

Record of Decision
for the Final Environmental Impact Statement
to Analyze Impacts of NOAA's National Marine Fisheries Service Proposed Approval of
Hatchery and Genetic Management Plans for spring Chinook salmon, steelhead, and
rainbow trout in the Upper Willamette River Basin Pursuant to Section 7 and Section 4(d)
of the Endangered Species Act

I. Introduction and Background

This Record of Decision (ROD) was developed by the National Marine Fisheries Service (NMFS) in compliance with decision-making requirements, pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended (40 CFR 1505.2). The purpose of this ROD is to document NMFS' decision regarding the most recently submitted Upper Willamette River HGMPs.

This ROD is designed to: 1) state NMFS' decision and present the rationale for that decision; 2) identify the alternatives considered in the final Environmental Impact Statement (EIS) in reaching the decision; and 3) state whether all practicable means to avoid or minimize environmental harm from implementation of the selected alternative have been adopted, and if not, why they were not (40 CFR 1505.2).

The U.S. Army Corps of Engineers (Corps), in collaboration with the Oregon Department of Fish and Wildlife (ODFW), submitted Hatchery and Genetic Management Plans (HGMPs) for all hatchery programs in the Upper Willamette River. NMFS is the federal agency responsible for administering the Endangered Species Act (ESA) for spring Chinook salmon and winter steelhead, which are listed as threatened species under the ESA in the Upper Willamette River. NMFS' ESA §4(d) regulations allow the Corps to apply for a take exemption for the operation of their hatchery programs which affect ESA-listed threatened salmon and steelhead. Under the Proposed Action, NMFS would evaluate the programs under section 7 of the ESA and issue an Incidental Take Statement. In addition, an evaluation and determination would be made for applicable HGMPs under Limit 5 of the 4(d) Rule. The HGMPs would be authorized under section 4(d) of the ESA, and as part of the proposed action the programs would continue to be funded and implemented by the Corps and ODFW.

II. Alternatives Considered

Alternative 1 (No-action)

The No-action Alternative is the continuation of the existing hatchery programs for spring Chinook salmon, summer steelhead, and rainbow trout in the Upper Willamette River Basin. These hatchery programs are currently being managed under the mandates of NMFS' 2008 ESA Biological Opinion for the Willamette Project (13 multi-purpose federal dams in the Upper Willamette River Basin). The one exception would be implementation of Reasonable and Prudent Alternative (RPA) 6.2.2 related to genetically integrated hatchery broodstocks. This RPA action would not be implemented under Alternative 1 for the spring Chinook salmon hatchery programs. Hatchery fish are released into the Molalla, North Santiam, South Santiam, McKenzie, Middle Fork Willamette, and Coast Fork Willamette rivers.

Alternative 2 (Proposed Action/Preferred Alternative)

Alternative 2 is the proposed action where updated HGMPs recently submitted by the Corps to NMFS would be evaluated and approved under the ESA. The primary difference between this alternative and the No-action alternative is for the spring Chinook salmon programs where natural-origin salmon could be used for broodstock purposes under Alternative 2. Approval of the salmon HGMPs would implement RPA 6.2.2. Purposefully using natural-origin Chinook salmon for hatchery broodstock requires additional evaluation under the ESA and can only be authorized by an ESA section 10(a)(1)(A) permit or by limit 5 of the 4(d) Rule. This alternative evaluates this proposed management change of the salmon hatchery programs to allow natural-origin salmon to be included in hatchery broodstocks.

Alternative 3

Alternative 3 evaluates a reduced hatchery production scenario compared to the No-action Alternative, where only hatchery fish needed for reintroduction purposes above the federal dams are produced. This level of production would return sufficient numbers of adult salmon and steelhead for outplanting needs above the dams to seed available habitat, but would not support any fishery objectives.

Alternative 4

Alternative 4 evaluates eliminating all hatchery programs in the Upper Willamette River Basin and the consequences of this action compared to the No-action Alternative. No hatchery fish would be produced for any purpose.

Alternative 5

Alternative 5 evaluates increasing hatchery production in existing hatchery facilities up to maximum capacity in order to support enhanced fishery opportunities in the ocean and freshwater. The existing fishery impact limits authorized under the ESA would still apply under this alternative.

III. Public Involvement

NMFS formally initiated environmental review of the project through a Notice of Intent (NOI) to prepare an EIS in the Federal Register on December 15, 2016. This NOI announced a 45-day public scoping period, during which other agencies, tribes, and the public were invited to provide comments and suggestions regarding issues and alternatives to be included in the EIS.

