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September 4, 2013

MEMORANDUM

TO: Council Members

FROM: Patty O'Toole, Program Implementation Manager
Peter Paquet, Manager, Wildlife and Resident Fish
Laura Robinson, Program Implementation and Liaison Specialist
John Shurts, General Counsel

SUBJECT: Columbia River Basin Fish and Wildlife Program amendment process
1. Columbia Basin Fish and Wildlife Program: Artificial Production
2. Next steps in the amendment process

At the September Council meeting, staff will continue the ongoing discussion of topics relevant to the Fish and Wildlife Program amendment process.

First, staff will explore the topic of artificial production of fish. The attached outline for the discussion is organized into two main parts. The first part covers artificial production in the Council's Fish and Wildlife Program (Program) including what the Program itself says about artificial production (policy) and also describes what production is funded and implemented under the Program and how those decisions are made. Staff will then move into the broader context of production in the Columbia River Basin, including its varied funding sources, its history as it relates to the Program, and some lessons and conclusions.

Second, staff will briefly review the Program amendment schedule and outline the next steps. Recommendations to amend the Council's Program are due **Tuesday, September 17**.

Topic 1. Artificial Production: As part of the Council's Fish and Wildlife Program and in the context of all artificial production in the Columbia River Basin

September 2013

Part 1: Artificial Production in the Council's Fish and Wildlife Program

A. What does the F&W Program say about artificial production?

Vision:

- An ecosystem that sustains abundant, productive, diverse community of fish and wildlife
- abundant opportunities for harvest
- accomplish by protecting and restoring natural functions where feasible
- where not feasible, other compatible methods, including artificial production

Planning assumptions:

- habitat based program – artificial production must be used consistent with this effort and avoid adverse impacts
- there is an obligation to provide fish and wildlife mitigation where habitat has been permanently lost due to hydroelectric development
- artificial production of fish may be used to replace capacity, bolster productivity, alleviate harvest pressure; restore anadromous fish populations into areas blocked by dams
- artificial production actions must have an experimental, adaptive management design, to evaluate benefits, address scientific uncertainties, and improve hatchery survival while minimizing the impact on and, if possible, benefitting fish that spawn naturally.
- harvest provides significant benefits; should be consistent with objectives to protect and recover naturally spawning populations

Program Strategies: Artificial Production:

Primary strategies: Artificial production can be used under the following conditions:

- 1) in an integrated manner to complement habitat improvements by supplementing native fish populations up to the sustainable carrying capacity of the habitat with fish that are as similar as possible, in genetics and behavior, to wild native fish
- 2) in a segregated manner to maintain the genetic integrity of the local populations in order to expand natural production while supporting harvest of artificially produced stocks
- 3) to replace lost salmon and steelhead in blocked areas

Artificial production should be used in a manner consistent with ecologically based scientific principles for fish recovery. The use of artificial production for harvest should have minimal impact on naturally spawning fish. Fish reared for the purpose of supplementing the recovery of a wild population should clearly benefit that population.

Implementation of recommendations for Artificial Production Review (APR) and Artificial Production Review and Evaluation (APRE)

- Brief explanation of APR (late 1990s) and APRE (early 2000s)
- Ten minimum standards out of APR are incorporated in the Program:
 - The purpose and use of artificial production must be considered in the context of the ecological environment in which it will be used.
 - Artificial production must be implemented within an experimental, adaptive-management design that includes an aggressive program to evaluate the risks and benefits and addresses scientific uncertainties.
 - Hatcheries must be operated in a manner that recognizes that they exist within ecological systems whose behavior is constrained by larger-scale basin, regional, and global factors.
 - A diversity of life history types and species needs to be maintained in order to sustain a system of populations in the face of environmental variation.
 - Naturally selected populations should provide the model for successful artificially reared populations, in regard to population structure, mating protocol, behavior, growth, morphology, nutrient cycling, and other biological characteristics.
 - The entities authorizing or managing an artificial production facility or program should explicitly identify whether the artificial production product is intended for the purpose of augmentation, mitigation, restoration, preservation, research, or some combination of those purposes for each population.
 - Decisions on the use of the artificial production tool need to be made in the context of deciding on fish and wildlife goals, objectives, and strategies at the subbasin and province levels.
 - Appropriate risk management needs to be maintained in using the tool of artificial production.
 - Production for harvest is a legitimate management objective of artificial production, but to minimize adverse impacts on natural populations associated with harvest management of artificially produced populations, harvest rates and practices must be dictated by the requirements to sustain naturally spawning populations.
 - Federal and other legal mandates and obligations for fish protection, mitigation, and enhancement must be fully addressed.

Wild salmon protection: no artificial production should be used in certain areas

Harvest hatcheries: hatcheries may be used to replace lost harvest; no adverse effects thru production, straying or harvest

Restoration: supplementation to preserve and rebuild; locally made decision consistent with subbasin plan; coordinate with habitat to ensure self-sustaining population; support genetic and life-history diversity

Experimental approach: must have a plan detailing purpose, methods, relationship to habitat, and measureable objectives, along with regular evaluation.

