



Fish and Wildlife Commission Presentation Summary Sheet

Meeting date:

11/6/2020

Agenda item:

Hatchery Policy (C-3619) Review

Presenter(s):

Ron Warren, Director of Fish Policy

Background summary:

Over the course of the last two years, beginning at the June 15, 2018 Fish and Wildlife Commission (FWC) meeting, the department conducted a review of all sections and aspects of the Hatchery and Fishery Reform Policy (C-3619). The Commission's June 10–13, 2020 meeting, the fish committee members took the lead in drafting the initial language modifications based on the review the department conducted as well as comments received.

At the September 12, 2020 Commission meeting a draft Anadromous Salmon and Steelhead Hatchery Policy was approved for extended public input through October 12, 2020.

Staff recommendation:

Policy issue(s) and expected outcome:

Fiscal impacts of agency implementation:

Public involvement process used and what you learned:

Action requested and/or proposed next steps:

Draft motion language:

Post decision communications plan:

FISH AND WILDLIFE COMMISSION POLICY DECISION

POLICY TITLE: Anadromous Salmon and Steelhead Hatchery Policy

POLICY NUMBER: C-3619

Effective Date: TBD, 2020

Supersedes: Policy C-3619 Adopted November 5, 2009

See Also:

Approved by:

Washington Fish and Wildlife

Commission

Purpose

The purpose of the Anadromous Salmon and Steelhead Hatchery Policy (Policy) is to guide hatcheries and their individual rearing programs to advance the conservation and recovery of wild salmon and steelhead by implementing hatchery reform measures; to perpetuate salmon and steelhead in accordance with existing mitigation programs and agreements for permanently lost habitat; and to provide sustainable economic and stability benefits to recreational, commercial and tribal fisheries in Washington State as appropriate.

Authority Definition and Intent

This Policy is applicable to hatcheries operated by the Washington Department of Fish and Wildlife (Department) for programs that include anadromous salmon and steelhead. The intent of this Policy is to provide direction, goals, objectives, and actions to improve hatchery effectiveness and ensure compatibility between hatchery salmon and steelhead production and wild salmon and steelhead conservation **and recovery** in a manner that optimally achieves the stated purposes of this Policy.

General Policy Statement

The Department shall operate salmon and steelhead hatchery facilities in a manner that optimizes achieving achieves the multiple purposes of this Policy. The highest priority policy commitment shall be the conservation of natural resources, including the conservation and recovery of depressed coincident wild salmon and steelhead populations, the maintenance of wild populations currently in a healthy condition, the conservation of genetic resources found in hatchery populations, and providing critical ecological benefits such as prey to endangered Southern Resident Killer Whales and marine nutrient re-cycling. Hatchery programs shall also have the policy directive to safely perpetuate salmon and steelhead resources to support sustainable fisheries that are managed to achieve conservation goals for wild stocks, and to support reintroduction of salmon and steelhead above currently blocked habitat where feasible thereby providing important socio-cultural benefits and satisfying legal obligations. The Policy purposes shall be accomplished by establishing clear goals for each hatchery program, conducting scientifically defensible-operations, and using a well-informed and adaptive risk management program to make adaptive changes necessary to achieve hatchery program goals.

Hatchery programs are to be implemented as part of an “all-H” strategy that integrates hatchery, harvest, hydropower and habitat actions and allows for the recovery of depressed wild populations consistent with the federal Endangered Species Act (ESA). Although this Policy focuses on hatchery operations, in no way does it diminish the significance of habitat protection and restoration, nor does it replace or reduce the need for full restoration of currently damaged or impaired habitat. Hatchery programs should not detract from efforts to protect and rehabilitate currently damaged salmon or steelhead habitat capable of being improved for the benefit of both wild and hatchery salmon and steelhead. This Policy is also not intended to alter current harvest management policies, goals or strategies that pursue and implement mark-selective fishing on hatchery propagated salmon and steelhead.

Hatchery programs will be designated as one of the following in accordance with its primary purpose:

- Conservation Programs. Conservation hatchery programs are implemented with a conservation objective to achieve a net aggregate benefit for the diversity, spatial structure, productivity, and abundance of one or more depressed target wild salmon or steelhead populations that are in need of rebuilding or recovery to carrying capacity abundance.
- Mitigation Programs. Mitigation hatchery programs are implemented in accordance with existing agreements and programs to produce salmon or steelhead to offset adverse impacts from projects or events associated with permanently lost or impaired salmon or steelhead habitat.
- Fishery Supplementation Programs. Fishery supplementation hatchery programs are implemented with an objective to provide supplemental fishery benefits while allowing watershed-specific goals for the diversity, spatial structure, productivity, and abundance of coincident wild populations to be met.

It is recognized that there may be hatchery program initiatives that may serve more than one designation category. A hatchery program with a primary conservation goal of providing additional prey to endangered Southern Resident Killer Whales and a secondary objective of providing incidental fishery benefits to existing fisheries is an example of such a hatchery program initiative; another example is hatchery production supporting successful reintroduction to salmon and steelhead to their historic habitat currently blocked by impassable manmade barriers. Nothing in this designation section or other provisions of this Policy shall impede the consideration of such special initiatives.