A Draft EIS was subsequently produced and made available for a 66-day public comment period announced in the Federal Register on March 23, 2018. During the comment period, 10 comment letters were received from governmental agencies, non-governmental organizations, and the general public. Several commenters supported implementation of the proposed action. Other commenters questioned the use of hatcheries and raised concerns over the risks on natural-origin salmon and steelhead. NMFS reviewed every comment and revised the final draft of the EIS where appropriate. Appendix B of the Final EIS contains a summary of comments received on the draft documents and NMFS' responses.

The Final EIS was subsequently produced and made available for a 30 day public review period announced in the Federal Register on February 8, 2019. During the review period, one comment letter was received; and our responses to this letter are in the Attachment to this ROD. A review of the comments revealed that most of the issues had already been raised in public comments on the Draft EIS, and they had been addressed in the preparation of the Final EIS. The rest of the comments were considered during NMFS' decision-making process.

IV. Environmentally Preferred Alternative(s)

Alternative 2 was identified in the Final EIS as the preferred alternative. Alternative 4 would likely result in the lowest level of impacts to the human environment.

Alternative 4 evaluated terminating all of the hatchery programs in the Upper Willamette River. This alternative would result in the fewest negative impacts to the aquatic environment because water would not be used to raise hatchery fish, hatchery effluent would not be discharged into adjacent streams, and no hatchery fish would be released to create risks associated with genetic effects, competition, predation and disease. However, this alternative would also negatively affect the viability of the spring Chinook salmon evolutionarily significant unit (ESU), certain wildlife species that prey upon hatchery fish, reduce socioeconomic benefits to the human environment from fisheries catching hatchery fish, increase harvest impacts on some stocks of natural-origin Chinook salmon and steelhead, and decrease ecosystem nutrient benefits from hatchery fish carcasses decomposing in the natural environment.

V. Results of Consultations

NMFS conducted a consultation under section 7 of the ESA for the federal funding of the hatchery programs and potential issuance of a concurrence letter under limit 5 of the 4(d) Rule for the spring Chinook salmon HGMPs. A Biological Opinion reached a conclusion of “no jeopardy” for the proposed action on ESA-listed salmon and steelhead. Specific terms and conditions for the hatchery programs were specified for the Action Agencies in the Biological Opinion.

VI. Mitigation and Monitoring

The hatchery programs included in Alternative 2 require both mitigation of hatchery impacts on affected resources and monitoring and evaluation. These are described further below.

The primary reason why NMFS has identified Alternative 2 as the preferred alternative is the recently submitted HGMPs continue to implement best management practices, minimize hatchery risks, and for the spring Chinook programs aid in the conservation and recovery of the ESU, and provide fish for harvest. Further hatchery reforms are proposed in Alternative 2 that will lessen impacts even further than Alternative 1 (No-action alternative).

Alternative 2 is the culmination of hatchery reforms taken since spring Chinook salmon and winter steelhead were listed 20 years ago to mitigate impacts of all of the programs on natural-origin fish. Significant hatchery reforms and mitigation have

been implemented over the course of two hatchery ESA consultations completed in 2000 and 2008. RPAs and Terms and Conditions of these Biological Opinions have been implemented including elimination of hatchery programs, better management of broodstocks, reductions in hatchery fish spawning in the wild, changes in release numbers, locations, and life stages to reduce impacts on natural-origin fish.

Under Alternative 2, the proposed HGMPs will apply best management practices to minimize deleterious genetic effects and to ensure high survival of fish in the hatchery by monitoring and evaluation of fish health, implementing necessary precautionary and treatment actions, and releasing smolts that are healthy to reduce risks of pathogen transmission to natural fish, and minimize ecological interactions while emigrating to the ocean. Broodstock collection will occur to minimize impacts on natural-origin salmon and steelhead and for the salmon hatchery programs, incorporating natural fish into broodstocks will substantially reduce the impacts of hatchery fish on natural populations.

Monitoring and evaluation of the hatchery programs included in Alternative 2 will occur annually. The specific details of the monitoring is included in section 11 (and other applicable sections) of the HGMPs. Most of the annual monitoring is focused on evaluating the performance of the hatchery program. Evaluating impacts on natural-origin salmon and steelhead from the hatchery programs is focused predominately on measuring hatchery fish on the spawning grounds. In most areas, this basic information is collected on an annual basis. Other genetic and ecological impact studies occur from time to time as funding and the need arises.

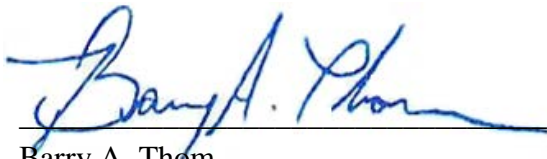
VII. Decision and Rationale for Decision

Alternative 2 was identified in the Final EIS as the preferred alternative. This alternative meets NMFS' statutory requirements for evaluating the HGMPs under the ESA, and also results in a balance among the affected resources in realizing benefits while minimizing the environmental and social impacts.

