

Staff summary of Issues and Recommendations Priorities, Funding allocation, In-lieu and other Implementation

*Preliminary draft, please refer to full recommendations for complete review

10/29/2013 10:09 AM

2009 Fish and Wildlife Program Section Section VIII (page 59)

Recommendation Topics Synthesis

1. Funding Priorities

Many recommendations call for the Council to establish priorities for BPA funding. These prioritization requests take many forms in many topical and geographic areas.

Some recommenders suggested that the Council continue with the same general scope and scale of the program, with emphasis on implementing the current biological opinions and accords. These recommendations argue that the program is at its fiscal, management and legal capacity.

Others are recommending that the Council address additional mitigation needs, particularly in areas where anadromous salmonids have been blocked by dams, for example in habitat above Grand Coulee Dam. These recommendations promote additional focus in this area including support for studies to investigate science based feasibility of upstream and downstream passage options for anadromous species, mitigation for lost anadromous fish, mitigation for impacts on resident fish, wildlife mitigation operational losses, operations and maintenance, and monitoring and evaluation.

Also, the Council received recommendations that directly and indirectly recommend that the program address other issues as well, including (but not limited to) toxic contaminants, operational and secondary losses for wildlife, transmission line impacts, wildlife monitoring and evaluation, invasive species protection, predation, and mitigation for lamprey, sturgeon and eulachon.

The Council received recommendations that prioritize specific actions and projects, some of which are currently funded, some of which are not currently funded. Similarly the Council received recommendations that the Program include specific actions outlined in regional recovery plans or develop implementation plans that are integrated with recovery plans.

2. Recommendations related to the 70-15-15 percentage allocation of resources

Some of the recommendations direct the Council to allocate at least 45 percent of program funding to areas above Chief Joseph and Grand Coulee dams and other blocked areas, citing a top-down approach, prioritizing headwaters habitats, while providing adequate funding for the area above Wells Dam in order to close the largest ESA gap for recovery. This concept stems

from the loss of anadromous fish and thus represents the 70% portion of the anadromous allocation.

Several recommendations direct the Council to maintain their role in providing Bonneville direction in regard to adequate funding levels, while other recommendations call for there to be an agreement between the Council and Bonneville on the overall fish and wildlife budget. Also some recommendations call for the budget to be allocated into broad funding categories such as RM&E, wildlife, anadromous, resident fish, etc.

3. Ensure Adequate Funding for the Fish and Wildlife Program

The Council received a number of broad ranging, and sometimes very specific, recommendations to adequately fund the Program including specifically described needs for implementation of current program measures, resident fish mitigation, mitigation above Grand Coulee and Chief Joseph dams, long term operation and maintenance, and other topics.

4. O&M of fish screens and other infrastructure investments

Several recommenders seek to create a structured approach to providing adequate BPA funding for long term ongoing operation and maintenance of infrastructure investments in many areas, with some of those recommenders focusing in on fish screens.

5. Follow-up to Council led collaborative processes

The Council received a recommendation that the Council should have clear, time bound follow-up plans for Council led processes.

6. Ensure funding for collaborative efforts to edge-match information

The Council received a recommendation for particular focus on funding efforts to ensure data matching across administrative boundaries.

7. Clarify the In-lieu policy and review In-lieu determinations

Many recommenders seek clarification from the Council on a definition of in-lieu and a direct Council oversight over all in-lieu determinations.

8. Maximize policy and program benefits and minimize process costs.

The Council received a series of efficiency recommendations ranging from the need for BPA to hire more real estate transactions staff, and for increased use of web-based meetings, and limiting use of BPA funds to only measures that have a clear and obvious hydro-system nexus.

9. Incorporate a Life Cycle Context into the Program

The Council received a specific recommendation to incorporate a life cycle (of anadromous fish) strategy in the program to ensure various actions throughout the system work together to benefit fish.

10. Emerging Habitat Issues and Threats to Sustainability

NOAA recommends that the program recognize and provide capacity to respond to a wide range of emergent threats to the sustainability of fish and wildlife mitigation efforts.

11. Managing liability for Large Woody Debris

The Council received two recommendations that the Council address the issue of liability associated with the emplacement of large woody debris to improve habitat throughout the basin.

12. Establish a framework for supporting local organizations in Montana that are working to achieve ecological outcomes that overlap with objectives of the Council's Program.

The Clark Fork Coalition recommends a framework specific to the Clark Fork watershed and its' major tributaries calling for support for the habitat restoration organizations in that watershed.

13. Incorporate other planning efforts

The Council received recommendations to increase efforts to identify, cooperate with and integrate program mitigation actions and funding with similar efforts being implemented by other organizations.

14. Include recommendations of the ISAB in adoption of a new Fish and Wildlife Program

Several entities recommend inclusion into the 2014 amended program of the ISAB recommendations resulting from their review of the 2009 program.

15. Structure the program around a Wild Fish Conservation requirement:

The Native Fish Society and the Wildlife Steelhead Coalition recommend significant restructuring of the program to put wild fish benefits ahead of other priorities in the basin.