The function of salmon and steelhead hatcheries is to produce fish. Hatchery programs may be implemented for the purpose of conservation, mitigation, or fishery supplementation. The goals of hatchery programs are their desired outcomes, which are biologically based (e.g., ratio of fish harvested to smolt produced, wild population abundance). The overall goal for conservation hatcheries is conservation. The overall goal for fishery supplementation hatcheries is harvest. The overall goal for mitigation hatchery programs is to replace a number of fish lost due to lost or impaired habitat. Hatchery programs that are implemented for special initiatives (e.g., Southern Resident Killer Whale prey enhancement) must be managed consistent with harvest and conservation goals. Each hatchery program must establish specific measurable goals based on the explicit needs of both the hatchery and the effected wild populations.

Salmon and steelhead released into the wild from many state operated hatcheries are subject to Treaty-reserved Indian fishing rights. The Department shall manage hatchery programs in a manner that is consistent with *U.S. v. Washington*, *U.S. v. Oregon*, and other applicable state or federal laws or State-Tribal fishery management agreements. The Department shall maintain a

strong Co-Manager working relationship with affected Tribes that is characterized by open and frequent communication, full consideration of scientific and policy perspectives, and a cooperative approach to decision-making on salmon and steelhead hatchery program matters that directly affect Treaty-reserved fishing rights.

Upon adoption of this Policy by the Commission, the Director is tasked to begin development of a joint policy agreement on salmon and steelhead hatchery programs with Tribal Co-Managers that has similar development and joint commitment provisions to those in “The Salmonid Disease Control Policy of the Fisheries Co-Managers of Washington State”.

Policy Guidelines

The Department shall apply the following policy guidelines in managing salmon and steelhead hatcheries to promote achievement of the purposes of this Policy.

1. It is recognized that there can be significant genetic risks to wild salmon and steelhead populations that accompany the operation of a salmon or steelhead hatchery program. Genetic risks can include direct negative effects from the interbreeding of hatchery-origin propagated salmon and steelhead with wild salmon and steelhead, such as reduction in genetic diversity or fitness, and indirect effects from disease transmission, competition, or predation that result in genetic selection. Genetic risks shall be minimized in accordance with the provisions of Hatchery Genetic Management Plans developed in accordance with Policy Guideline 4.
2. It is recognized that there can be significant ecological risks to wild salmon and steelhead populations that accompany the operation of a salmon or steelhead hatchery program. Ecological risks include predation, competition, disease transmission, and hatchery facility effects. Ecological risks shall be minimized in accordance with the provisions of Hatchery Genetic Management Plans in accordance with Policy Guideline 4.
3. It is recognized there can be many benefits from well-managed hatchery programs that propagate salmon or steelhead. Production from hatcheries can boost the recovery of depressed wild populations; maintain important genetic traits of salmon and steelhead; aid in reintroducing and re-establishing natural production above blocked habitat; provide ecosystem services such as marine nutrient transfer and Southern Resident Killer Whale support; and support sustainable fisheries.
4. A Hatchery Genetic Management Plan (HGMP) shall be developed for every anadromous salmon and steelhead hatchery program operated under the authority of this Policy and each hatchery program shall operate in accordance with the provisions of its HGMP. HGMP provisions should reflect a balance between minimizing genetic and ecological risks to coincident wild populations and providing for the ecological and societal benefits of hatchery propagated salmon and steelhead. Each HGMP shall be based on the best available science on the risks of hatchery production on wild salmon and steelhead. Evaluation of the risks should consider existing habitat, and genetic and ecological conditions in the geographic areas affected by that production. For each hatchery program that may potentially affect populations listed under the ESA, the **final** HGMP shall describe operations that are consistent with the National Marine Fisheries Service policy judgements on compliance with the provisions of the ESA, **after consideration by federal authorities on any initiatives proposed in accordance with this Policy**. For hatchery programs not subject to federal review under the ESA, the HGMP shall describe goals and operations consistent with the provisions of this Policy to balance the need to minimize

genetic and ecological risks to coincident wild populations while providing for the ecological and societal benefits of hatchery propagated salmon and steelhead. At a minimum, HGMP provisions should:

- a. be consistent with this Policy;
- b. address Policy guidelines 1 and 2 and 3 above;
- c. provide descriptions and plans for the normal content found in contemporary HGMPs in place in 2020, including sections on broodstock collection and mating protocols; juvenile rearing and release specifics; interbreeding with coincident wild populations; stray rates and interbreeding with adjacent wild populations; and monitoring, evaluation, and research provisions. (See Appendix 1 to this Policy document with a prototype HGMP table of contents as a contemporary example), and;
- d. provide for special initiatives such as the Southern Resident Killer Whale prey enhancement initiative.