Review of hatchery and wild stocks: the HSRG final report was not yet out in 2009; expected to include standards for both segregated and integrated programs, including standards for proportions; Council will consider adoption into program at later date;

include considerations from *U.S. v Oregon* management plan, Pacific Salmon Treaty, tribal trust and treaty rights, recovery plans

Program Strategies: Harvest

- Linkage of artificial production and harvest

Program Strategies: Non-Native Species

- When substituting non-native fish for anadromous production in the blocked areas, an environmental risk assessment should be completed

Program Strategies: Resident Fish Substitution

- Linkage to artificial production not explicit but important
- Investigate reintroduction; restore and increase abundance of native fish species

Subbasin Plans:

- Contain specific measures and objectives; including artificial production
- Explain subbasin planning and review in relation to artificial production, including ISRP review

B. What artificial production is funded and implemented under the Fish and Wildlife Program?

- Basic premise from Northwest Power Act, beginning in first F&W Programs:
 - Act and F&W Program intended to provide basinwide systematic protection and mitigation
 - offsite mitigation, *including artificial production*, expected and not ruled out
 - but also no longer assumed artificial production alone or even primarily would be sufficient for mitigation; need to regain river function to protect and mitigate
 - artificial production under the F&W Program has always, in theory, been about coordinating production with habitat improvements – generally not about harvest mitigation production under the Act (exception is SAFE).
 - also been about improving habitat conditions and natural production above Bonneville, and thus using artificial production in aid of that effort -- moving production back upriver
 - 2000 Program (and then 2009) more explicit about conceptual foundation in response to Return to the River and other considerations, including Council-led Artificial Production Review of late 1990s
- How has Artificial Production, funded through the Fish and Wildlife Program, been developed, decided and reviewed?
 - Through 30 years of program and project development and review, especially and ultimately through the “three-step process.” This purpose of these efforts was to better understand the potential impacts of hatchery fish on wildlife populations and to prescribe guidance for operating hatcheries that is consistent with our current state of understanding.
 - briefly describe the 3-step process and the steps

- how and why we developed this process: late 1990s context and first ISRP reviews
- final implementation decisions: substance, O&M and M&E
- role of ESA review
- Bonneville funding decisions
- continued review in categorical and geographic reviews
- example or two

A list of anadromous and resident fish production projects funded under the Council's Fish and Wildlife Program can be found in Appendix A.

Part 2: Broader Context of Artificial Production and Artificial Production Policy in the Columbia River Basin

A. Basic facts about Columbia basin artificial production, with a primary focus here on salmon and steelhead

- Facts
 - Approximately 143 million salmon and steelhead are produced and released annually from hatcheries in the Columbia River Basin, with about 90 million released above Bonneville Dam. 67% of fish released above Bonneville are produced primarily for harvest; the rest are produced either for supplementation or a fishery/supplementation mix.
 - 178 hatchery programs have operated within the Columbia River Basin
 - There are about 350 salmon and steelhead populations in the Columbia River Basin
 - See Appendix B for figures.
- General list or grouping of programs, purposes; and who runs and funds:
 - Mitchell Act
 - Lower Snake River Compensation Program
 - Specific project mitigation production
 - Dworshak
 - Northwest Power Act/Fish and Wildlife Program
 - HSRG population reports:
http://hatcheryreform.us/hrp/reports/appendix/welcome_show.action
 - Bureau of Reclamation
 - Idaho Power Company
 - Corps of Engineers
 - Pacific Coastal Salmon Recovery Board
 - Public Utility Districts
 - US Fish and Wildlife Service
 - Portland General Electric
 - State funds
 - Sports fish restoration funds
- The different programs have become more intertwined over the years -- LSRCP/F&W Program and Mitchell Act/F&W Program are examples.
- Hatcheries provide mitigation for the loss of habitat quantity and quality that has resulted from the construction and operation of dams and other development activities. They are a substitute for lost or degraded habitat. Within the Columbia River Basin approximately 50% of the habitat that was available historically to anadromous fish is no longer accessible.
- Wild and hatchery anadromous fish comparisons from the ISAB's review of the 2009 Fish and Wildlife Program (ISAB 2013-1) can be found in Appendix B.

B. Summary history of Columbia River Basin artificial production policy and reviews

- Artificial production was the primary method of mitigation for decreases in salmon numbers, whether from excessive harvest, habitat destruction or dam building (e.g., Grand Coulee example) from 30s into 70s; much of it in lower river to replace lost upriver production; much of the system's artificial production programs date from this period
 - intertwined federal/state harvest mitigation effort
- *US v Wash* treaty fishing litigation decisions include hatchery production in opportunity to catch; becomes rule in *US v Oregon*, too
- Northwest Power Act arrives just after that: reiterate, systematic protection and mitigation; artificial production expected and not ruled out, but also no longer assumed it alone would be sufficient for mitigation; need to gain back some river function and habitat, too -- part of national and regional trend to protect and restore environment
- [US v Oregon and Columbia River Fish Management Plan](#) 1970s/80s -- includes production commitments; moving production upriver; need funding source (Northwest Power Act becomes obvious target); beginning of planning for much of what became F&W Program hatcheries, but in different context from early hatchery concepts.
- ESA -- arriving on scene at roughly same time; drives toward a solution to decline for wild populations; but population segments (ESUs) include hatchery pops, too; original listing decisions do not; Hatchery Policy; an approach that is cautious about more artificial production; presents obvious hurdles to new artificial production program in order to protect wild fish; related state wild fish policies
- With that context, review and reform of artificial production from mid 90s on:
 - Integrated Hatchery Operation Team and [individual hatchery audits](#)
 - [Regional Assessment of Supplementation Program](#)
 - The use of artificial propagation to maintain or increase natural production while maintaining long-term fitness of the target population, and keeping the ecological and genetic impacts on non-target populations within acceptable limits.
 - Achieve this when: 1) the number of natural origin fish is greater in the near and long term with supplementation than it would have been without; 2) the fitness (productivity, evolutionary capacity, life history diversity, genetic diversity) of the natural population is not altered in the long term from what it would have been without supplementation; 3) straying into other natural populations are at low levels (aggregate strays at 2-5% of spawners) and, predation, competition and disease impacts are minimal.]

