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November 27, 2012

MEMORANDUM

TO: Fish and Wildlife Committee members

FROM: Patty O'Toole, Program Implementation Manager
Tony Grover, Fish and Wildlife Division Director
John Shurts, General Counsel

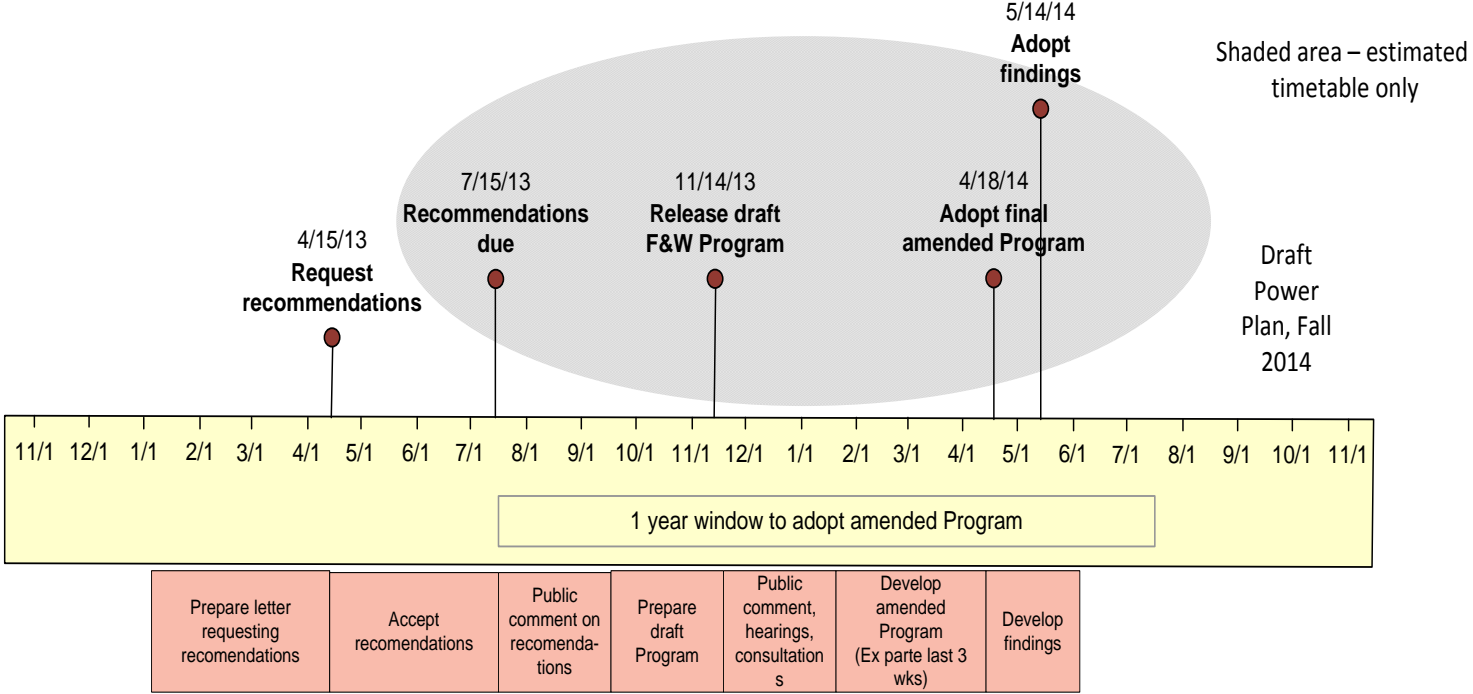
SUBJECT: Discussion of the next Fish and Wildlife Program Amendment

At the December Fish and Wildlife Committee meeting the staff will again review with the Committee a draft schedule for the amending the Council's Columbia River Basin Fish and Wildlife Program. The staff will also discuss the main elements of the Northwest Power Act that relate to the Fish and Wildlife Program amendment process. Attached to this memo is a list of these elements. In addition, the staff continues preparing brief summaries for some of the Program topic areas to review with the Committee. The purpose of the summaries is to acquaint the Committee members, staff and others about particular areas of the existing Fish and Wildlife Program, highlight existing Program policy in those areas and also to highlight some key regional developments that may influence future Fish and Wildlife Program policy.