Appendix 2 to this Policy shows an implementation schedule listing which facilities currently have an HGMP in place, a target date for updates appropriate to implement the provisions of this Policy, and a target date for the completion of a HGMP if there is not one currently in place.

The success of this policy guideline is measured by (1) how many HGMPs now include the requirements established by the policy guidelines; (2) the number of hatchery programs that have implemented these requirements; and (3) the successful application of monitoring and evaluation programs for these hatcheries. Hatchery programs will be guided by a risk management framework designed to achieve the specific goals of the programs. There are environmental and scientific uncertainties associated with hatchery risks, and ecological and economic uncertainty associated with hatchery benefits. For each hatchery program affected by this policy a monitoring and evaluation program will be maintained, if already present, or established, if not already present, to measure hatchery effectiveness. The details of each monitoring and evaluation program will be described as part of the HGMP requirements. Decisions associated with the operation of the hatchery programs will be adaptively managed, as data are collected and uncertainty is reduced, improving hatchery effectiveness.

The Director shall approve new HGMPs and changes to existing HGMPs to achieve a balance of risks and benefits as described in this Policy. Existing HGMPs shall remain intact as current policy direction as the process of integrating any changes associated with this Policy proceeds.

5. All chinook, coho and steelhead propagated in hatcheries shall be externally marked, except:
 - a. as modified by state-tribal agreements;
 - b. for conservation or other management purposes; or
 - c. to fulfill other research needs.
6. The Department shall strive to secure necessary funding to ensure that Department-operated hatchery facilities:
 - a. comply with environmental regulations for hatchery operations, including passage facilities, water intake screening, and pollutant and disease control systems; and
 - b. achieve the administrative necessities of this Policy, including those described in the Policy Guidelines and Adaptive Management sections.
7. A special, high level of protection from possible negative effects of hatchery programs to wild populations shall be provided to those wild populations that have not had substantial

genetic modification from past hatchery practices, are now in a healthy condition with little or no same species/run hatchery influence and exist in relatively high quality habitat enabling natural selection to climate change. A process for identifying such populations shall begin soon after the adoption of this Policy and the Commission shall consider approving a list of such populations on or before the first annual update report on the implementation of this Policy. The intent of this policy guideline is to provide an elevated level of protection to the relatively few populations that meet this premium status so as to prevent negative coincident hatchery-related impacts; there is no policy intent in this policy guideline to detract from or diminish conservation measures in place for ESA-listed or other salmon and steelhead populations.

8. The Department shall plan for and implement an expanded use of methods to separate hatchery and natural origin salmon and steelhead below natural spawning grounds where scientifically justified, logistically feasible, and agreed to with area-specific Tribal Co-Managers. These methods shall include various weir designs, alternative methods that are less intrusive than weirs, and emerging technology. Expanded use of such methods are to be included in the annual update to the Commission described below.

Adaptive Management

The Commission recognizes that there is considerable uncertainty in the how and when the implementation of the policy guidelines will secure the benefits from achieving the stated purposes of this Policy. In addition to the uncertainty of various scientific estimates of the negative effects of genetic and ecological risks, estimates of the positive ecological and fishery benefits, it is also recognized that there are likely to be unpredictable near term fluctuations in environmental factors that affect salmon and steelhead abundance, including changes in short-term environmental patterns, long-term climate change, and possible environmental disasters. and management implementation processes, Therefore, the Commission acknowledges that adaptive management procedures will be essential to achieving the purposes of this Policy and are expected to occur after proper evaluation and justification.

The Department will track policy implementation and provide the Commission with annual written reports updating progress. If the policy purposes, guidelines and directives, including hatchery program specific goals, are not being achieved, efforts will be made to determine why and to identify actions necessary to correct course. It is intended that adaptive management be applicable to both HGMP provisions and the language of this Policy. Based on monitoring and evaluation of whether implementation of HGMP provisions are achieving identified hatchery program goals and the purposes of this Policy, it is expected that the Department will change HGMP provisions to better achieve these goals and purposes. If evaluation of policy performance identifies that Policy provisions should be modified to better achieve the purposes of this Policy, or additional policy guidance needs to be specified, it is expected that such modifications will be considered by the Commission in a manner that is coordinated with Co-Managers and involves an open and transparent public process.

Sound adaptive management is enabled by proper scientific monitoring and evaluation. With regard to adaptively achieving goals stated in particular HGMPs, the stand-alone monitoring, evaluation and risk assessment plans described in each HGMP will guide adaptive management that achieves program goals by explicitly linking hatchery performance metrics to potential hatchery operation changes. With regard to more comprehensive monitoring and evaluations than described in individual HGMPs, within one year of adoption of this Policy, the Department shall provide written proposals for rigorous, consistent evaluation of the cumulative effects of hatchery programs and this policy over broad geographic regional areas and statewide. Such over-arching monitoring and evaluation

proposals shall cover a sufficient period of assessment so as allow for adaptive management on a broad scale. The Department shall seek funding for these proposals as a high priority matter.