16. Transmission Line Effects on Wildlife:

Mitigation for power line effects on wildlife is recommended for sage grouse who avoid tall structures such as transmission towers.

Recommendation Summary and Synthesis

1. Funding Priorities

- a. The Oregon Department of Fish and Wildlife (3) and Washington Department of Fish and Wildlife (4), Burns Paiute Tribe (12), Columbia River Intertribal Fish Commission (14), Kootenai Tribe of Idaho (24) recommend that the Council create an annual forum for states, tribes and partners to coordinate and discuss annual work priorities.
- b. The ODFW (3) and Nez Perce Tribe (25) recommend that the Program needs to take a larger vision of the entire system in order to prioritize strategies, rather than treating the symptoms or individual elements.
- c. Washington State Governors Salmon Recovery Office (5) recommends that the Council invest in regional organizations by providing ongoing stable funding so that they can continue implementation of federally-approved salmon recovery plans.

- d. The Lower Columbia Fish Recovery Board (6) recommends the Program place a greater emphasis on protection, mitigation and enhancement of Lower Columbia salmon and steelhead populations, including restoration of lower Columbia tributary habitat.
- e. The Upper Columbia United Tribes (27) recommend, In addition to the more specific comments that follow, the UCUT urge the Council to make structural changes to the Program in order to ensure that mitigation is fairly implemented across the basin. A more definitive pathway needs to be established to channel resident fish funds to the habitats above Chief Joseph and Grand Coulee dams and other blocked areas, and the Council should seriously consider expanding the resident fish budget and/or funding resident fish substitution efforts out of the anadromous fish allocation. This suggestion is in no way intended to undercut the importance of anadromous fish recovery efforts in the lower or upper river or to divert money away from critical resident fish projects elsewhere in the basin.
- f. The Spokane Tribe of Indians (26) recommends that the Program identify as one of its highest priorities the mitigation efforts in habitats above Grand Coulee Dam. “The Compilation of Salmon and Steelhead Losses in the Columbia River Basin” (March 1986; NPCC 2009, Appendix E) provide an analysis of the contribution of the hydropower system to salmon and steelhead losses that was based on data from 1976. Based on this information, the Council addressed the extent to which resident fish, wildlife, habitat and substitutions should be used to mitigate losses of anadromous fish production in these areas. However, current Program actions are inadequate and have not met mitigation requirement from the avoidable losses that have occurred since the construction of Grand Coulee Dam to present.

The Spokane Tribe (26) the Coeur d’ Alene Tribe and the Upper Columbia United Tribes (27) recommend the following as the Programs general funding *priorities*:

- a. Protect, mitigate, and enhance fish and wildlife that have been affected by the hydropower system but underserved by the Program due to its predominant focus on endangered species and Bi-Op requirements;
- b. Areas with the highest proportion of unmitigated construction and inundation losses (fish, wildlife, habitat, and temporally related losses) including specific priority for off-site/out-of-kind compensation mitigation opportunities towards immitigable impacts;
- c. Adequate project O&M funding for ongoing long-term projects (i.e., wildlife properties, fish hatcheries, etc.);
- d. Long-term settlement agreements (i.e., Montana wildlife settlement, Willamette wildlife settlement, etc.);
- e. Loss assessments and mitigation for un-quantified impacts (e.g., operational impacts);
- f. Data management;
- g. Research, Monitoring, and Evaluation;
- h. Regional coordination;

- i. Improving Program efficiencies; and
 - j. Updates to Subbasin Plans consistent with subbasin planning guidance and stakeholder participation.
- g. The Grand Ronde Tribe (18) states that the current program seems to downplay high priority projects funded under the Willamette Biological Opinion. The Tribe recommends rewriting the second bullet on page 44 to state: *The Council recognizes that NOAA Fisheries' Willamette River Biological opinion requires additional capital improvements at the Willamette projects operated by the Corps. Priority work at funded through the Columbia River Fish Mitigation Program (CRFM) should not go unfunded because of competing priorities between districts of the US Army Corps. If necessary, the Council encourages the Corps to seek alternative secure, and award sufficient funding to meet the priorities of the Willamette and Columbia River Biological Opinions.*
- h. The Confederated Tribes of Warm Springs (21) recommendations state that the most critical and valuable task that can be accomplished by the Council and the Region is to continue to ensure the commitment to the Accords, Biological Opinions and U.S. v. Oregon Management agreement and to support their expeditious and full implementation.
- h. The Nez Perce Tribe (25) recommends the following changes to the existing program language: Page 62, Paragraph 1. Modify language to indicate that the Council will coordinate with Bonneville Power Administration to assure that work necessary to satisfy Bonneville's fish and wildlife mitigation obligation is sized appropriately during rate case proceedings to adequately fund Program measures, necessary work in addition to actions that may be included in a Biological Opinion or in an Accord.

...and...

Page 62, Bullet 1. Reword to: "The Council will coordinate with Bonneville in an open public process, including participation by the fish and wildlife managers, to assure that Bonneville will fulfill its commitment to meet all of its fish and wildlife obligations."

