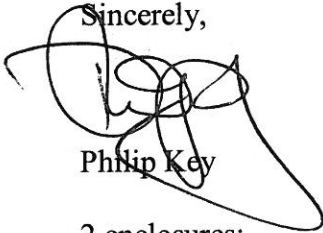
Historic habitat evaluation data has been saved and archived through the Pacific States Marine Fisheries Commission and is available free to the public on the StreamNet database.<sup>vi</sup> HEP reports remain available on BPA's PISCES and Columbia Basin Fish websites. Under these circumstances the program no longer needs to maintain a capacity for additional HEP analysis.

### History of wildlife in the program

Finally, the draft staff paper samples some of the program's history on wildlife mitigation. But that section does not include all of the program guidance that shaped BPA's current wildlife mitigation policies and ongoing long-term agreements—both of which will bear on any resolution of operational impacts. For additional background, especially with regard to the crediting ratio discussion in the staff paper, BPA offers its response to the 2000 program wildlife recommendations.<sup>vii</sup> Excerpts from past programs that have helped guide BPA's wildlife mitigation decisions are also attached separately.

Thank you for the opportunity to participate in the Wildlife Advisory Committee's deliberations. I hope you find these comments on the draft paper helpful.

Sincerely,



Philip Key

2 enclosures:

OpsSecondaryLosses03122015.pdf

Programwildcreduthistory10202015.doc

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<sup>i</sup> 16 U.S.C. § 839(6).

<sup>ii</sup> Wildlife Crediting Forum, REPORT ON FORUM DELIBERATIONS JANUARY 2010-MAY 2011, page 11 (Sept. 2011).

<sup>iii</sup> Council, 1989 WILDLIFE RULE, Table 3 page 11.

<sup>iv</sup> Council, COLUMBIA RIVER BASIN FISH AND WILDLIFE PROGRAM, Appendix E, page 1 (2014).

<sup>v</sup> 2014 PROGRAM, pages 73, 74.

<sup>vi</sup> <http://www.streamnet.org/hep>

<sup>vii</sup> Letter from Stephen Wright, BPA Administrator, to Larry Cassidy, Council Chairman, (Mar. 5, 2002) (BPA's wildlife mitigation crediting policy final decision) <http://efw.bpa.gov/IntegratedFWP/policyframework.aspx>

To: Peter Paquet,  
Council Coordinator for the Wildlife Advisory Committee  
Fr: Philip Key, BPA representative  
Dt: March 12, 2015  
Re: Bonneville comments regarding a definition of operational impacts

The Bonneville Power Administration submits the following suggestions and comments to the Wildlife Advisory Committee for its consideration.

**1. A revised draft definition of operational impacts:**

**Operational Impacts** are the effects caused by power generation operations of the hydroelectric dams in the Columbia River Basin on wildlife that have not been addressed by mitigation for construction and inundation impacts. These effects directly change river hydrology or hydraulics—including sediment and nutrient availability or transport—and adversely affect the physical and ecological processes supporting wildlife habitat. Operational impacts typically occur above full pool level and include shoreline erosion resulting from power operations that cause water levels to fluctuate.

**2. Comments on the WAC's working definition of secondary impacts**

The WAC developed a draft definition of secondary impacts and modified it last month. It states:

**Secondary Wildlife Impacts** - The changes in ecosystem functions attributable to the construction and on-going operation of the hydropower system, such as food web alterations, contaminant concentrations in reservoir sediments, and other systemic changes stemming from the construction, inundation, and/or operation of the hydropower system. Secondary impacts also include the changes in human land uses within the historic floodplain enabled by dam

operations. All of these changes cause direct effects in wildlife communities and/or their habitats.

BPA cannot support this definition of secondary impacts and thinks secondary impacts are beyond the appropriate scope of the Program.

- The Act did not define mitigation because those involved in drafting it—including Bonneville, power customers, and resource managers—already knew the meaning of to “protect, mitigate, and enhance fish and wildlife.”<sup>1</sup> At the time the Act passed, there was no definition of secondary losses or secondary impacts in scientific literature. There was no commonly understood meaning of secondary impacts when the Act passed—and there still isn’t, hence the WAC’s effort to develop one 35 years later.<sup>2</sup> No one knew what secondary impacts were then and we still don’t. Congress therefore could not have meant for secondary impacts to be mitigated under the Act.
- Some secondary impacts such as expanded irrigation and development in flood plains were actually authorized purposes of the hydrosystem. They are not adverse secondary effects intended for offsetting with mitigation.
- Many different actors—such as recreational boaters—under a myriad of state and federal laws and regulation cause what may be considered secondary impacts—like wave erosion. The effects from these actors are often mistakenly attributed to power operations. Any definition of secondary impacts needs to consider all entities covered by the mitigation mandates in the Northwest Power Act and offer a way to avoid the appearance of having created a strict liability

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<sup>1</sup> The Act’s legislative history indicates that the terms “protect, mitigate, and enhance” were already used and understood in the region when the Act was passed, so Congress didn’t define those terms. H.R. REP. No. 96-976, pt. 1, 96th Cong. 2d Sess. 57 (May 15, 1980).