It is expected that there will be changes to some hatchery programs in the immediate and long-term future as a result of the policy change to expand the Purpose statement and to specify a policy directive to optimizing a balance between the multiple purposes. It is important to align the purposes, goals, and objectives of this Policy and any such changes with state and federally adopted recovery and rebuilding plans. The Department shall meet with the Governor's Salmon Recovery Office and individual Salmon Recovery Boards to discuss the dynamic and adaptive nature of recovery planning and the best way to reach recovery targets identified in salmon and steelhead plans while also integrating and achieving the purposes and directives of this Policy. Recognizing the authority of the federal government in federal ESA implementation, the Department shall meet with the appropriate federal representatives to promote consideration of any hatchery production initiatives or other changes associated with implementing this Policy. The initiative to increase hatchery production for Southern Resident Killer Whale prey is the highest priority in initial discussions with federal representatives and Salmon Recovery Boards about integrating and aligning the provisions of this Policy. The Department shall include Tribal Co-Managers in all such efforts to coalesce salmon recovery policy implementation processes in areas of regional Co-Manager authority.

Appendices

Appendix 1. Definitions.

Conservation – Based on mandate of the Department (RCW 77.04.012), conservation is defined here as the preservation, protection, and perpetuation of Department trust resources. This includes management activities associated with fish and wildlife populations and their habitats, and ecological processes that sustain populations and habitats.

Harvest– The capture of live salmon or steelhead and their subsequent removal from their natural environment, generally for consumptive purposes.

Hatchery reform – Widespread, institutionalized changes to hatchery programs intended to reduce genetic or ecological risk to wild populations in comparison to pre-1999 practices.

Hatchery effectiveness – The ability of a hatchery program to achieve its goals.

Hatchery Program - For the purposes of this Policy, a hatchery program is the rearing and release of a single species or race of anadromous salmon or steelhead in a hatchery or hatchery complex.

Recovery - In referencing the recovery of wild salmon or steelhead, the word recovery is meant to include recovery planning, recovery activities, and the numerical increase in abundance up to established recovery goals.

Appendix 2. Prototype Example of a Table of Contents to a Hatchery Genetic Management Plan for a Washington State Hatchery Program.

EXECUTIVE SUMMARY

SECTION 1. GENERAL PROGRAM DESCRIPTION

- 1.1 Name of hatchery or program.
- 1.2 Species and population (or stock) under propagation, and ESA status.
- 1.3 Responsible organization and individuals
- 1.4 Funding source, staffing level, and annual hatchery program operational costs.
- 1.5 Location(s) of hatchery and associated facilities.
- 1.6 Type of program.

- 1.7 Purpose (Goal) of program.
- 1.8 Justification for the program.
- 1.9 List of program "Performance Standards".
- 1.10 List of program "Performance Indicators", designated by "benefits" and "risks."
- 1.11 Expected size of program.
- 1.12 Current program performance, including estimated smolt-to-adult survival rates, adult production levels, and escapement levels. Indicate the source of these data.
- 1.13 Date program started (years in operation), or is expected to start.
- 1.14 Expected duration of program.
- 1.15 Watersheds targeted by program.
- 1.16 Indicate alternative actions considered for attaining program goals, and reasons why those actions are not being proposed.

SECTION 2. PROGRAM EFFECTS ON NMFS ESA-LISTED SALMONID POPULATIONS AND NON-LISTED WILD SALMONID POPULATIONS. (USFWS ESA-Listed Salmonid Species and Non-Salmonid Species are addressed in Addendum A)

- 2.1 List all ESA permits or authorizations in hand for the hatchery program.
- 2.2 Provide descriptions, status, and projected take actions and levels for NMFS ESA-listed natural populations in the target area, as well as viable non-listed wild populations as appropriate.

SECTION 3. RELATIONSHIP OF PROGRAM TO OTHER MANAGEMENT OBJECTIVES

- 3.1 Describe alignment of the hatchery program with any ESU-wide hatchery plan (e.g. Hood Canal Summer Chum Conservation Initiative) or other regionally accepted policies (e.g. the NPPC Annual Production Review Report and Recommendations - NPPC document 99-15). Explain any proposed deviations from the plan or policies.
- 3.2 List all existing cooperative agreements, memoranda of understanding, memoranda of agreement, agency policies, or other management plans or court orders under which program operates.
- 3.3 Relationship to harvest objectives.
- 3.4 Relationship to habitat protection and recovery strategies.
- 3.5 Ecological interactions.
- 3.6 Relationship to existing state and federal adopted recovery plans and regional sustainability plans for wild salmon and steelhead, and associated goals, objectives, targets, measures, and actions. Explain any proposed deviations from the plan(s).

SECTION 4. WATER SOURCE

- 4.1 Provide a quantitative and narrative description of the water source (spring, well, surface), water quality profile, and natural limitations to production attributable to the water source.
- 4.2 Indicate risk aversion measures that will be applied to minimize the likelihood for the take of listed natural fish as a result of hatchery water withdrawal, screening, or effluent discharge.