- i. PFMC (34), NSIA (62) and ANWS (62) recommend that the NPCC work with all regional fish and wildlife managers to ensure that an amended Fish and Wildlife Program clearly describes regional goals, objectives, and priorities for the protection, mitigation and enhancement of fish and wildlife in the Columbia Basin. These priorities should be sufficiently detailed to guide BPA's funding decisions and should include a comprehensive program to monitor and evaluate outcomes of Program measures.

- j. BPA urges the Council to continue on the path of the 2009 Program and amend it only in ways that clearly address any unmet needs of fish and wildlife directly affected by the FCRPS or FERC-licensed hydro projects.
- j. The BPA Customer Group (44) recommend, given the finite Program budget, the Council has an obligation to carefully consider new projects proposed in the amendment process, and to prioritize projects offering the greatest benefit to fish and wildlife. Projects which have outlived their usefulness should be retired.

The Council should establish a methodology to prioritize potential projects and reach agreement on the projects of highest priority prior to recommending them to BPA.

As noted by the Council in its annual report on fish and wildlife costs, approximately one-third of Bonneville's wholesale rate of about \$30 per megawatt hour is estimated to be associated with its Fish and Wildlife Program.

The funding of the direct program exceeds \$260 million per year, having nearly doubled over the last decade. This level of funding has reached a critical capacity where its current size is all that the Council and Bonneville can adequately manage. Further increasing funding significantly increases the risk that funds could be expended unproductively and wastefully.

BPA has a finite budget and both BPA and the Council have a responsibility to provide an, "adequate, efficient, economical, and reliable power supply." The Council should keep these guiding principles in mind to create a program that is in line with the limits of program budgets and can be efficiently and cost-effectively managed. Where increased spending is needed in particular areas, this should come from reductions in other areas that may have outlived their

While BPA looks to the Council to make funding recommendations to the Program, BPA is the final arbiter of budget size and how it is allocated to projects in order to meet the requirements of the NW Power Act. (Section 4(h)(10)(a)). This necessitates the Council coordinating with BPA in the various phases of program planning and budgeting.

There needs to be an agreement between the Council and BPA on the overall fish and wildlife budget. Budget agreements provide planning certainty for the Council and allow BPA and its customers to better plan for costs and to set rates. The total budget for the direct program needs to be further allocated into broad funding categories such as RM&E, wildlife, anadromous and resident fish, etc.

- k. Various entities including ODFW (3), CCT Accord (15), Grand Ronde Tribe (18), Warm Springs Tribe (Accord) (21), Kalispel (Accord) (23), Kootenai Tribe of Idaho (24), Nez Perce Tribe (25), Spokane Tribe of Indians (26) recommended funding for specific priority projects or actions. Some of these actions are currently

funded, some are not. These are further discussed in the Subbasin/Multiyear action plan summary of recommendations.

1. Similar to k above, several entities including NOAA (30), the Lower Columbia Recovery Board (6), the Upper Columbia Recovery Board (7), the Yakima Basin Fish and Wildlife Recovery Board (8) recommend that the Program include specific actions outlined in regional recovery plans or develop implementation plans that are integrated with recovery plans. Recovery plans include objectives and recovery criteria and also specific actions in the form of implementation schedules or plans that outline specific actions and timelines for implementation.

2. Recommendations related to the 70-15-15 percentage allocation of resources

- a. The Washington Department of Fish and Wildlife (4) recommends the Council continue to allocate 70 percent of the available funding for anadromous fish, 15 percent for resident fish, and 15 percent for wildlife. We also want to highlight that the 70 percent allocation for anadromous fish be inclusive of non-listed populations, like the Hanford Reach Fall Chinook Salmon population.
- b. The Upper Snake River Tribes Foundation (28) advises and recommends to the Council, in addition to other recommendations: In addition to these recommendations for updating the Program, we call to mind the importance of the equitable nature of the Council Program's current geographic percentage allocation of 70:15:15, for anadromous fish, resident fish and wildlife, respectively. For our USRT member tribes, who are located primarily in the middle to upper reaches of the Snake River Basin, this seemingly arbitrary allocation is particularly critical since most of our tribes occupy areas currently blocked to salmon and steelhead and are almost solely dependent upon resident fish and wildlife resources to provide for their entire subsistence and cultural requirements. USRT requests that the Council continue to maintain this allocation across the extent of the updated Program.
- c. The Spokane Tribe of Indians (26), the Coeur d'Alene Tribe (13) and the UCUT (27) recommend the Council Set forth the following Program funding priority (allocation):
 - a. Allocate at least 45% of Program funding for the geographic area above Chief Joseph and Grand Coulee Dams (where 40% of documented losses have occurred and nearly 50% of the federal system's electricity is produced), while providing adequate funding for the area above Wells Dam in order to close the largest ESA gap for recovery; or
 - b. Allocate all resident fish funding to the habitats above Chief Joseph and Grand Coulee dams Upper Columbia and other blocked areas until resident fish harvest opportunities in these areas are commensurate with the combined anadromous and resident fish harvest allowed elsewhere in the Basin, and fund anadromous fish substitution projects from the anadromous allocation below Wells Dam.