- Artificial Production Review (with Science Review Team)
- [Artificial Production Review Evaluation](#)
- ESA consultations; NEPA and EISs; Hatchery Genetic Management Plans
 - NOAA overarching policy from late 1990s to limit total juvenile releases to 200 million or less
 - NOAA declares jeopardy on itself, with regard to Mitchell Act hatcheries
 - HGMP history and status
- Council: three-step review and ISRP guidance on individual projects
- New life for older programs
 - reprogramming Mitchell Act fish to become part of upriver supplementation efforts
 - LSRCF programs retooled to help support conservation
 - captive broodstock and safety-net concepts
- *Alsea Valley* decision and listing review and subsequent litigation -- what happened and did not happen
- [Ad Hoc Supplementation Workgroup](#)
- [Hatchery Scientific Review Group](#) (HSRG)¹ (Puget Sound, then Columbia).
 - summary of HSRG origin and process
 - policy recommendations
 - metrics for assessing relationship of natural spawners to hatchery contribution
 - recommendations for objectives
 - HSRG is still active and working on a manuscript that will serve as a science update to their 2011 Fisheries publication².

C. Independent Science Reviews

Numerous reviews of artificial production by the Independent Scientific Advisory Board and the Independent Scientific Review Panel have occurred since 1998. They are not summarized here but two are mentioned as recent examples:

- In 2011, The ISRP prepared a retrospective report (ISRP 2011-25). It is an expanded summary of the ISRP's review of results conducted for the Research, Monitoring and Evaluation and Artificial Production category review and they concluded that there is a lack of empirical evidence from ongoing projects to determine the conservation benefit of artificial production other than preventing extinction. The ISRP highlighted the need to better integrate supplementation with habitat restoration efforts. Until recruit per spawner ratios exceed 1 consistently, supplementation, in their opinion, is a life support system.

¹ HSRG (Hatchery Scientific Review Group). 2009. Columbia River hatchery reform system-wide report. Available online (September 3, 2013) <http://hatcheryreform.us/Review>, Fisheries, 36:11, 547-561

² P. J. Paquet, T. Flagg, A. Appleby, J. Barr, L. Blankenship, D. Campton, M. Delarm, T. Evelyn, D. Fast, J. Gislason, P. Kline, D. Maynard, L. Moberand, G. Nandor, P. Seidel & S. Smith (2011): Hatcheries, Conservation, and Sustainable Fisheries—Achieving Multiple Goals: Results of the Hatchery Scientific Review Group's Columbia River Basin Review, Fisheries, 36:11, 547-561

- Earlier this year the ISAB reviewed the 2009 Fish and Wildlife Program (ISAB 2013-1) and expressed concerns about the carrying capacity of the basin, impacts of hatchery produced fish on food webs, and the loss of productivity and biological diversity in natural populations.

D. A few lessons/conclusions

- Significant number of policy reviews and attention and thought to policy over the last 25 years have generated a large body of information to inform the Council; essentially all of the policy reforms reinforce each other in directions of the lessons of conservation biology
- A few of the reviews have also taken the next step to evaluate specific hatchery programs and practices against increasingly more sophisticated standards and metrics
 - IHOT
 - APRE
 - HSRG
 - three-step and project reviews
 - ESA reviews; HGMP
- Result has been changes and reforms in individual program/facility practices and in the way new programs/facilities are developed
 - big changes in broodstock selection
 - some facility closings
 - new rearing and releasing practices
 - stronger effort to isolate or segregate pure harvest hatcheries; while also taking on risks of integrating other production with efforts to rebuild natural spawners
 - harvest management to try to balance catch of mostly hatchery fish with protection of especially listed populations; conservation principles
 - safety net; captive broodstock; reintroduction programs
 - significant investments in M&E to assess whether particular programs are doing what they intend to; whether they are efficacious on own terms; whether they are minimizing harm to natural spawners
- Clearly, government decision makers at all levels are willing to continue use of artificial production to reach program and subbasin objectives and are willing to accept and manage risks
 - relationship to effort to restore habitat function and natural production
 - Council's Fish and Wildlife Program has been in the forefront – basically saying that it may not be a question of using artificial production OR working to restore habitat function and natural production. One approach need not preclude the other, conceptually or under current conditions. In concept they can even work together,
 - Yet, huge areas of natural production still lost due to system changes; artificial production as substitute
 - relationship to harvest

- especially, unlike other listed species, harvest is a central relationship humans have and want with salmon and steelhead
- Even with relative consistent approach to management, serious questions remain, especially at the level of overarching policy and results and evaluation
 - Research: series of studies that participants and critics continually call upon, to justify opposing views of extent of risk and harm and extent of success in delivering benefits and minimizing risk
 - examples
 - ISAB insights
 - Need for broader, comprehensive evaluation of overall production policy, practices and effects
 - CHREET concept
 - Council decision on comprehensive evaluation for artificial production as part of RME decision in 2011-- artificial production metrics from HSRG and elsewhere

Appendix A. Fish production funded under the Fish and Wildlife Program (working draft)