Attached are summaries covering the Program topics including the Program framework, Program implementation, harvest, resident fish substitution, resident fish, and wildlife. The summaries are brief and of a similar style for ease of reading. They are not presented in any priority order. For a more comprehensive review of Fish and Wildlife Program policy in these areas, please refer to the 2009 Columbia River Basin Fish and Wildlife Program.

One of the amendment process related tasks to be accomplished in the next several months is the need to draft a formal, written, request for recommendations. This is a required step for the Council to initiate the program amendment process. In some past amendment processes, the Council has opted to highlight particular topics or issues for the region to consider when developing their recommendations to the Council. As the Committee and staff review the program topic summaries the Committee may find that some of the topics and recent developments may be appropriate for inclusion in the formal letter the Council will send to the region requesting recommendations. The staff suggests that based on the discussion at the December Committee meeting, staff begin to draft a discussion of issues for the letter for discussion at the January Committee meeting.

**Possible 2014 Fish and Wildlife Program
Amendment Timeline (9/24/12)**



Shaded area – estimated timetable only

Draft Power Plan, Fall 2014

10/15/12

11/15/14

Northwest Power Act of 1980

Fish and Wildlife Program: Section 4(h)(1-9), plus Purposes in Section 2

Purposes

Section 2 The purposes of this Act, together with the provisions of other laws applicable to the Federal Columbia River Power System, are all intended to be construed in a consistent manner. Such purposes are also intended to be construed in a manner consistent with applicable environmental laws. Such purposes are:

2(1) to encourage, through the unique opportunity provided by the Federal Columbia River Power System--

- 2(1)(A)** conservation and efficiency in the use of electric power, and
- 2(1)(B)** the development of renewable resources within the Pacific Northwest;

2(2) to assure the Pacific Northwest of an adequate, efficient, economical, and reliable power supply;

2(3) to provide for the participation and consultation of the Pacific Northwest States, local governments, consumers, customers, users of the Columbia River System (including Federal and State fish and wildlife agencies and appropriate Indian tribes), and the public at large within the region in--

- 2(3)(A)** the development of regional plans and programs related to energy conservation, renewable resources, other resources, and protecting, mitigating, and enhancing fish and wildlife resources.
- 2(3)(B)** facilitating the orderly planning of the region's power system, and
- 2(3)(C)** providing environmental quality;

2(4) to provide that the customers of the Bonneville Power Administration and their consumers continue to pay all costs necessary to produce, transmit, and conserve resources to meet the region's electric power requirements, including the amortization on a current basis of the Federal investment in the Federal Columbia River Power System;

2(5) to insure, subject to the provisions of this Act--

- 2(5)(A)** that the authorities and responsibilities of State and local governments, electric utility systems, water management agencies, and other non-Federal entities for the regulation, planning, conservation, supply, distribution, and use of electric power shall be construed to be maintained, and
- 2(5)(B)** that Congress intends that this Act not be construed to limit or restrict the ability of customers to take actions in accordance with other applicable provisions of Federal or State law, including, but not limited to, actions to plan, develop, and operate resources and to achieve conservation, without regard to this Act; and

2(6) to protect, mitigate and enhance the fish and wildlife, including related spawning grounds and habitat, of the Columbia River and its tributaries, particularly anadromous fish which are of significant importance to the social and economic well-being of the Pacific Northwest and the Nation and which are dependent on suitable environmental conditions substantially obtainable from the management and operation of Federal Columbia River Power System and other power generating facilities on the Columbia River and its tributaries.

Section 4(h)(1-9): Fish and Wildlife Program

4(h)(1)

4(h)(1)(A) The Council shall promptly develop and adopt, pursuant to this subsection, a program to protect, mitigate, and enhance fish and wildlife, including related spawning grounds and habitat, on the Columbia River and its tributaries. Because of the unique history, problems, and opportunities presented by the development and operation of hydroelectric facilities on the Columbia River and its tributaries, the program, to the greatest extent possible, shall be designed to deal with that river and its tributaries as a system.

4(h)(1)(B) This subsection shall be applicable solely to fish and wildlife, including related spawning grounds and habitat, located on the Columbia River and its tributaries. Nothing in this subsection shall alter, modify, or affect in any way the laws applicable to rivers or river systems, including electric power facilities related thereto, other than the Columbia River and its tributaries, or affect the rights and obligations of any agency, entity, or person under such laws.