Also, the The Spokane Tribe of Indians (26), the Coeur d'Alene Tribe (13) and the UCUT (27) recommend the following changes in the 2009 Program, section VIII.D.2.b:

- a. Insert the following sentence as the first bullet: "Protect land, habitat, and water from a 'top-down' approach, prioritizing headwater habitats in the Upper Columbia and Snake Rivers.";
- b. Change the language following what is currently the second bullet to read: "Enhance ecosystem function and species diversity over the long term in highly perturbed and novel ecosystems";
- c. Delete the text following the first bullet in the second bulleted list;
- d. Delete the first sentence following the second bulleted list and change the last sentence in that paragraph to: "The fund will not be used for a proposed acquisition if strong and compelling evidence is presented by both Council members from that state through an established objections process."

The Spokane Tribe recommends the Council include in the Program the following long term funding allocation language:

Past Program language, measures, amendment recommendations, Spokane Tribe of Indians planning efforts, and a 2006 Memorandum of Understanding between the Spokane Tribe of Indians and BPA recognize and support the development of broader fiscal and project implementation horizons. The Spokane Tribe of Indians has consistently provided Program recommendations in the form of 10 year planning since 1994. Based upon the benefits of these unimplemented recommendations, we recommend that the Council direct BPA to enter into negotiations with the Spokane Tribe of Indians to complete a ten-year implementation agreement. This will implement critical strategies and measures within the Program that would address mitigation obligations in the Spokane Tribe in their usual and accustomed area.

- d. The Clark Fork Coalition recommends the Council maintain or increase the current level of funding for resident fish and wildlife projects at 15%. The Coalition recommenda that the Council include strong provisions for protecting and enahancing resident fish and wildlife populations within the headwaters of the Columbia River system and maintaining or increasing the 15% funding allocation to resident fish projects.

3. Ensure Adequate Funding for the Fish and Wildlife Program

- a. ODFW (3), WDFW (4), Kootenai Tribe of Idaho (24) and the Upper Snake River Tribes (28) recommend the Council should work with fish and wildlife managers and partners to provide a periodic review of implementation of Fish and Wildlife Program measures and provide an annual report of the measures that were implemented and those which were not. In addition, because of the importance of

Subbasin plans, progress towards implementation of these plans should be reported on periodically. This could be as simple as documenting which measures are currently funded and those which have not been funded.

- b. ODFW (3), WDFW (4), Cowlitz Tribe (22) recommends that the Council reassert their role, as described in the Power Act, to provide direction regarding funding levels to BPA. In addition, the Council should use existing tracking tools to report on which elements of the Program are funded (and at what level) and which are currently unfunded. As new measures are added to the Program, funding mechanisms need to be identified. To address the need for new funding, we recommend that the Council use their convening role to coordinate and leverage funding for new and existing measures in the Program.
 - i. The Council's Program, though tied to ESA listed species, is broader than recovery of those species.
 - ii. Effort and funding needs to be balanced within the Program to ensure that all aspects of the Program move forward within the foreseeable future, though perhaps not within the next five years.
 - iii. The Council can uniquely address the needs of the ecosystem from the subbasin or basin wide perspective.
 - iv. BPA has large discretion regarding funding levels, but the measures listed in the Program are presumed to be funded, at some level. Tracking of these measures needs to be transparent.
 - v. In addition, it is critical that the cost of administering the Program be kept low. It is important that in an annual review of implementation, an accounting for Program administration costs be reviewed, as well.

- c. ODFW (3), WDFW (4), Cowlitz Tribe (22) recommend the Council should work with fish and wildlife managers and land and water management entities to identify opportunities to coordinate BPA project funding with other funding sources as appropriate to accomplish shared goals. Fish and Wildlife Program funds could leverage shared investments that support implementation of subbasin plans, recovery plans, salmon strongholds, and other mitigation and conservation strategies. The Fish and Wildlife Program and Council should:
 - i. Create a liaison position to assist project sponsors in identifying complimentary (cost-share) grants, and
 - ii. Develop complimentary or shared grant application formats to standardize and simplify proposal development and submission. Standard formats would also facilitate proposal review and consideration by local watershed partnerships.

- d. ODFW (3) and WDFW (4) recommends the wording at page 14 of the current program should be changed to specify that Council plays a pivotal role in ensuring adequate funding to meet mitigation responsibilities including those that are not tied to Bonneville Power Administration's requirements under the Endangered Species Act.