- **Anadromous Fish Production:**
 - Yakima River Design and Construction-Yakima/Klickitat Fisheries Project (YKFP), Project #1988-115-25. Yakama Confederated Tribes; fall Chinook and coho.
 - Yakima/Klickitat Fisheries Project (YKFP) Operations and Maintenance - Cle Elum Facilities, Project #1997-013-25. Yakama Confederated Tribes; spring Chinook.
 - Yakima/Klickitat Fisheries Project - Project #1988-115-35. Yakama Confederated Tribes; spring and fall Chinook, coho and steelhead.
 - Mid-Columbia Coho Restoration Project. Project #1996-040-00, Yakama Confederated Tribes; coho.
 - Chief Joseph Hatchery Program, Project #2003-023-00. Colville Confederated Tribes; summer/fall Chinook spring Chinook.
 - Fall Chinook Acclimation Facilities on Snake/Clearwater Rivers, Project #1998-010-05. Nez Perce Tribe; fall Chinook.
 - Nez Perce Tribal Hatchery, Project #1983-350-00. Nez Perce Tribe, spring and fall Chinook.
 - Snake River Sockeye Captive Propagation, Project #2007-402-00. IDFG; sockeye.
 - Grande Ronde Supplementation Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E) on Lostine Project #1998-007-02. Nez Perce Tribe; spring Chinook
 - Umatilla Hatchery Operation and Maintenance Project # 1989-035-00. ODFW and Confederated Tribes of the Umatilla Indian Reservation; fall and spring Chinook, summer steelhead.
 - Walla Walla Hatchery Final Design/Construction, Project #2000-038-00. Confederated Tribes of the Umatilla Indian Reservation; spring Chinook.
 - Hood River Production Operations and Maintenance (O&M)-Warm Springs, Project # 1988-064-00. Confederated Tribes of the Warm Springs Reservation of Oregon; spring Chinook, summer and winter steelhead.
 - Select Areas Fisheries Enhancement (SAFE), Project #1993-060-00. ODFW, WDFW, Clatsop Economic Development Council ; coho, spring and fall Chinook
 - Johnson Creek Artificial Propagation Enhancement, Project #1996-043-00. Nez Perce Tribe; summer Chinook.
 - Steelhead Kelt Reconditioning, Project #2008-458-00, Yakama Confederated Tribes; steelhead.

- **Resident fish production:**
 - Ford Hatchery Improvement, Operation and Maintenance, Project #2001-029-00. WDFW; kokanee, rainbow trout.
 - Hungry Horse Mitigation Habitat Restoration and Research, Monitoring and Evaluation (RM&E) - Sekokini Springs element, Project #1991-019-03. Montana Fish, Wildlife and Parks (MFWP); westslope cutthroat Trout.

- Colville Hatchery Operation and Maintenance (O&M), Project #1985-038-00. Colville Confederated Tribes; brook trout, rainbow trout and lahontan cutthroat trout.
- Spokane Tribal Hatchery, Project #1991-046-00. Spokane Tribe; Rainbow trout and kokanee.
- Sherman Creek Hatchery, Project #1991-047-00. WDFW; kokanee.
- Hungry Horse Mitigation - Creston Hatchery, Project #1991-019-04, USFWS; westslope cutthroat and rainbow trout.
- Nez Perce Trout Ponds, Project#1995-013-00. Nez Perce Tribe; rainbow trout.
- Duck Valley Reservation Reservoir Fish Stocking Operations and Maintenance (O&M) and Monitoring and Evaluation (M&E), Project #1995-015-00. Shoshone-Paiute Tribes; rainbow trout.
- Kootenai River White Sturgeon Aquaculture Conservation Facility, Project #1988-064-00. Kootenai Tribe; white sturgeon and burbot.
- Kalispel Tribe Resident Fish Program, Project #1995-001-00. Kalispel Tribe; largemouth bass.

Appendix B. Artificial production figures

Figure 1. Estimate of artificial production of salmon and steelhead in the Columbia River Basin by species proportion (Nez Perce Tribe, Future of Our Salmon Conference, 2012).

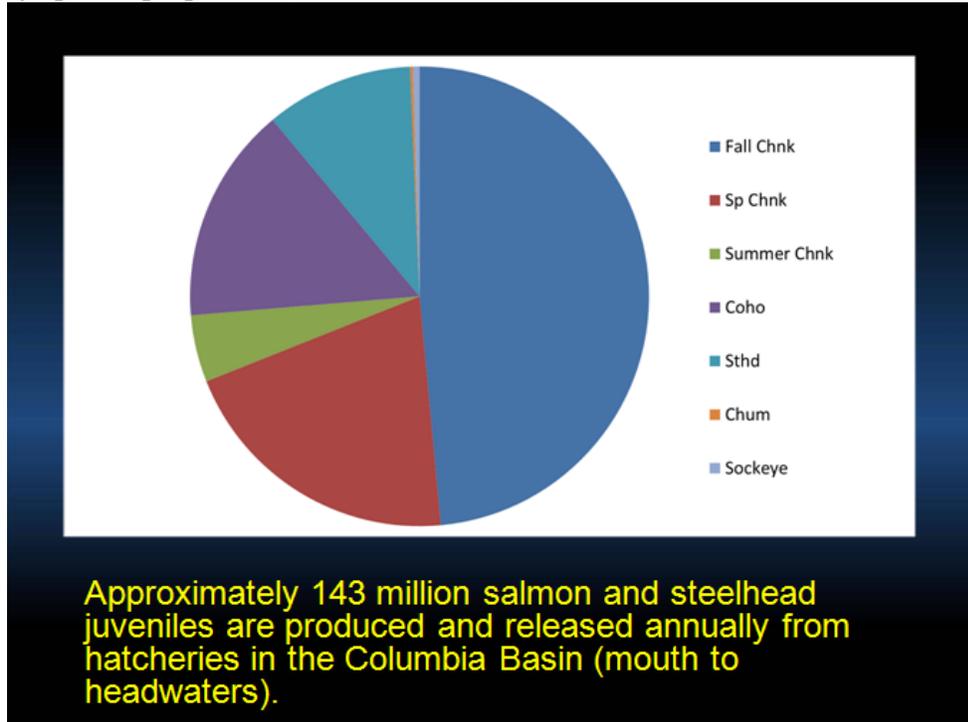


Figure 2. Primary purpose of artificial production of salmon and steelhead below Bonneville Dam (Nez Perce Tribe, Future of Our Salmon Conference, 2012).