SECTION 5. FACILITIES

- 5.1 Broodstock collection facilities (or methods).
- 5.2 Fish transportation equipment (description of pen, tank truck, or container used).
- 5.3 Broodstock holding and spawning facilities.
- 5.4 Incubation facilities.
- 5.5 Rearing facilities.
- 5.6 Acclimation/release facilities.
- 5.7 Describe operational difficulties or disasters that led to significant fish mortality.
- 5.8 Indicate available back-up systems, and risk aversion measures that will be applied, that minimize the likelihood for the take of listed natural fish that may result from equipment failure,

water loss, flooding, disease transmission, or other events that could lead to injury or mortality.

SECTION 6. BROODSTOCK ORIGIN AND IDENTITY

6.1 Source.

6.2 Supporting information.

6.3 Indicate risk aversion measures that will be applied to minimize the likelihood for adverse genetic or ecological effects to listed natural fish that may occur as a result of broodstock selection practices.

SECTION 7. BROODSTOCK COLLECTION

7.1 Life-history stage to be collected (adults, eggs, or juveniles). 7.2 Collection or sampling design.

7.3 Identity.

7.4 Proposed number to be collected:

7.5 Disposition of hatchery-origin fish collected in surplus of broodstock needs. 7.6 Fish transportation and holding methods.

7.7 Describe fish health maintenance and sanitation procedures applied.

7.8 Disposition of carcasses.

7.9 Indicate risk aversion measures that will be applied to minimize the likelihood for adverse genetic or ecological effects to listed natural fish resulting from the broodstock collection program.

SECTION 8. MATING

8.1 Selection method.

8.2 Males.

8.3 Fertilization.

8.4 Cryopreserved gametes.

8.5 Indicate risk aversion measures that will be applied to minimize the likelihood for adverse genetic or ecological effects to listed natural fish resulting from the mating scheme.

SECTION 9. INCUBATION AND REARING -Specify any management goals (e.g. “egg to smolt survival”) that the hatchery is currently operating under for the hatchery stock in the appropriate sections below. Provide data on the success of meeting the desired hatchery goals.

9.1 Incubation:

9.2 Rearing:

SECTION 10. RELEASE

10.1 Proposed fish release levels.

10.2 Specific location(s) of proposed release(s).

10.3 Actual numbers and sizes of fish released by age class through the program. 10.4 Actual dates of release and description of release protocols.

10.5 Fish transportation procedures, if applicable.

10.6 Acclimation procedures (methods applied and length of time).

10.7 Marks applied, and proportions of the total hatchery population marked, to identify hatchery adults.

10.8 Disposition plans for fish identified at the time of release as surplus to programmed or approved levels.

10.9 Fish health certification procedures applied pre-release.

10.10 Emergency release procedures in response to flooding or water system failure.

10.11 Indicate risk aversion measures that will be applied to minimize the likelihood for adverse genetic and ecological effects to listed fish resulting from fish releases.

SECTION 11. MONITORING AND EVALUATION

11.1 Monitoring and evaluation of “Performance Indicators” presented in Section 1.10.

11.2 Indicate risk aversion measures that will be applied to minimize the likelihood for adverse genetic and ecological effects to listed fish and unlisted wild populations resulting from monitoring and evaluation activities.

11.3 Risk management/assessment framework designed to achieve the specific goals of the programs based on the monitoring and evaluation program.

SECTION 12. RESEARCH

12.1 Objective or purpose.

12.2 Cooperating and funding agencies.

12.3 Principle investigator or project supervisor and staff.

12.4 Status of stock, particularly the group affected by project, if different than the stock(s) described in Section 2.

12.5 Techniques: include capture methods, drugs, samples collected, tags applied.

12.6 Dates or time period in which research activity occurs.

12.7 Care and maintenance of live fish or eggs, holding duration, transport methods.

12.8 Expected type and effects of take and potential for injury or mortality.

12.9 Level of take of listed fish: number or range of fish handled, injured, or killed by sex, age, or size, if not already indicated in Section 2 and the attached “take table” (Table 1).

12.10 Alternative methods to achieve project objectives.

12.11 List species similar or related to the threatened species; provide number and causes of mortality related to this research project.

12.12 Indicate risk aversion measures that will be applied to minimize the likelihood for adverse ecological effects, injury, or mortality to listed fish as a result of the proposed research activities.

SECTION 13. ATTACHMENTS AND CITATIONS

SECTION 14. CERTIFICATION LANGUAGE AND SIGNATURE OF RESPONSIBLE PARTY

ADDENDUM A. PROGRAM EFFECTS ON OTHER (AQUATIC OR TERRESTRIAL) ESA-LISTED POPULATIONS. (Anadromous salmonid effects are addressed in Section 2).

15.1 List all ESA permits or authorizations for USFWS ESA-listed, proposed, and candidate salmonid and non-salmonid species associated with the hatchery program.