- e. ODFW (3) BPA should provide adequate funding for projects such that the following objectives are achieved:
- Restore native fish species (subspecies, stocks and populations) to near historic abundance throughout their historic ranges where original habitat conditions exist and where habitats and access can be feasibly restored.
 - Take action to reintroduce anadromous fish into blocked areas, where feasible (this objective should receive the highest priority).
 - Administer and increase opportunities for consumptive and non-consumptive resident fisheries for native, introduced, wild, and hatchery-reared stocks that are compatible with the continued persistence of native resident fish species and their restoration to near historic abundance (included intensive fisheries within closed or isolated systems).
- f. WDFW (4) advises it is critical that the Council continue to ensure mitigation for all fish and wildlife resources impacted by the federal dams. Though the delisting of salmon is a priority for the Council, WDFW and our partners, it is just one element of the Program.
- g. UCSRB (7) recommends the Council set aside a small percentage of the existing investment in each Province (e.g. 5% annually) to be managed locally (i.e. watershed councils, region, state – depending on the infrastructure) for long-term monitoring and maintenance needs. Turning to the local infrastructure that is in place to develop a mechanism for stewardship investment will ensure accountability and foster collaborative partnerships. Council investments in stewardship will facilitate adaptive management on previous investments, and will inform the program in its future habitat restoration investments.
- h. The Burns Paiute Tribe (12) advises the Council should not solely allow BPA, the Agency responsible for mitigating the negative impacts of the Federal Columbia River Power System (FCRPS) on fish and wildlife throughout the Basin, to determine the appropriate mitigation, goals, objectives, measures, and funding levels for these efforts. While project-level accountability from the project sponsors has seen dramatic improvements over the past several years. The Tribe believes that Program-level accountability has been delegated ultimately to BPA, with a narrow focus on ESA salmon and steelhead responsibilities. We recommend that the Council reassert their oversight role, as described in the Northwest Power Act (NPA), to provide direction regarding Program measures and funding levels to BPA.
- i. The Spokane Tribe (26) recommends that that the "Compilation of Salmon and Steelhead Losses in the Columbia River Basin" and the "Numerical Estimates of Hydropower-related Losses" contained in the Council Program (NPCC 1987, 1994, 1995, 2000, 2005) Technical Appendix E is the starting place for the Council's approach regarding anadromous fish loss mitigation. Mitigation in areas blocked to salmon and steelhead by the development and operation of the hydropower system has historically been inadequately funded. Flexibility in

approach is needed to develop a program that provides mitigation for anadromous fish loss where in-kind mitigation cannot occur.

The Spokane Tribe (26) also recommends that for the Program areas that do not yet carry Bonneville funding commitments, the Council will work with Bonneville and the project sponsors to estimate multi-year implementation budgets and secure funding commitments that assure adequate funding for these implementation plans. There has been limited opportunity for new project proposals and no new projects have been funded since the LRWSRI in 2007. Additionally, no new projects have been afforded to non-accord agencies. The program has recognized funding commitments already made by Bonneville and the other federal agencies to accords for long term project funding. However, the program also recognizes that those commitments must not come at the expense of sufficient funding for other Program priorities.

- j. CRITFC (14) recommends the Council should work with fish and wildlife managers and land and water management entities to identify opportunities to coordinate BPA project funding with other funding sources as appropriate to accomplish shared goals. Fish and Wildlife Program funds could leverage shared investments that support implementation of subbasin plans, recovery plans, salmon strongholds, and other mitigation and conservation strategies. The Fish and Wildlife Program and Council should: Create a liaison position to assist project sponsors in identifying complimentary (cost-share) grants, and develop complimentary or shared grant application formats to standardize and simplify proposal development and submission. Standard formats would also facilitate proposal review and consideration by local watershed partnerships.
- k. The Nez Perce Tribe recommends the Council modify language to indicate that the Council will coordinate with Bonneville Power Administration to assure that work necessary to satisfy Bonneville's fish and wildlife mitigation obligation is sized appropriately during rate case proceedings to adequately fund Program measures, necessary work in addition to actions that may be included in a Biological Opinion or in an Accord.
- l. The Methow Conservancy recommends that The Program be amended to recognize the limited amount of total financial resources that are being made available to project sponsors on the ground for the purpose of habitat protection vs. habitat restoration and that the Council use the amendment process to advance the development of one or more new metrics that recognizes the value of the function of habitat protection.

4. O&M of fish screens and other infrastructure investments

- a. The Idaho Department of Fish and Game (1) recommends the Council take a leadership position on this matter [the costs of long term Operation and Maintenance (O&M) of fish screens] and bolster language in the Program to

highlight the importance of addressing this Regional concern. New language could be included in section (II.D.1.g.) that focuses on Emerging Habitat Issues.

- b. ODFW (3) and WDFW (4) recognize the Council and BPA have made significant infrastructure investments including fish screens, hatcheries, wildlife areas, and other capital improvements. BPA and the Council will work with the States and Tribes to create a process for capital refurbishment over the next ten years.
 - Measure 1: Council should direct funding for replacement and repair beyond current operation and maintenance to ensure the continued value of existing infrastructure investment in fish passage, hatcheries and wildlife areas.
 - Measure 2: The Council will allocate adequate money for mitigation responsibilities. Specifically:
 - i. Adequate funding to provide for hatchery mitigation programs, hatchery conservation programs, and associated monitoring. For instance, maintain funding for Coded Wire Tagging.
 - ii. Ensure mitigation responsibilities include mitigation from power line impacts. For example, Greater Sage Grouse populations are particularly impacted by power line corridors that effectively carve up sage grouse habitat, increase predation, and impair nesting and dispersal, reducing the likelihood of recovery.
- c. The Confederated Salish and Kootenai Tribes of the Flathead Nation (CSKT) (16) advises and recommends the Program often makes long term investments to mitigate the impacts of the hydrosystem. Responsible ownership of real property involves stewardship of the attendant natural resources. Accordingly, such responsible ownership requires funding for operations and maintenance. Regardless of the type of real property interest acquired, each capital investment made under the Program for the purpose of habitat acquisition/protection shall include an endowment or other long term funding for the purpose of supporting the operations and maintenance activities necessary to perpetuate the attendant habitat functions and values. Therefore, BPA shall fund reasonable (current market value) long-term operations and maintenance activities and not rely on existing stagnant budgets to accommodate these needs whereby other mitigation actions do not get accomplished.