4(h)(2) The Council shall request, in writing, promptly after the Council is established under either section 4(a) or 4(b) of this Act and prior to the development or review of the plan, or any major revision thereto, from the Federal and the region's State fish and wildlife agencies and from the region's appropriate Indian tribes, recommendations for--

- (A) measures which can be expected to be implemented by the Administrator, using authorities under this Act and other laws, and other Federal agencies to protect, mitigate, and enhance 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;
- (B) establishing objectives for the development and operation of such projects on the Columbia River and its tributaries in a manner designed to protect, mitigate, and enhance fish and wildlife; and
- (C) fish and wildlife management coordination and research and development (including funding) which, among other things, will assist protection, mitigation, and enhancement of anadromous fish at, and between, the region's hydroelectric dams.

4(h)(3) Such agencies and tribes shall have 90 days to respond to such request, unless the Council extends the time for making such recommendations. The Federal and the region's water management agencies, and the region's electric power producing agencies, customers, and public may submit recommendations of the type referred to in paragraph (2) of this subsection. All recommendations shall be accompanied by detailed information and data in support of the recommendations.

4(h)(4)

4(h)(4)(A) The Council shall give notice of all recommendations and shall make the recommendations and supporting documents available to the Administrator, to the Federal and the region's State fish and wildlife agencies, to the appropriate Indian tribes, to Federal agencies responsible for managing, operating, or regulating hydroelectric facilities located on the Columbia River or its tributaries, and to any customer or other electric utility which owns or operates any such facility. Notice shall also be given to the public. Copies of such recommendations and supporting documents shall be made available for review at the offices of the Council and shall be available for reproduction at reasonable cost.

4(h)(4)(B) The Council shall provide for public participation and comment regarding the recommendations and supporting documents, including an opportunity for written and oral comments, within such reasonable time as the Council deems appropriate.

4(h)(5) The Council shall develop a program on the basis of such recommendations, supporting documents, and views and information obtained through public comment and participation, and consultation with the agencies, tribes, and customers referred to in subparagraph (A) of paragraph (4). The program shall consist of measures to protect, mitigate, and enhance fish and wildlife affected by the development, operation, and management of such facilities while assuring the Pacific Northwest an adequate, efficient, economical, and reliable power supply. Enhancement measures shall be included in the program to the extent such measures are designed to achieve improved protection and mitigation.

4(h)(6) The Council shall include in the program measures which it determines, on the basis set forth in paragraph (5), will--

- (A) complement the existing and future activities of the Federal and the region's State fish and wildlife agencies and appropriate Indian tribes;
- (B) be based on, and supported by, the best available scientific knowledge;
- (C) utilize, where equally effective alternative means of achieving the same sound biological objective exist, the alternative with the minimum economic cost;
- (D) be consistent with the legal rights of appropriate Indian tribes in the region; and
- (E) in the case of anadromous fish--
 - (i) provide for improved survival of such fish at hydroelectric facilities located on the Columbia River system; and
 - (ii) provide flows of sufficient quality and quantity between such facilities to improve production, migration, and survival of such fish as necessary to meet sound biological objectives.

4(h)(7) The Council shall determine whether each recommendation received is consistent with the purposes of this Act. In the event such recommendations are inconsistent with each other, the Council, in consultation with appropriate entities, shall resolve such inconsistency in the program giving due weight to the recommendations, expertise, and legal rights and responsibilities of the Federal and the region's State fish and wildlife agencies and appropriate Indian tribes. If the Council does not adopt any recommendation of the fish and wildlife agencies and Indian tribes as part of the program or any other recommendation, it shall explain in writing, as part of the program, the basis for its finding that the adoption of such recommendation would be--

- (A) inconsistent with paragraph (5) of this subsection;
- (B) inconsistent with paragraph (6) of this subsection; or
- (C) less effective than the adopted recommendations for the protection, mitigation, and enhancement of fish and wildlife.

4(h)(8) The Council shall consider, in developing and adopting a program pursuant to this subsection, the following principles:

- (A) Enhancement measures may be used, in appropriate circumstances, as a means of achieving offsite protection and mitigation with respect to compensation for losses arising from the development and operation of the hydroelectric facilities of the Columbia River and its tributaries as a system.
- (B) Consumers of electric power shall bear the cost of measures designed to deal with adverse impacts caused by the development and operation of electric power facilities and programs only.
- (C) To the extent the program provides for coordination of its measures with additional measures (including additional enhancement measures to deal with impacts caused by factors other than the development and operation of electric power facilities and programs), such additional measures are to be implemented in accordance with agreements among the appropriate parties providing for the administration and funding of such additional measures.
- (D) Monetary costs and electric power losses resulting from the implementation of the program shall be allocated by the Administrator consistent with individual project impacts and system-wide objectives of this subsection.