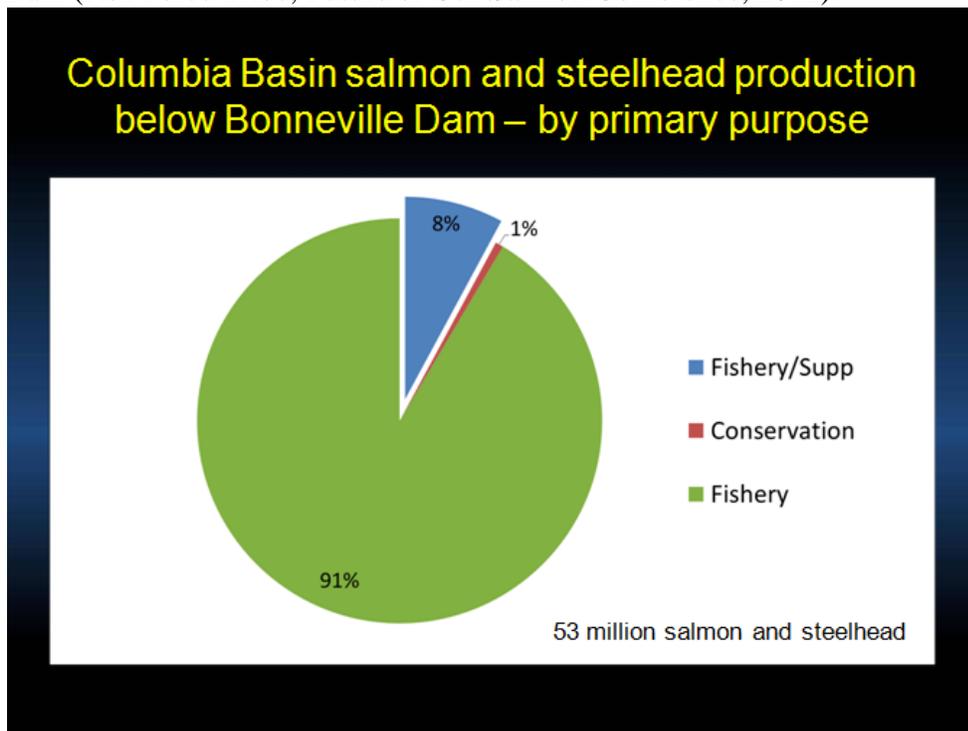


Figure 3. Primary purpose of artificial production of salmon and steelhead above Bonneville Dam (Nez Perce Tribe, Future of Our Salmon Conference, 2012).

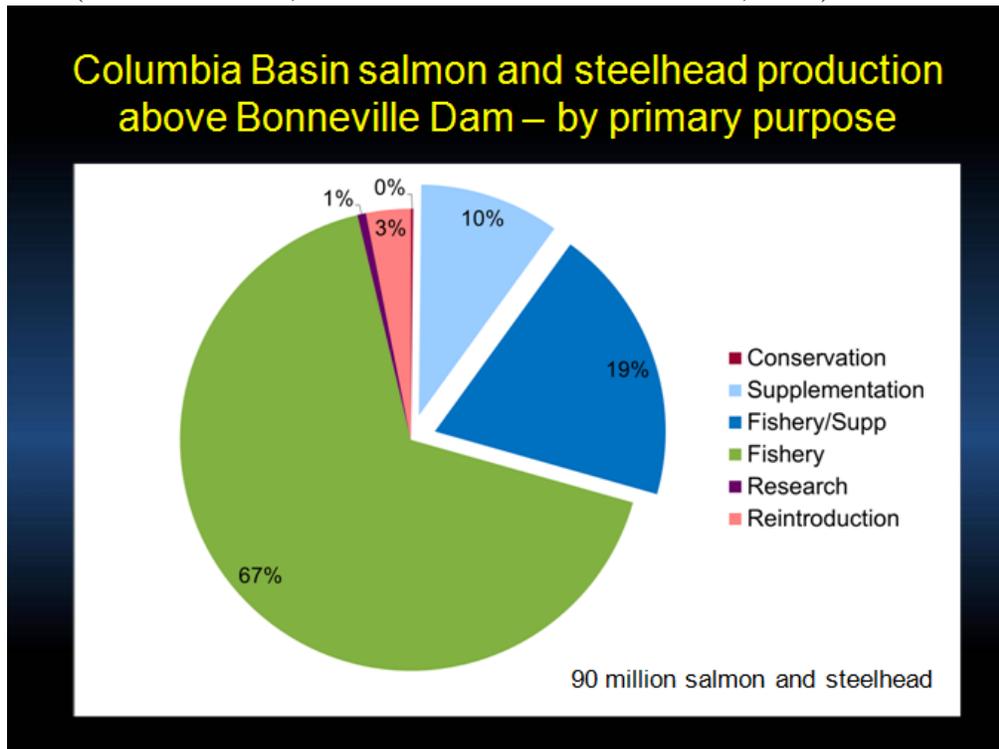
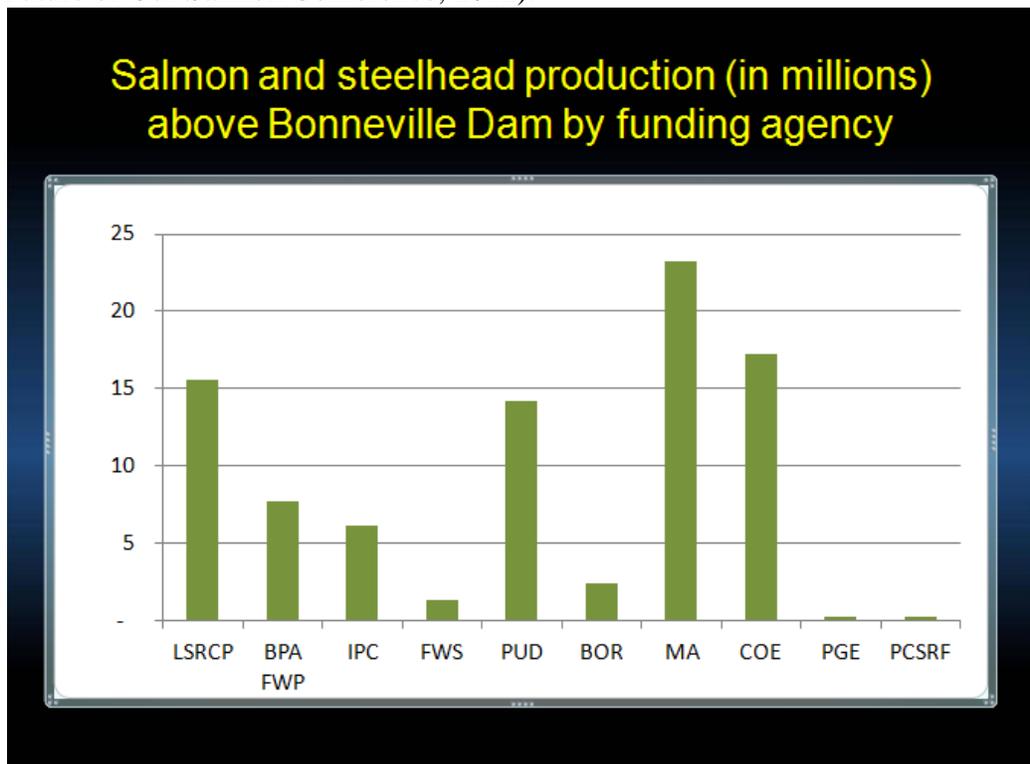