5. Follow-up to Council led collaborative processes

- a. IDFG (1) recommends the Council include recommendations that have come from different collaborative processes such as the Estuary/Plume workshop and the Fish Tagging Forum could be referenced in the new Program. Follow-up recommendations and unfinished work should be identified and time-bound.

6. Ensure funding for collaborative efforts to edge-match information

- a. IDFG (1) recommends the Council provide in the program provisions to ensure funding for collaborative and networked support for states and Tribes to edge-

match data, models, and protocols across administrative boundaries and to support an ecological basis of mapping and providing fish and wildlife data that is geospatially explicit.

7. Clarify the In-lieu policy and review In-lieu determinations

- a. Montana Department of Fish Wildlife and Parks (2) the Kootenai Tribe of Idaho (24) and the Upper Snake United Tribes (28) recommend the Council should clarify BPA's "In-lieu" funding restrictions and establish a policy in the new Program. The Council should review in-lieu decisions implemented by BPA to ensure that critical mitigation efforts receive BPA funding for successful and timely implementation. Also, the in-lieu provisions should not prevent project sponsors from establishing equitable cost-share arrangements with other entities that are responsible for similar on-the-ground actions.

- a. ODFW (3), WDFW (4), BPT (12), Cowlitz Tribe (22) recommend the Council should establish the in-lieu funding policy which shall be applied by BPA, and add it to the Program. In-lieu decisions by BPA should be reviewed by Council through a public process. Input from the Council is needed as the Fish and Wildlife Program is reviewed and updated to ensure that critical FCRPS mitigation efforts receive the necessary funding from BPA for successful and timely implementation.

8. Maximize policy and program benefits and minimize process costs.

- a. MDFWP (2) recommends the Council should ensure that the project prioritization and rolling reviews are applied consistently to maintain legitimacy in the process. Establish relationships between similar research activities throughout the Columbia Basin to derive over-arching results to assess the relative benefits of mitigation actions and avoid actions that are duplicative or at cross-purposes. Share results with project proponents so that the most effective techniques are applied basinwide. Encourage the development of rate cases that allow the expansion of the program to include mitigation of impacts caused by dam operations, and that capture current opportunities to protect key habitats that are being lost through time to development and other incompatible land uses. Consistently strive to reduce process and increase meaningful on-the-ground actions. Promote and encourage partnerships whenever possible to reduce both short-term and long-term costs while also achieving landscape-scale conservation benefits.

- b. MDFWP (2) recommends the Council pursue longer-term agreements and contract terms to reduce process and allow project proponents to focus their efforts more towards on-the-ground mitigation actions.

- c. MDFWP (2) recommends the Council should recognize BPA's current staff resources limit our ability to implement habitat protection projects and place an unreasonable burden on their existing staff that are involved in real estate transactions. The Council should encourage BPA to hire more staff to secure

important fish and wildlife habitats before opportunities to do so are lost over time. Personnel and funding should be sufficient to accomplish mitigation projects in a timely, responsive, equitable, and effective manner.

- d. MDFWP (2) recommends the Council should use web meetings, conference calls and electronic mail to reduce travel and coordination costs.
- e. The Kootenai Tribe of Idaho (24) recommends the following ways the Council should exercise its responsibilities to maximize policy and program benefits and minimize process costs:
 - i. Encourage the development of rate cases that allow the expansion of the program to include mitigation of impacts caused by dam operations, and that capture current opportunities to protect key habitats that are being lost through time to development and other incompatible land uses.
 - ii. Consistently strive to reduce process and increase meaningful on-the-ground actions.
 - iii. Promote and encourage partnerships whenever possible to reduce both short-term and long-term costs while also achieving landscape-scale conservation benefits.
 - iv. Increase Council's involvement in the Program budget tracking of projects and measures, and reemphasize the Council's role in providing direction regarding funding levels to BPA.
- f. The BPA Customer Group (44) advises and recommends the Council must resist pressure to move beyond the scope of funding in the NW Power Act that is focused on mitigating the effects of the FCRPS. The Program needs to be focused on the mandates in the Act in order achieve what have become increasingly significant mitigation goals. The Council has an opportunity to prioritize, eliminate redundancies, and create efficiencies during this process.

The Program's given authority under the Northwest Power Act relates directly to, "fish and wildlife, including related spawning grounds and habitat, affected by the development and operation of any hydroelectric project on the Columbia River and its tributaries." As such, the Program and the projects it recommends for funding by BPA must have a clear and obvious hydro nexus.