4(h)(9) The Council shall adopt such program or amendments thereto within one year after the time provided for receipt of the recommendations. Such program shall also be included in the plan adopted by the Council under subsection (d).

Fish and Wildlife Program Framework (staff summary, section I-C, page 3, and section 2-B, page 9)	
Framework	The Program's goals, objectives, scientific foundation and actions are organized in a framework, an integrated approach to regional fish and wildlife mitigation and recovery.
Fundamental Elements	The fundamental elements of the Program framework are the vision, biological objectives, implementation strategies, procedures, assumptions, guidelines, and the scientific foundation.
Levels of organization	The Program is organized in three levels: <ol style="list-style-type: none"> 1) a basin-wide level that contains the Program vision, scientific foundation, biological objectives, general strategies and implementation provisions that apply across the Program. 2) An ecological province level that divides the Columbia River into 11 unique ecological areas, each representing a particular type of terrain and corresponding biological community. 3) A subbasin level with integrated plans that contain the specific objectives and measures for the 62 subbasin and mainstem reaches of the Columbia river, Snake river and Columbia River estuary. 4) The Program also recognizes the ocean environment as an integral component of the Columbia River ecosystem.
Adaptive Management	Since 1982 the Council has emphasized an adaptive management approach. This approach calls for the need for a close and appropriate interaction between science and policy decision-making. Decisions should be informed by adaptive management during the Program amendment processes and during Program implementation (project decisions).
Science Foundation and Principles	While the vision is a policy choice about what the Program should accomplish, the scientific foundation describes our best understanding of the biological realities that will govern how the vision is accomplished. The scientific foundation is the basis for the working hypotheses that underlie the Program but also provides specific guidance for Program measures. All actions taken to implement this Program must be consistent with the eight scientific principles ¹ identified in the Fish and Wildlife Program.

¹ The Council has charged the ISAB with the primary role in reviewing and recommending modifications to the scientific principles. Toward that end, the ISAB is currently undertaking a review of the 2009 Fish and Wildlife Program, including the scientific foundation and principles.

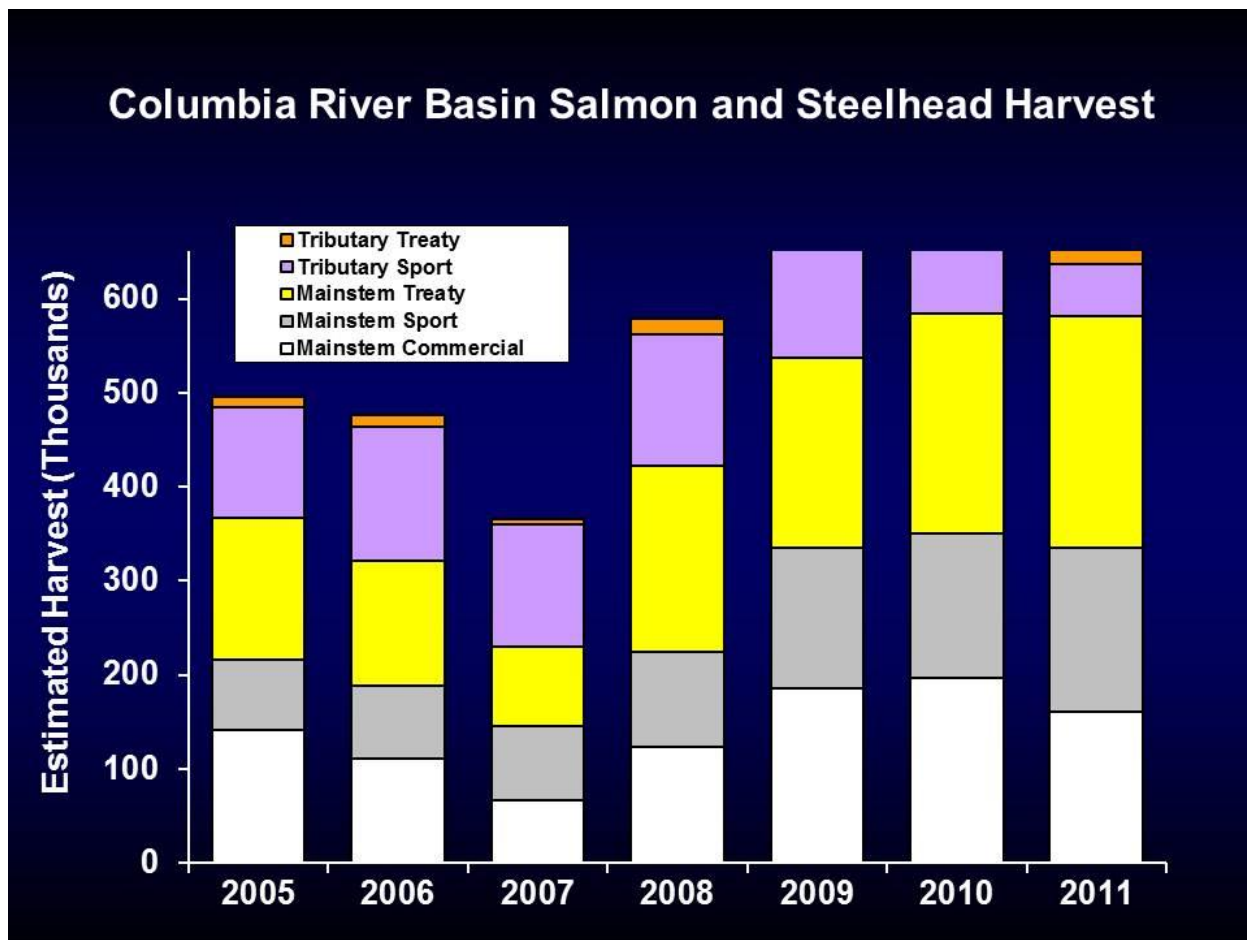
Some key developments and ISAB Reports since 2009 F&W Program Adoption include:

- **ISAB report 2011-1:** “Columbia River Food Webs: Developing a Broader Scientific Foundation for Fish and Wildlife Restoration”
- **ISAB report 2011-4:** “Using a Comprehensive Landscape Approach for More Effective Conservation and Restoration”
- Since 2007, the continued spread, and increased risk of further spread, of non-native, invasive *Dreissenid* mussels into waters of all western states except the four Northwest states and Wyoming.

Fish and Wildlife Program Harvest Policy (staff summary, section D 4, page 19)	
Primary strategy	<p>Ensure subbasin plans are consistent with harvest management practices and increase opportunities for harvest wherever feasible.</p> <p>The Council makes no claim to regulatory authority over fish and wildlife harvest. The Council recognizes and affirms fish and wildlife managers' legal jurisdiction and tribal trust and treaty rights. However, there is little point in recommending funding for implementation of a subbasin plan when the objectives for the plan cannot be reached under current harvest regimes.</p>
Strategies	<p>Consider Adopting HSRG Recommendations</p> <p>The HSRG is scheduled to make recommendations on changes necessary in hatchery and harvest practices consistent with regional conservation and harvest goals. The Council will consider adopting the HSRG recommendations into the Program.</p>
	<p>Artificial Production</p> <p>Artificially produced fish created for harvest should not be produced unless they can be effectively harvested in a fishery or provide other significant benefits. The appropriate response to artificial production programs that do not meet this strategy is termination or revision so that the Program complies with this strategy.</p>
	<p>Monitoring and Reporting</p> <p>The Council recommends the following practices in harvest management, and encourages the region's fish and wildlife managers to adopt them:</p> <ul style="list-style-type: none"> • Encourage an open and public process, and provide timely dissemination of harvest-related information in a publicly accessible manner. • Integrate harvest management to ensure conservation efforts made in one fishery can be passed through subsequent fisheries. • Manage harvest to ensure that risk of imprecision and error in predicted run size does not threaten the survival and recovery of naturally spawning populations. • Monitor inriver and ocean fisheries and routinely estimate stock composition and stock-specific abundance, escapement, catch, and age distribution. Expand monitoring programs as necessary to reduce critical uncertainties. Manage data so that it can be easily integrated and readily available in real time. • Manage harvest consistent with the protection and recovery of naturally spawning populations. • Encourage scientific peer review of harvest management plans and analyses to assess compatibility with strategies and objectives in this Program.

Some key developments since 2009 F&W Program Adoption include

- HSRG more commonly accepted, however some entities still consider it to be “a tool, not a rule.”
- US v OR (2008-2017 Management Agreement continues)



Columbia Basin Fish and Wildlife Authority, Status of the Resource, 2012

*Tributary treaty data for 2009-11 not included.