Figure 4. Estimate of salmon and steelhead production by funding agency (Nez Perce Tribe, Future of Our Salmon Conference, 2012).



Figures 5 – 8, Wild and hatchery anadromous fish comparisons from the ISAB’s review of the 2009 Fish and Wildlife Program (ISAB 2013-1).

Figure 5. Numbers of wild and hatchery upper Columbia spring Chinook salmon entering the Columbia Basin, 1980-2011. Upper Columbia spring Chinook are listed as endangered under the ESA. Data source: Joint Columbia River Management Staff 2012, Table 9.

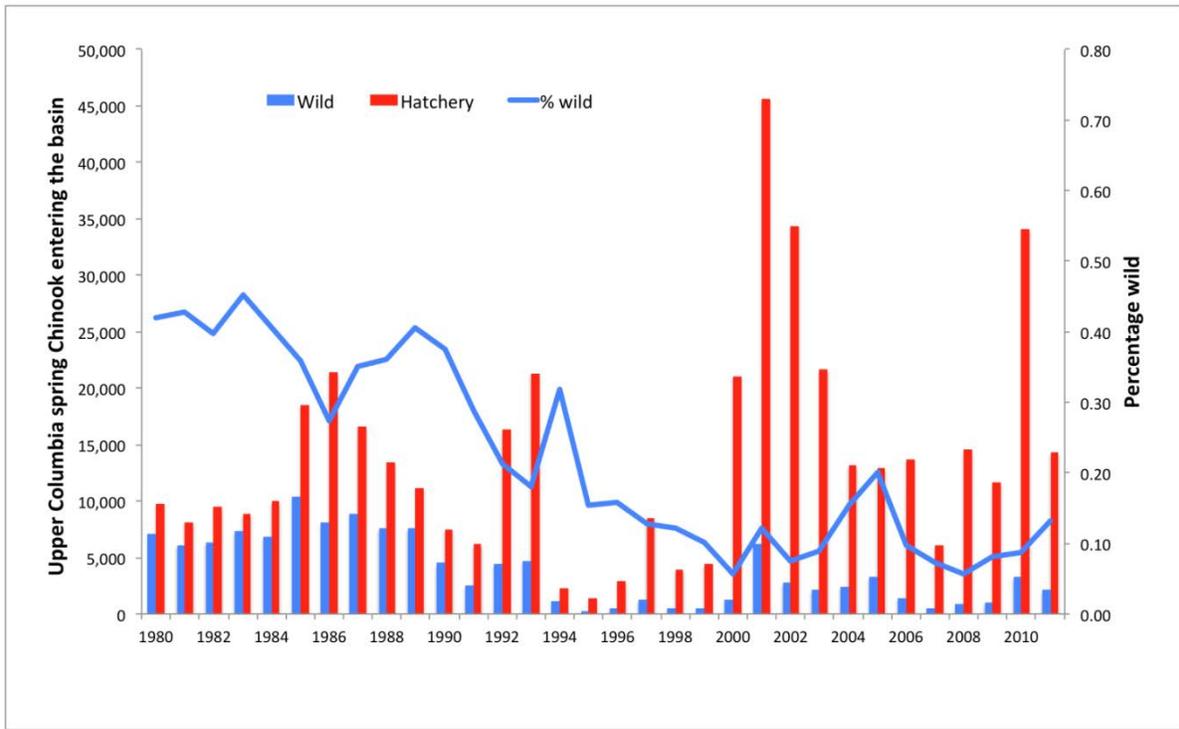


Figure 6. Numbers of wild and hatchery Snake River spring/summer Chinook salmon entering the Columbia Basin, 1980-2011. Snake River spring/summer Chinook salmon are listed as threatened under the ESA. Joint Columbia River Management Staff 2012, Table 8.