<sup>2</sup> The Findings on Recommendations accompanying the 2000 Program indicated the Council considered but did not adopt a definition of secondary impacts. See Appendix E, page 207.

obligation for secondary impacts whereby only one actor—BPA—is legally exposed if it doesn't offset a century of Columbia River Basin use and development.

- In past programs the Council has left open the question of whether to credit secondary gains against secondary losses.<sup>3</sup> The rationale not to credit secondary gains needs to be reconsidered in light of the new definitions being considered. Moreover, without a plan to address secondary gains, pursuing secondary losses is not ripe at this time.
- Gains from construction and inundation which have not already offset losses from the hydrosystem, and mitigation in excess of construction and inundation losses, should be considered before additional mitigation for operational or secondary losses is pursued.

### **3. Conclusion**

BPA continues to believe the region will achieve a greater quantum of mitigation at less cost by engaging in good faith discussions, based on qualitative assessments, to reach the reach long-term agreements for operational impacts envisioned in the program.

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<sup>3</sup> Council, 2000 Program, Appendix E at page 208.

# Council Guidance that Shaped Bonneville's Wildlife Mitigation Policies and Commitments October 23, 2015

Excerpted by BPA and submitted to the Council as part of  
the Wildlife Advisory Committee Process

*The following quotations come from final Council documents discussing wildlife mitigation. Each shaped regional decisions on how to fulfill its wildlife mitigation mandate. Notes or comments by BPA are italicized.*

## Pre-Act Mitigation

"Further analysis may be needed to determine if the mitigation which has been provided because of the initial inundation and current fluctuation in the water levels in the following projects is sufficient." [*Projects identified include Chief Joe, Albeni Falls, The Dalles, Hills Creek, Cougar, Green Peter, Lookout Point, Minidoka, Anderson Ranch, Black Canyon, Bonneville, The Dalles, John Day, McNary, Foster, and Dexter.*] 1984 PROGRAM, Table 4 notes.

"In consultation with the wildlife managers, tribes, Corps of Engineers, Bureau of Reclamation and Bonneville, determine the amount of credit to be given for existing wildlife mitigation undertaken in association with the federal hydropower projects." 1994 PROGRAM, page 11-8

"The Council agrees that existing wildlife programs should be identified throughout the entire wildlife planning implementation process."  
1984 PROGRAM, Response to Comments, page 21

*On whether Dworshak and the lower Snake dams were fully mitigated from pre-Act efforts, the Council called for mitigation status reports "and a consultation meeting... to determine whether further wildlife mitigation is needed."*  
1984 PROGRAM, Response to Comments, page 23

[*Discussing the credit for existing Corps mitigation projects, the Council noted that,*]  
"Neither side [BPA customers and wildlife managers] disputes the fact that some credit is due..." COUNCIL DECISION MEMORANDUM WILDLIFE AMENDMENTS:  
Lower Columbia Loss Assessments, page 8(Feb. 5, 1992).

"[T]he Corps has not fully mitigated the habitat unit losses identified for the Lower Snake River hydroelectric projects. Accordingly, the Council has included



the unmitigated wildlife losses associated with the Lower Snake River Projects in Table 11-4." 1995 PROGRAM, page 11-11

"The Wildlife Plan will address crediting existing mitigation."  
1995 PROGRAM, Response to Comments, page 16-224

## **Considering Gains from Construction and Inundation**

"Bonneville shall fund a review and analysis of the status of past, present, and proposed future wildlife planning and mitigation programs at each [federal] hydroelectric project in the Columbia River Basin. The study will evaluate:  
... baseline inventory data;  
...the extent to which wildlife populations have been affected by the hydroelectric projects;  
...the extent to which wildlife populations have been enhanced by construction of hydroelectric projects;  
...the extent to which previous programs have succeeded in mitigating wildlife losses...." 1984 PROGRAM, page 83

[The loss statements] "shall take into account all existing information pertinent to the project area and address both realized and potential positive and negative effects." 1989 WILDLIFE RULE, page 3

"Table 5 of the rule, which displays the losses at each project by target species, does not display the losses as totals. Rather, it shows both gains and losses for each target species with the expectation that gains will be credited to the projects by applying tradeoff analysis in [t]he development of the mitigation plans for each project." COUNCIL DECISION MEMORANDUM WILDLIFE AMENDMENTS: Lower Columbia Loss Assessments, page 8 (Feb. 5, 1992).