- In addition to a clear and obvious hydro nexus, the primary purpose for the recommended projects shall also be for hydro mitigation.
- The Council must resist the temptation to expand the Program into measures that are not caused or related to the development and operation of the FCRPS because it will distract from the goals of the Act and dilute the effect of available funding from BPA's customers. This is especially true for calls to expand the Program to address invasive species and toxics.

9. Incorporate a Life Cycle Context into the Program

- a. NOAA Fisheries (30) advises and recommends the program include language setting program activities into a a life cycle context:

- The Program is generally organized by sector, i.e. habitat, artificial production, harvest, hydrosystem passage, mainstem, ocean, and estuary. It is important that strategies and actions in each sector not be considered in isolation. The Council should add a strategies section to the Program that says to use an integrated life cycle approach to survival improvements. The primary strategy would be to consider the entire life cycle when evaluating the benefit of mitigation actions.
- The Council should support continued research and life cycle modeling to inform decision makers of the biological benefits they could expect from implementing or synchronizing different suites of actions across the life cycle.
- Lifecycle modeling will help decision-makers understand potential survival outcomes under different sets of assumptions regarding future ocean and climate conditions.

10. Emerging Habitat Issues and Threats to Sustainability

- a. NOAA Fisheries (30) advises and recommends the program include language to address the ISAB Program Review recommendations to focus on threats to sustainability including: loss of biological diversity, climate change, chemicals and contaminants, food webs, uncertainty about carrying capacity, and the relationship between artificial production and the loss of productivity in natural populations.

11. Managing liability for Large Woody Debris

- a. Washington Governor's Salmon Recovery Office (5) and the Upper Columbia Salmon Recovery Board (7) recommends the Council should use its leadership position to develop standards or guidance on the use of wood in habitat complexity (ISRP or ISAB), increase awareness of the importance of wood in our implementation framework across the Columbia Basin; and invest in efforts that address functioning ecosystem processes across an entire watershed.

12. Establish a framework for supporting local organizations in Montana that are working to achieve ecological outcomes that overlap with objectives of the Council's Program.

- a. The Clark Fork Coalition (51) advises and recommends to the Council the following: "We appreciate the suggestion offered by the Independent Scientific Advisory Board (ISAB) in its Review of the 2009 Columbia River Basin Fish and Wildlife Program (March 7, 2013) (ISAB recommendations for social engagement (p. 57). As demonstrated by the 2010 completion and adoption of the Bitterroot Subbasin Plan (Coalition – lead entity) and Blackfoot Subbasin Plan (Trout Unlimited – lead entity) into the Fish and Wildlife Program, local nongovernmental organizations have effectively assumed the leadership necessary to achieve collaborative conservation outcomes in Montana. The Coalition urges the Council to incorporate the ISAB's recommendation (no. 5) that the Fish and Wildlife Program "[s]upport and champion organizations that provide effective governance and support productive partnerships among the relevant sciences, between science, management and the public, and across social and ecological

boundaries. Facilitate and support non-traditional organizations and approaches that can bring new capacity and vision to landscape and ecosystem approaches.” Existing collaborative partnerships in the Bitterroot and Upper Clark Fork are poised to become more integrated with the Fish and Wildlife Program to help achieve significant ecological outcomes that will directly advance the Council’s vision for the Basin.

13. Incorporate other planning efforts

- a. CRITFC (14) advises and recommends the Fish and Wildlife program is only one of many programs that affect the condition of anadromous populations and their habitats. Just as restoration actions are likely to fail unless they are taken with an understanding of the entire life cycles, so they are likely to fail if they are taken without an understanding of, and coordination with, at least the other major programs that affect habitat conditions. Programs, plans and actions by the Bureau of Reclamation, Bureau of Land Management, the U.S. Forest Service, the Department of Agriculture, the Corps of Engineers, individual state and county zoning and land use decisions, and local climate change adaptation plans, individually or together, have the ability to thwart or overwhelm any efforts or progress of Fish and Wildlife program projects.

Measure: The Council should develop a system for tracking the activities of, and similarities and differences between plans and actions of the above agencies in individual subbasins.

- b. The RFEGC (63) recommends the Council include open competitive solicitations for projects and/or project sponsors in many areas of Washington State, with the exception of the Upper Columbia. As such, the Program generally continues to fund the same project sponsors year after year, missing the opportunity for innovation, and competition. Opening the process to competition for potential new project sponsors (such as Regional Fisheries Enhancement Groups in Washington State) could have a positive effect on the quality and cost - effectiveness of projects. Another option would be to provide direct capacity or project funds to new sponsors with the infrastructure, expertise and a 20 year track record of success (such as the Regional Fisheries Enhancement Groups located in the Columbia basin in Washington State).