15.2 Describe USFWS ESA-listed, proposed, and candidate salmonid and non-salmonid species and habitat that may be affected by hatchery program.

15.3 Analyze effects.

15.4 Actions taken to minimize potential effects.

15.5 References

HGMP Submission Legend

ESA Permitting Complete
Currently In Consultation
Not ESA Listed
Not Submitted
Pre-Consultation
Under Co-Manager Review

Appendix 3. Status and Schedule for Completion of Hatchery Genetic Management Plans for Washington State Hatcheries Applicable to revised Policy.

Status and Schedule for Completion of Hatchery Genetic Management Plans for Washington State Hatcheries

Region	Program/Facility	Species	Run	Consultation Status
1	Lyons Ferry	Chinook	Fall	Complete
1	Lyons Ferry - Wallowa Stock	Steelhead	Summer	Complete
1	Lyons Ferry - Wallowa Stock - On-Station	Steelhead	Summer	Complete
1	Lyons Ferry/Dayton Pond - Wallowa Stock	Steelhead	Summer	Complete
1	Tocuhet Spring Chinook	Chinook	Spring	Complete
1	Touchet Endemic (Wild Brood Program)	Steelhead	Summer	Complete
1	Tucannon	Chinook	Spring	Complete
1	Tucannon	Steelhead	Summer	Complete
1	Wallowa/Cottonwood Creek	Steelhead	Summer	Complete
2	Carlton Pond - MEOK	Chinook	Summer	Complete
2	Chiwawa	Chinook	Spring	Complete
2	Dryden Pond	Chinook	Summer	Complete
2	Methow	Chinook	Spring	Complete
2	Methow - Chewuch Acclimation Ponds	Chinook	Spring	Complete
2	Methow - Wells	Steelhead	Summer	Complete
2	Nason Creek	Chinook	Spring	Complete
2	Twisp	Steelhead	Summer	Complete
2	Twisp	Chinook	Spring	Complete
2	Wells - Chelan River Releases	Chinook	Summer	Complete
2	Wells - Mainstem releases	Chinook	Summer	Complete
2	Wenatchee - Chiwawa	Steelhead	Summer	Complete
3	Priest Rapids URB	Chinook	Fall	Complete
3	Ringold Springs - Wells stock	Steelhead	Summer	Complete
3	Ringold Springs Coho	Coho	Type-N	Complete
3	Ringold Springs URB	Chinook	Fall	Complete
4	Green River	Steelhead	Late Winter	Complete
4	Kendall Creek	Steelhead	Winter	Complete
4	Skykomish	Steelhead	Winter	Complete
4	Soos Creek	Steelhead	Summer	Complete
4	Soos Creek (& TU Des Moines Net Pen Co-op)	Coho	NA	Complete
4	Soos Creek - Marine Tech Lab (Ed Co-op)	Coho	NA	Complete
4	Soos Creek/Icy Creek	Chinook	Fall	Complete
4	Tokul	Steelhead	Winter	Complete
4	Wallace River	Chinook	Summer	Complete
4	Wallace River	Coho	NA	Complete
4	Wallace River - (Everett SSC (see Mukilteo) Net Pen (Co-op)	Coho	NA	Complete
4	Whitehorse Pond	Steelhead	Winter	Complete
5	Beaver Creek	Steelhead	Summer	Complete
5	Beaver Creek	Steelhead	Winter	Complete
5	Cathlamet Channel Net Pens	Chinook	Spring	Complete
5	Coweeman Ponds (Co-op)	Steelhead	Winter	Complete
5	Deep River Net Pen	Coho	Type-N	Complete
5	Elochoman River	Coho	Type-N	Complete
5	Grays River	Coho	Type-N	Complete
5	Kalama Falls	Chinook	Fall	Complete
5	Kalama Falls	Chinook	Spring	Complete
5	Kalama Falls	Coho	Type-N	Complete
5	Kalama Falls	Steelhead	Winter	Complete
5	Kalama Falls	Steelhead	Summer	Complete
5	Kalama Falls	Steelhead	WL	Complete
5	NF Toutle Hatchery	Chinook	Fall	Complete
5	NF Toutle Hatchery	Coho	Type-S	Complete
5	Salmon Creek (Kliline Pond)	Steelhead	Winter	Complete
5	SF Toutle (Coop)	Steelhead	Summer	Complete
5	Skamania - Rock Cr outplant	Steelhead	Winter	Complete
5	Skamania -onstation	Steelhead	Summer	Complete
5	Skamania -onstation	Steelhead	Winter	Complete
5	Washougal	Chinook	Fall	Complete
5	Washougal	Coho	Type-N	Complete
6	Dungeness	Chinook	Spring	Complete
6	Dungeness	Coho	NA	Complete
6	Dungeness	Steelhead	Winter	Complete
6	Dungeness/Hurd Creek	Pink	NA	Complete
6	Elwha	Chinook	Fall	Complete
6	Hood Canal Wild Steelhead Supplementation-McKernan	Steelhead	Winter	Complete
6	Hoodsport	Chinook	Fall	Complete
6	Hoodsport	Chum	Fall	Complete