## **Wildlife Credit for Fish Habitat**

"The Council recognizes some fish habitat projects provide benefits to wildlife as well as fish. Because of this, the Council calls upon Bonneville and the wildlife managers to develop a method for crediting wildlife benefits from fish projects." 1995 PROGRAM, page 11-9

"The Program also directs [the fish and wildlife managers and Bonneville] to reach agreement on how wildlife mitigation projects and fish mitigation projects should be credited toward identified losses." 2009 PROGRAM, page 20

“Given the vision of this Program, the strong scientific case for a more comprehensive, ecosystem-based approach, and the shift in focus to implementation through subbasin plans, the Council believes that the wildlife mitigation projects should be integrated with the fish mitigation projects as much as possible.” 2009 PROGRAM, pages 20-21

“Some previous versions of this fish and wildlife program have treated wildlife mitigation measures as separate from fish mitigation measures. In this program, the Council has revised its approach, treating a given habitat as an ecosystem that includes both fish and wildlife.” 2000 PROGRAM, page 30

“The Council agrees that a watershed or fish project that does not contain the specific habitat type and units that must be acquired and that does not provide the sufficient degree of protection over time should not be credited to the construction and inundation losses (or to estimates of the operational losses, when developed).” 2000 FINDINGS ON RECOMMENDATIONS, page 208

## **Annualization**

*Council Summary of Comments:* The loss statements do not consider cumulative wildlife losses that have occurred since the time of inundation nor do they consider whether losses would have resulted from development other than inundation. PNUCC urged the Council to evaluate what might have happened to the habitat if it hadn't been flooded. Dr. Adrian Farmer, a leading national expert on HEP from the USFWS, said that such an analysis would be highly judgmental, and would not be based on a defined methodology. Wildlife agencies and tribes said that if this type of analysis were undertaken, they would want to evaluate the cumulative wildlife losses since inundation. The Army Corps said that they do not perform either kind of analysis in their impact studies, and assume that the two would likely cancel each other out.

*Council Response:* Based on the record of this rulemaking, the Council does not believe it would be productive to attempt to judge what might have happened to inundated habitat if it had not been inundated, or to evaluate cumulative losses. Such an undertaking would be speculative, and the time and resources it would require would be better spent for on-the-ground wildlife mitigation.” 1989 WILDLIFE RULE RESPONSE TO COMMENTS, pages 2, 3

“Nearly all commentators, including Bonneville, the Upper Columbia United Tribes and the proposers, stated that further effort to study the construction/inundation loss assessments is unnecessary. Thus in a revised

Section 11.3A.1, the Council recognized the loss assessments currently in the program as the unannualized losses attributable to the construction of the federal hydropower system. Any adjustment to these losses will be done as part of the operational loss assessments addressed in the draft Wildlife Plan, Appendix G." 1995 PROGRAM, Response to Comments, page 16-209

## **1:1 Crediting Verses 2:1 Crediting**

"The agencies and tribes argue that it is unnecessary for the Council to resolve the crediting issue in [the] context [] of this rulemaking. \*\*\* It is their contention that the Council intended that the crediting issue should be resolved by the BPA as part of its responsibilities to develop monitoring and evaluation procedures under the Council's wildlife mitigation rule." COUNCIL DECISION MEMORANDUM WILDLIFE AMENDMENTS: Lower Columbia Loss Assessments, page 8 (Feb. 5, 1992).

"At least until the draft Wildlife Plan is finalized, reviewed and adopted by the Council, the Council is not choosing a method for determining how much mitigation credit Bonneville will receive for wildlife mitigation activities. This section recognizes that crediting can be accomplished either through negotiated settlements, such as happened with the Lower Snake River Compensation Plan, or through the use of the Habitat Evaluation Procedure and the process of annualization. Bonneville and the wildlife managers should decide, in the finalization of the plan, on the appropriate method to be used for crediting the losses." 1995 PROGRAM, Response to Comments, page 16-211

"[T]he Council recognized existing mitigation project agreements, even if such agreements have a crediting ratio of 1:1. The only exception would be for agreements that clearly provide that the crediting ratio in the agreement was to be revisited upon final determination of the appropriate crediting ratio for the program as a whole." 2000 PROGRAM, Findings on Recommendations, page 205

"The Council retained the expectation that agreements to complete the mitigation for the construction and inundation losses should equal 200 percent of the remaining habitat units. But the program does not question the validity of any existing mitigation agreements." 2009 PROGRAM, Findings on Recommendations, page 87

"[T]he Council endorses [Bonneville's] suggestion that a mutually agreeable resolution of the crediting issue should be reached among the various parties prior to the funding of any new Bonneville funded wildlife mitigation projects beyond those already approved by the Council for these hydroelectric facilities. Resolution of this issue could take place as part of or separate from the negotiations leading to agreements." LETTER FROM COUNCIL CHAIR TOM TRULOVE

TO ADMINISTRATOR RANDY HARDY (Feb. 5, 1992) (discussing wildlife losses amendments).