*Tributary sport data incomplete for Washington (2005-11) and Oregon (2011).

Fish and Wildlife Program Resident Fish Policy (staff summary, section D 7, page 22)	
	The habitat, artificial production, harvest, and hydrosystem protection and mitigation strategies address effects on both anadromous and resident fish. There are additional considerations that apply to resident fish mitigation in those areas of the Program with completed quantitative resident fish loss assessments and where land acquisitions are a primary tool for mitigation. These include:
Strategies	<p>Resident Fish Mitigation and Crediting. In areas where construction and inundation losses have been assessed and quantified by the appropriate agencies and tribes, mitigation should occur through the acquisition of appropriate interests in real property at a minimum ratio of 1:1 mitigation to lost distance or area.</p>
	<p>Resident Fish Mitigation Settlement Agreements. Whenever possible, resident fish mitigation via habitat acquisitions should take place through long-term agreements that have clear objectives, a management plan, a committed level of funding that provides a substantial likelihood of achieving and sustaining the stated wildlife mitigation objectives, and provisions to ensure effective implementation with periodic monitoring and evaluation and reporting. Resident fish mitigation agreements should include:</p> <ul style="list-style-type: none"> • Measurable objectives, including the estimated resident fish habitat losses addressed by acquisitions • Demonstration of consistency with the policies, objectives and strategies in the Council’s program • Adherence to the open and public process language found in the Northwest Power Act • When possible, provide protection for riparian habitat that can benefit both fish and wildlife, and protection for high-quality native habitat and species of special concern, including endangered, threatened, or sensitive species • Incentives to ensure effective implementation of the agreement, with periodic monitoring and evaluation and reporting of results. • Provisions for long-term maintenance of the habitat adequate to sustain the minimum credited habitat values for the life of the project • Sufficient funding to demonstrate a substantial likelihood of achieving and sustaining the resident fish mitigation objectives <p>Resident fish mitigation agreements may include the protection of undegraded or less degraded habitat or, in appropriate circumstances may include protection and improvement of degraded habitat when necessary for effective mitigation. In the latter case, any mitigation agreements with Bonneville should include sufficient funding to enhance, restore, and create habitat functions and values for the target species of resident fish on acquired lands that are degraded.</p> <p>Resident fish mitigation agreements may represent incremental mitigation based on individual habitat acquisitions. However, where a resident fish loss assessment has been developed for a particular hydropower facility or for an entire subbasin using the best available scientific methods, and the loss assessment has been accepted as part of the Program, the Council encourages mitigation settlement agreements.</p>

Some key developments since 2009 F&W Program Adoption include

- Loss assessments not completed
- Perspective that some areas have not achieved mitigation
- All resident fish projects reviewed in 2011/12.