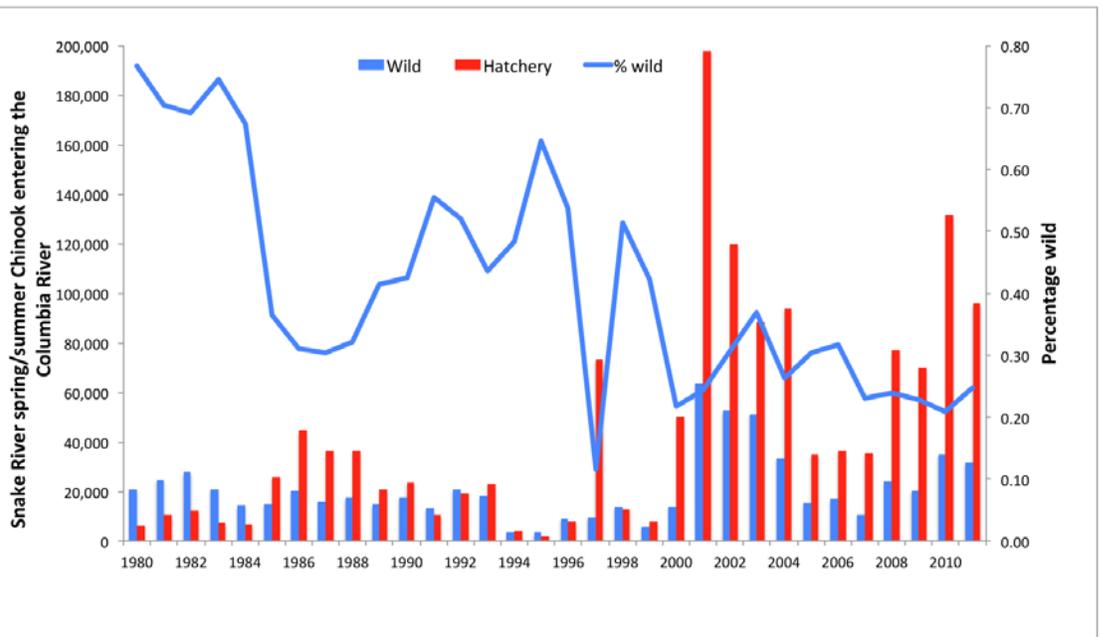


Figure 7. Numbers of wild and hatchery summer steelhead counted at Bonneville Dam during April-October, 1984-2011. Columbia River summer steelhead are listed as threatened under the ESA. Data source: Joint Columbia River Management Staff 2012, Table 12.

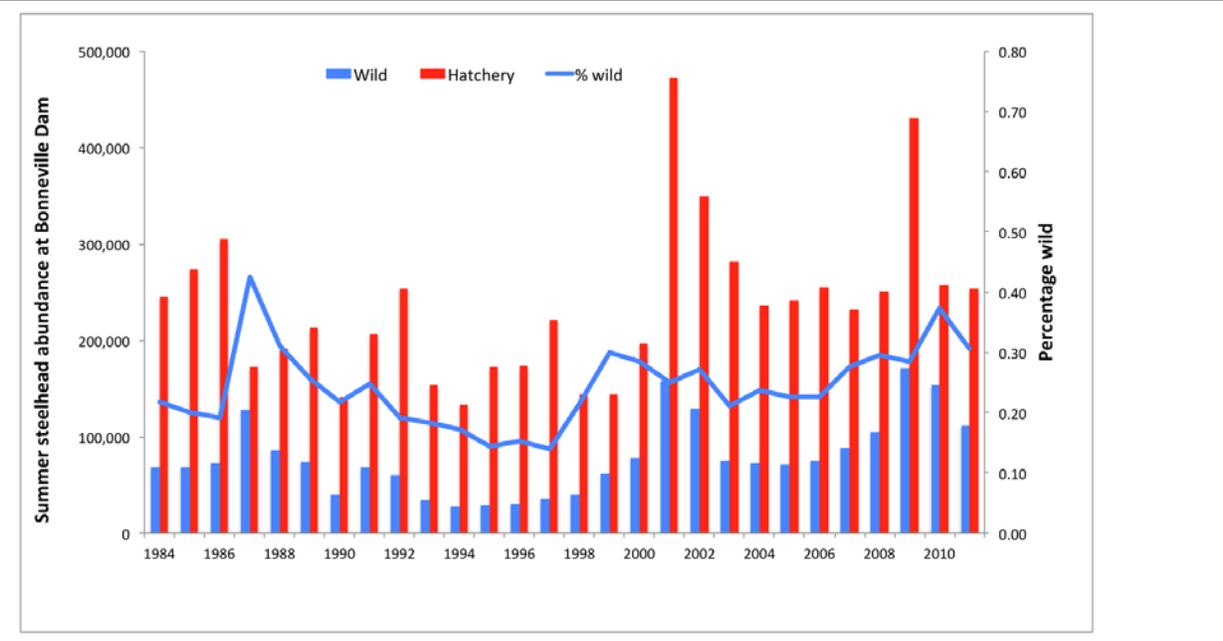
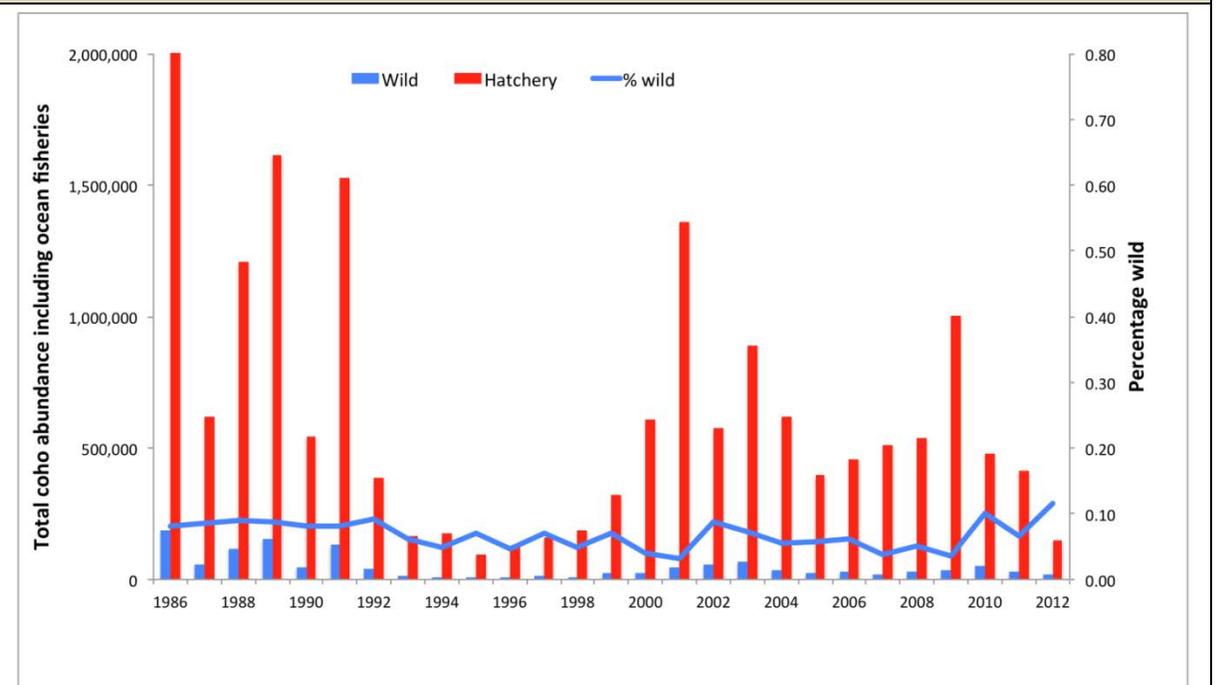