14. Include recommendations of the ISAB in adoption of a new Fish and Wildlife Program:

- a. The Native Fish Society (60) and the Wild Steelhead Coalition (60) recommend the following amendments for the Fish and Wildlife Program of the Power Planning and Conservation Council and request that the recommendations provided the Council by the Independent Scientific Advisory Board (ISAB), in their review of the 2009 Fish and Wildlife Program, be included in creating a new Fish and Wildlife Program for the Columbia River basin. It is unlikely that the scope, competence and scientific rigor provided to the Council by the ISAB in their review and recommendations for improving the Fish and Wildlife Program could be duplicated by the public, so we are submitting the ISAB recommendations to the Council for adoption by reference.

15. Structure the program around a Wild Fish Conservation requirement:

- a. The Native Fish Society (60) and the Wild Steelhead Coalition (60) recommend the Council establish a Council subcommittee to work with the Independent Scientific Advisory Board and other science panels to establish a solution to the gap between science and policy. The outcome should be an improved integration of science into the Council's decision making process. The Council's Fish and Wildlife Program is more concerned about the impact of actions on wild salmonids than in developing a program that is focused on actions to benefit wild salmonids. For example, using hatchery supplementation of wild salmon populations for recovery has been reviewed by the Council's science teams and in the peer reviewed scientific literature that concludes hatchery supplementation is an action that imposes risk to wild salmonid recovery, conservation and sustainability.

The Council would develop a conservation requirement for each subbasin for each species and race of wild salmonids using it. The conservation requirement is based on an estimate of habitat capacity and managed for a spawning population that fully utilizes that habitat. Monitoring, evaluation and research refinements are used to improve management objectives related to harvest, achievement of spawner abundance objectives, life history and genetic diversity, productivity and distribution objectives in each subbasin.

The fishery agencies and the Council's Program have not specifically addressed the actions required to recover salmonids threatened with extinction and other wild populations in the Columbia River basin. Actions taken have been to reduce impacts of on-going fishery programs such as harvest and hatchery production. Among the actions that could be taken to directly address wild salmonid recovery are:

A. Establish spawner abundance goals (escapement) for each species and race in each watershed based on an estimate of the carrying capacity of each watershed (subbasin plans). This process would be refined with additional monitoring and evaluation.

B. Determine the ecological and genetic impact on natural production of wild salmonids in each watershed from releases of hatchery fish, and stray hatchery fish. This would include impacts from hatchery releases of juvenile fish including smolts that residualize in streams and compete with wild fish for food and habitat. It would also include the impact of stray hatchery fish and residualized hatchery fish on the survival and reproductive success of wild salmonids that are spawning and rearing with hatchery fish strays. Introgression of hatchery fish and hybridization is controlled so that the reproductive success and adaptive capacity of wild salmonids is enhanced.

C. Develop a stock transfer policy that maintains the genetic integrity of wild populations and their reproductive success in each watershed (subbasin) within the Columbia River basin. Because wild salmonids are locally adapted to their home streams for reproduction, transfer of stocks from other watersheds cause wild salmonid population performance to degrade. Reproductive success of wild salmonids is also affected by stock transfers through ecological impacts related to competition, predation and predator attraction.

D. Complete a genetic and life history inventory of each wild salmonid population by watershed (subbasin) in order to establish a benchmark snap shot of wild salmonid biological diversity that could be used to evaluate harvest, hatchery and habitat management in the Columbia River basin.

E. Establish “Hatchery Free Zones” watersheds such as Wind River, Asotin Creek, Joseph Creek, John Day River, and Molalla River and implement a monitoring and evaluation of the biological response for wild native salmonid populations in these streams to provide a scientific basis for evaluating the hatchery experiment in the Columbia River Basin. Not all hatchery-free watersheds are being monitored so it is impossible to evaluate the hatchery and wild salmonid production investments in the Columbia River basin. Additional hatchery-free watersheds must be established in the Columbia River basin in each ESU, MPG, DPS, and SMU at a minimum.

F. Establish nutrient enrichment targets for watersheds from naturally spawning wild salmonid carcasses to achieve specific criteria that benefit the productivity of watersheds for salmonids, riparian areas, and wildlife.

G. Habitat protection and restoration investments would be designed to maintain the chain of habitat requirements for each species of wild salmon and steelhead to complete their life history requirements in freshwater. This would include structure, temperature, flow and retention of gravel and nutrients. To be effective this would include the entire habitat utilized by salmonids from headwater stream protection, mainstem tributaries, mainstem Columbia River, estuary and near-shore ocean habitats.

H. Manage the hatchery production in the Columbia River basin so that the nutrient budget in the tributaries, mainstem, estuary and near- shore ocean environments benefit wild salmonid recovery, and control hatchery releases so that predator attraction and predation by hatchery fish, birds and mammals no longer block wild salmonid recovery.

I. Manage for variation and biological diversity of wild salmonids rather than for stable production of a salmonid product for utilization.

J. Develop a conceptual framework for salmon and steelhead recovery based on ecosystem function, promoting sustainable wild salmonid productivity, diversity, distribution and abundance.

17. Transmission Line Effects on Wildlife

a. ODFW (3) recommends the Council ensure mitigation responsibilities include mitigation for power line impacts. For example, Greater Sage Grouse populations are particularly impacted by power line corridors that effectively carve up sage grouse habitat, increase predation, and impair nesting and dispersal, reducing the likelihood of recovery.