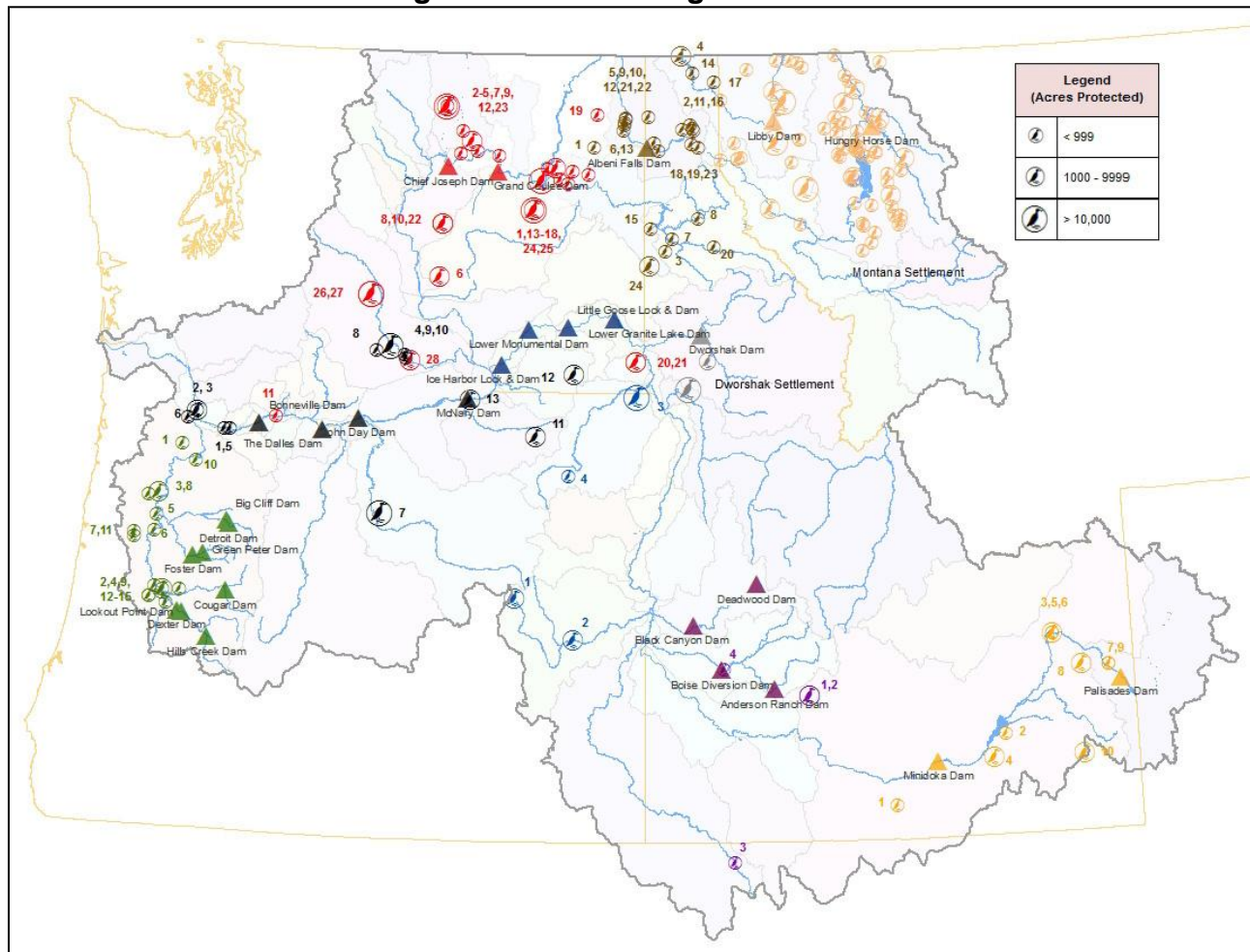
Columbia Basin Fish and Wildlife Authority, Status of the Resource, 2012

Fish and Wildlife Program Wildlife Mitigation Policy (staff summary, section D 6, page 20)	
Primary strategy	<p>Complete the current mitigation program for construction and inundation losses and include wildlife mitigation for all operational losses as an integrated part of habitat protection and restoration.</p> <ul style="list-style-type: none"> • The Wildlife C&I loss assessments table (C-4) to be used as the starting point for wildlife mitigation measures and long-term mitigation agreements. • The parties should reach agreement on how wildlife mitigation projects and fish mitigation projects should be credited toward identified losses.
Strategies	Bonneville and the fish and wildlife managers should develop long term mitigation agreements by 2011.
	Bonneville and the applicable management agency shall propose a management plan adequate to sustain the minimum credited habitat values for the life of the project.
	Wildlife mitigation projects should be integrated with the fish mitigation projects as much as possible.
	The Council adopted and continues to endorse the 2:1 crediting ratio for the remaining habitat units. However, when loss estimates appear inaccurate due to habitat unit stacking and those inaccuracies cannot be resolved through use of a different, cost-effective tool or approach recommended by the crediting forum and approved by the Council, then the 2:1 ratio will not apply to the remaining stacked habitat units.
	<p>Long-term agreements should include :</p> <ul style="list-style-type: none"> • Measurable objectives and a statement estimating the contribution to addressing the wildlife losses identified in Table C-4 in the Appendix; • Demonstration of consistency with the wildlife policies in the Program, • Adherence to the open and public process language found in the Northwest Power Act. • Provide for protection for riparian habitat that can benefit both fish and wildlife, protect high-quality native habitat and species of special concern, including ESA species • Incentives to ensure effective implementation of the agreement, with monitoring and evaluation and reporting of results. • Provisions for long-term maintenance of the habitat to sustain minimum credited habitat values, sufficient funding to demonstrate a substantial likelihood of achieving and sustaining the mitigation objectives.
	The Council endorses habitat units as the preferred unit for mitigation accounting and the Habitat Evaluation Procedure methodology as the preferred method for estimating habitat units lost and acquired. The program specifically addresses allocation of habitat units, habitat enhancement credits, operational losses, implementation guidelines, the mitigation (wildlife) crediting forum.