HGMP Submission Legend

ESA Permitting Complete
Currently In Consultation
Not ESA Listed
Not Submitted
Pre-Consultation
Under Co-Manager Review

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6	Hoodsport	Pink	NA	Complete
4	Baker Lake	Coho	NA	In Consultation
4	Baker Lake	Sockeye	NA	In Consultation
4	Cedar River	Sockeye	NA	In Consultation
4	Issaquah	Chinook	Fall	In Consultation
4	Issaquah	Coho	NA	In Consultation
4	Marblemount	Chinook	Fall	In Consultation
4	Marblemount	Chinook	Spring	In Consultation
4	Marblemount	Chinook	Summer	In Consultation
4	Marblemount	Coho	NA	In Consultation
4	Marblemount Chum	Chum	NA	In Consultation
4	Reiter Ponds	Steelhead	Summer	In Consultation
4	UW Portage Bay	Chinook	Fall	In Consultation
4	UW Portage Bay	Coho	Fall	In Consultation
4	Wallace River	Chum	Fall	In Consultation
6	Bingham Creek	Chinook	Fall	Non-ESA Listed
6	Bingham Creek	chum	Fall	Non-ESA Listed
6	Bingham Creek	Coho	Fall	Non-ESA Listed
6	Bingham Creek	Coho	Late Winter	Non-ESA Listed
6	Bingham Creek	Steelhead	Winter	Non-ESA Listed
6	Bogachiel	Steelhead	Summer	Non-ESA Listed
6	Bogachiel	Steelhead	Winter	Non-ESA Listed
6	Bogachiel	Steelhead	Early winter	Non-ESA Listed
6	Forks Creek	Chinook	Fall	Non-ESA Listed
6	Forks Creek	Chinook	spring	Non-ESA Listed
6	Forks Creek	Chum	Fall	Non-ESA Listed
6	Forks Creek	Coho	Fall	Non-ESA Listed
6	Forks Creek	Coho	Late Winter	Non-ESA Listed
6	Forks Creek	Steelhead	Early winter	Non-ESA Listed
6	Humtulpis	Chinook	Fall	Non-ESA Listed
6	Humtulpis	Coho	Fall	Non-ESA Listed
6	Humtulpis	Coho	Late Winter	Non-ESA Listed
6	Humtulpis	Steelhead	Summer	Non-ESA Listed
6	Humtulpis	Steelhead	Early winter	Non-ESA Listed
6	Lk Aberdeen	Chinook	Fall	Non-ESA Listed
6	Lk Aberdeen	Coho	Fall	Non-ESA Listed
6	Lk Aberdeen	Steelhead	Winter	Non-ESA Listed
6	Lk Aberdeen	Steelhead	Summer	Non-ESA Listed
6	Mayr Brothers	Chinook	Fall	Non-ESA Listed
6	Mayr Brothers	chum	Fall	Non-ESA Listed
6	Mayr Brothers	Coho	Fall	Non-ESA Listed
6	Naselle	Chinook	Fall	Non-ESA Listed
6	Naselle	chum	Fall	Non-ESA Listed
6	Naselle	Coho	Fall	Non-ESA Listed
6	Naselle	Coho	Late Winter	Non-ESA Listed
6	Naselle	Steelhead	Early winter	Non-ESA Listed
6	Nemah	Chinook	Fall	Non-ESA Listed
6	Nemah	chum	Fall	Non-ESA Listed
6	Satsop Springs	Chinook	Fall	Non-ESA Listed
6	Satsop Springs	chum	Fall	Non-ESA Listed
6	Satsop Springs	Coho	Fall	Non-ESA Listed
6	Satsop Springs	Coho	Late Winter	Non-ESA Listed
6	Satsop Springs	Steelhead	Winter	Non-ESA Listed
6	Skookumchuck	Chum	Fall	Non-ESA Listed
6	Skookumchuck	Coho	Fall	Non-ESA Listed
6	Skookumchuck	Coho	Late Winter	Non-ESA Listed
6	Skookumchuck	Steelhead	Winter	Non-ESA Listed
6	Sol duc	Chinook	Summer	Non-ESA Listed
6	Sol duc	Coho	Summer	Non-ESA Listed
6	Sol duc	Coho	Fall	Non-ESA Listed
4	Kendall Creek	Coho	NA	Not Submitted
4	Whatcom Creek	Chinook	Fall	Not Submitted
5	Deep River Net Pen (SAFE)	Coho	Type-N	Not Submitted
5	Grays River	Chum	Fall	Not Submitted
5	Washougal (Duncan Creek)	Chum	Fall	Not Submitted
6	Deschutes (Squaxin Is) Tumwater Falls	Coho	NA	Not Submitted
5	Cowlitz	Chinook	Spring	Pre Consultation
5	Cowlitz	Coho	Type-N	Pre Consultation
5	Cowlitz	Cutthroat	Sea-Run	Pre Consultation

HGMP Submission Legend

ESA Permitting Complete
Currently In Consultation
Not ESA Listed
Not Submitted
Pre-Consultation
Under Co-Manager Review

Appendix 3. Status and Schedule for Completion of Hatchery Genetic Management Plans for Washington State Hatcheries Applicable to revised Policy.