Figure 8. Numbers of wild and hatchery coho salmon returning to the Columbia Basin, 1986-2012. Values include ocean harvest mortalities, inriver harvests and escapement. Wild run may be slightly over-estimated because escapement counts include hatchery strays. Columbia River coho salmon are listed as threatened under the ESA. Data source: A. Hagen-Breaux, WDFW, personal communication.



Topic 2. Program amendment work schedule (draft Sept 4, 2013)

Committee/Council meeting dates	Work session dates, Est. duration	Program amendment topics/activities for work sessions	Important related dates
March, May, June, and July	Already completed	Have discussed with Council or Committee to date: <ul style="list-style-type: none"> • Legal framework for the Program • Current program framework • The monitoring and evaluation, research, and reporting framework • Program level objectives 	Request for recommendations: March 26, 2013
Aug 6, 7 Council meeting, Bend	August 7 1 hour	<ul style="list-style-type: none"> • Discuss amendment process work plan • Discuss the role of ESA, BiOps, Recovery Plans and Accords under the Columbia River F&W Program 	Recommendations period still open - closes September 17
Sept 10, 11 Council meeting, Coeur d'Alene	Sept 10 1 hour	<ul style="list-style-type: none"> • Artificial production under the program • Review next steps 	Recommendations period closes September 17 Draft FCRPS Biological Opinion, mid-September Comment period on recommendations begins September 18
Committee meeting (Council meeting is Oct 8, 9 Council meeting, Helena)	Oct 8 2 hours	<ul style="list-style-type: none"> • Discuss program document format, organization. • Summary of recommendations (Part I) <i>Note: we cannot frame decisions or alternatives until after the comment period closes on November 18.</i> 	Comment period on recommendations still open - closes November 18 Committee review and recommendation on geographic review
Committee meeting	Nov 5 3 hours	<ul style="list-style-type: none"> • Summary of recommendations (Part II) <i>Note: we cannot frame decisions or alternatives until after the comment period closes on November 18.</i> 	Comment period on recommendations closes November 18 NOAA situation

Committee/Council meeting dates	Work session dates, Est. duration	Program amendment topics/activities for work sessions	Important related dates
(Council meeting is Nov 5, 6 Boise)			assessment report due in the fall Council review and decision on geographic review
Committee meeting (Council meeting is Dec 10, 11 Council meeting, Portland)	Dec 9,10 Full day+	<ul style="list-style-type: none"> • Review comments • Review topic issues papers • Reach agreement on issues & revised program language • Discuss scheduling and procedures for public hearings and consultations (following release of draft amended program) 	
Committee meeting (Council meeting is Jan 14, 15 Council meeting)	Jan 13 & 14 1-2 days	<ul style="list-style-type: none"> • Review topic issues papers, • Reach agreement on issues & revised program language • Review draft plan for public hearings and consultations • Agree to move to full Council for release 	
TBD Special Council meeting	Late January 1-2 days	<ul style="list-style-type: none"> • Review the Committee recommendations, discuss draft program language 	
Feb 11, 12 Council meeting	Feb 11 Full day +	<ul style="list-style-type: none"> • Discuss draft amended program language • Decision to release draft program (tentative) 	
TBD Late February	Half – full day	<ul style="list-style-type: none"> • Hold in case need additional time for developing draft amended program 	
Mar 11, 12 Council meeting	TBD	<ul style="list-style-type: none"> • Take public comment on draft program • Hold hearings/consultations 	Public review underway, 60-day comment period
Apr 8, 9 Council meeting	TBD	<ul style="list-style-type: none"> • Take public comment on draft program • Hold hearings/consultations 	Public review underway, 60-day comment period
May 6, 7 Council meeting	Full day	<ul style="list-style-type: none"> • Review and discuss comments on draft program • Prepare final program 	

Committee/Council meeting dates	Work session dates, Est. duration	Program amendment topics/activities for work sessions	Important related dates
Jun 10, 11 Council meeting	Full day	<ul style="list-style-type: none"> Prepare final Program <i>Ex parte period: During the last 3 weeks of preparing the final program Council members and staff are not allowed to entertain comments from external sources.</i> 	
Jul 8, 9 Council meeting	Full day	Council work session Council adopt final program (tentative)	
Aug 5, 6 Council meeting	TBD	Hold for Council adoption of final program if not complete in July.	
Sept 9, 10 Council meeting		**Statutory deadline for adopting amended program**	September 17, 2014
Oct 7, 8 Council meeting	TBD	Council meeting Decision to approve findings (tentative)	

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