Some key developments since 2009 F&W Program Adoption include

- Wildlife Crediting Forum – initial work complete.
- Major settlements completed or underway.
- HEP future?
- Monitoring of populations/habitat over time?

**BPA Wildlife Mitigation Projects -
Wildlife Management Areas assigned to FCRPS Dams**



Columbia Basin Fish and Wildlife Authority, Status of the Resource, 2012

Fish and Wildlife Program Implementation Policy (staff summary, section VIII, page 59)	
Strategies (policies)	Multi-year action plans - Shape the measures recommended for all areas of the Program into multi-year action plans similar to those implementation plans in the 2008 Biological Opinion and the Accords, secure funding commitments that ensure adequate funding for these action plans.
	Project Review Process - The Northwest Power Act directs the Council to oversee a process to review projects proposed for funding by Bonneville. The review includes: ISRP review of proposed projects, public review and comment on the ISRP's recommendations, final Council recommendations to Bonneville on projects to be funded. The Council must consider the impact of ocean conditions on fish and wildlife populations, and determine whether the projects employ cost-effective measures to achieve Program objectives.
	Step-Review Process - include a thorough review by the ISRP and the Council at three different phases: master or conceptual planning, preliminary design, and final design. The Council intends the Step Review process to be flexible and cost-efficient.
	Project Reporting and Management -The overall guidelines for project reporting are described in the MERR section of the Program. All projects must have implementation monitoring that must be reported to Bonneville within six months of completion of the project or annually in the case of multi-year projects.
	<p>Project Funding Priorities- Bonneville's mitigation obligation must be sized appropriately during Bonneville's rate cases to provide equitable treatment to high priority fish and wildlife projects regardless of whether or not they are identified in a Biological Opinion or in an Accord, while also accommodating yearly budget limitations.</p> <p>The Council adopts the following funding principles to prioritize among the many needs to address fish and wildlife impacts throughout the basin:</p> <ul style="list-style-type: none"> • Bonneville will fulfill its commitment to "meet all of its fish and wildlife obligations." • Funding levels should take into account the level of impact caused by the hydropower system. • Wildlife mitigation should emphasize addressing areas of the basin with the highest proportion of unmitigated losses. • The Council will continue to evaluate the distribution of funding to provide fair and adequate treatment across the Program. The Council maintains the current funding allocation for anadromous fish (70 percent), resident fish (15 percent), and wildlife (15 percent), until a new budget allocation is adopted. • Water transaction program/land acquisition fund
	Program Reporting and Annual Report to Governors and Congress - Bonneville and the federal operating agencies will work cooperatively with the Council to produce an annual report that will provide an accounting of fish and wildlife expenditures and hydropower operation costs.

Fish and Wildlife Program Implementation Policy continued (staff summary, section VIII, page 59)

	<p>Program Coordination -The Council benefits from the coordinated efforts of many groups, committees and organizations in implementing the Council’s Program on an ongoing basis.</p> <p>Coordination funding should be focused on the following activities that support Program implementation:</p> <ul style="list-style-type: none"> • Data management (storage, management, and reporting) • Monitoring and evaluation (framework and approach) • Developing and tracking biological objectives • Review of technical documents and processes • Project proposal review • Coordination of projects, programs and funding sources within subbasins • Facilitating and participating in focus workgroups on Program issues • Information dissemination (technical, policy, and outreach)
	<p>Coordination with Other Regional Program - The Council will:</p> <ul style="list-style-type: none"> • Continue to pursue opportunities to implement the Program in coordination with other federal, state, tribal, Canadian, and volunteer fish and wildlife restoration programs. The Council will continue to work with national programs that influence our work in the basin, such as the Clean Water Act, and the Endangered Species Act. • Coordinate with organizations that track and monitor data on non-native species distribution, climate change, and human population change at the Northwest regional scale. • Continue to track and participate in ongoing efforts to monitor trends in Northwest habitat quality, ocean conditions and fish and wildlife as described in the Monitoring, Evaluation, Research, and Reporting section above.
	<p>Independent Scientific Review - Review procedures, administration, membership, appointment procedures, conflict of interest for:</p> <ul style="list-style-type: none"> • The Independent Scientific Review Panel • The Independent Scientific Advisory Board

Some key developments since 2009 F&W Program Adoption include

- Fish and Wildlife Program budget issues
- Project reviews completed for several project categories including regional coordination projects