Status and Schedule for Completion of Hatchery Genetic Management Plans for Washington State Hatcheries

5	Cowlitz	Steelhead	Summer	Pre Consultation
5	Cowlitz (lower + Mayfield NP)	Chinook	Fall	Pre Consultation
5	Cowlitz (lower Cowlitz/upper Cowlitz/Tilton)	Steelhead	WL	Pre Consultation
5	Lewis River	Coho	Type-N	Pre Consultation
5	Lewis River	Coho	Type-S	Pre Consultation
5	Lewis River (I-205 wild)	Chum	Fall	Pre Consultation
5	Lewis River (Speelyai)	Chinook	Spring	Pre Consultation
5	Merwin	Steelhead	Summer	Pre Consultation
5	Merwin	Steelhead	Winter	Pre Consultation
5	Merwin (Lewis)	Steelhead	WL	Pre Consultation
6	George Adams	Chinook	Fall	Pre Consultation
6	George Adams	Coho	NA	Pre Consultation
6	Mckernan	Chum	Fall	Pre Consultation
4	Glenwood Springs (LLTK)	Chinook	Fall	Under Co-Manager Review
4	Kendall (Nooksack) Chum - integrated	Chum	Fall	Under Co-Manager Review
4	Kendall Creek (NF Nooksack)	Chinook	Spring	Under Co-Manager Review
4	Samish	Chinook	Fall	Under Co-Manager Review
4	Whatcom Creek	Pink	NA	Under Co-Manager Review
4	Whatcom Creek (Kendall Cr)	Chum	Fall	Under Co-Manager Review
6	Chambers Creek	Chinook	Fall	Under Co-Manager Review
6	Hupp Springs	Chinook	Spring	Under Co-Manager Review
6	Minter Creek	Chum	Fall	Under Co-Manager Review
6	Minter Creek	Coho	NA	Under Co-Manager Review
6	Minter Creek/Hupp Springs	Chinook	Fall	Under Co-Manager Review
6	South Sound Net Pens	Chinook	Fall	Under Co-Manager Review
6	South Sound Net Pens	Coho	NA	Under Co-Manager Review
6	Tumwater Falls	Chinook	Fall	Under Co-Manager Review
6	Voights Creek	Chinook	Fall	Under Co-Manager Review
6	Voights Creek	Coho	NA	Under Co-Manager Review

Hatchery and Fishery Reform Policy

C-3619

Ron Warren
Director of Fish Policy



Overview of Briefing

- **Policy C-3619 Review**
 - **Anadromous Salmon and Steelhead Hatchery Policy Draft**
- **Overview of Public Comment**
- **Next Steps**



Policy C-3619 Review

- **Thorough Review of the Hatchery and Fishery Reform Policy**
 - **Science and Implementation**

- **Anadromous Salmon and Steelhead Hatchery Policy Draft**
 - **Process Modification Approved at the September meeting**
 - **Hatchery Policy Writing Group Provided Edits for Consideration**
 - **Fish Committee Review and Discussion (November 2nd)**



Public Comments September 14 through October 12 on C-3619

- Increase production of salmon and steelhead
- Open more hatcheries and reopen hatcheries that have been closed
- Decreased harvest opportunity and returns
- Results of previous policy are unclear
- Utilize more wild fish for brood stock
- Policy is “junk science”
- Concern about impact of dams
- Increased predation by pinnipeds
- Policy needs to be in alignment with the Statewide Salmon Recovery Strategy
- Lacks a direct policy commitment to aligning hatchery production with state and federally adopted recovery plans and rebuilding programs
- Encourage FWC to engage with Regional Salmon Recovery Organizations



Public Comments September 14 through October 12 on C-3619

- Revised policy mandates completion of HGMPs, removing internal accountability
- Policy creates a disconnect between hatchery management and fish science within the Department
- Policy should include the need for creating Statewide Hatchery Monitoring and Evaluation Plan
- Policy ignores WDFW science and implementation reviews
- Opens the door even wider on unsustainable increases in hatchery production
- WDFW should withdraw the DNS and complete an EIS
- Too many supplemental hatcheries, not enough resources to meet goals
- Data collected (CWT recaptures, pHOS, pNOB, etc.) are not analyzed and used



Next Steps C-3619

- **November 6, 2020 Commission Briefing**
- **Public Comment on this Policy**
- **Commission Consideration of Draft Language**
- **Approved Language on Webpage and News Releases Explicitly Requests Public Input**
- **Mid-November Meet with Co-Managers**
- **December 3 – 5 Meeting – Public Hearing and Decision**
 - **Considers Adoption of the Anadromous Salmon and Steelhead Hatchery Policy at**



Questions?