For the spring Chinook salmon programs, the HGMPs must meet the criteria of limit 5 of the 4(d) Rule to allow for the direct take of salmon for broodstock purposes. A range of alternatives was analyzed. However, Alternative 2, the Proposed Action/Preferred Alternative, met the criteria for limit 5, does not jeopardize ESA-listed salmon and steelhead in the Upper Willamette River, and meets the Corps' hatchery mitigation objectives to supply hatchery fish for recreational and commercial fisheries. Other alternatives may reduce impacts to ESA-listed salmon and steelhead overall. However, Alternative 2 provides important conservation and recovery benefits for the spring Chinook salmon ESU and provides for some harvest of hatchery fish.

Alternative 2 allows natural origin coho salmon to be collected for broodstock integration, which will reduce the genetic impacts of these programs on the ESU. The operation of the hatchery facilities will affect the adjacent rivers and streams but the water quantity and water quality impacts are limited in scope and relatively short-lived. The proposed releases of hatchery fish under Alternative 2 reduces impacts on the natural environment compared to the No-action alternative, while providing some socioeconomic benefits to recreational and commercial fisheries in the ocean and freshwater.

Through the EIS and the documentation in this ROD, NMFS considered the objectives of the proposed action and analyzed a range of alternatives that address the objectives of the proposed action, and the extent to which the impacts of the action could be mitigated. NMFS also considered public and agency comments received during the EIS scoping and review periods. In balancing the projected effects of the various alternatives presented in the EIS and the public interest with economic, technical, NOAA statutory mandates, and matters of national policy, NMFS has decided to implement Alternative 2. Consequently, NMFS concludes that the approved alternative provides reasonable, practical, and practicable means to avoid, minimize, or compensate for environmental harm from the action.



Barry A. Thom
Regional Administrator
West Coast Region
National Marine Fisheries Service

May, 21, 2019
Date

Attachment

Attachment:

**Responses to Comments on the FEIS
to Analyze Impacts of NOAA’s National Marine Fisheries Service Proposed Approval of
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Author	Comment #	NMFS Response
Western Environmental Law Center	1	Noted.
Western Environmental Law Center	2	Noted.
Western Environmental Law Center	3	Noted. As NMFS stated in our response on the DEIS and reiterated here, the summer steelhead HGMP is not the subject of a 4(d) limit determination; rather, it is a federal agency action (funding by the Corps) which is being evaluated under section 7 of the ESA. Therefore, the public review and comment procedures in the 4(d) rules do not apply to the summer steelhead program. We note that the Upper Willamette River summer steelhead HGMP is available on the websites of both the Corps of Engineers and the Oregon Department of Fish & Wildlife. If the commenter wishes to comment on the contents, they may contact those agencies or use the present commenting process under NEPA to express any concerns which would assist NMFS in its review.
Western Environmental Law Center	4	Noted. One of the RPA's in the 2008 Biological Opinion was for the agencies to update the salmon HGMPs to include criteria and guidelines for using natural-origin fish in hatchery broodstocks. Authorization of this potential action by NMFS requires a new consultation. This effort is in response to new HGMPs submitted by the Corps and ODFW. Our ESA and NEPA work on these hatchery programs over the last few years is in response to this request.
Western Environmental Law Center	5	Noted. We have used the cited studies in our analysis of the summer steelhead hatchery program in the UWR.

Western Environmental Law Center	6	Noted. The most recent summer steelhead HGMP, including some new actions and reforms, is the proposed action NMFS consulting on in the section 7 Biological Opinion. The EIS evaluates a range of alternatives, from terminating this program to status quo operations, and the effects on ESA-listed species.
Western Environmental Law Center	7	Noted. Returns of summer steelhead and winter steelhead fluctuate dramatically from year to year. The comment assumes an average return based upon one SAR survival. NMFS has evaluated and ecological and genetic effects of this hatchery program on ESA-listed winter steelhead in the UWR through the section 7 consultation.
Western Environmental Law Center	8	Noted.
Western Environmental Law Center	9	Noted. Under the approved FMEP for steelhead, catch and release is required on all unclipped winter steelhead. Impacts of current fishing in the UWR is within the exploitation rates permitted by NMFS for the FMEP.
Western Environmental Law Center	10	Noted. The purpose of the EIS was to disclose the effects of hatchery fish on the human environment, including ESA-listed salmon and steelhead, under a range of alternatives.
Western Environmental Law Center	11	Noted. The 2008 Biological Opinion specified the management of summer steelhead recycling program authorized by NMFS. The agencies are expected to abide by these requirements. The new proposed action and Incidental Take Statement of the new Biological Opinion will specify what recycling (if any) can occur for hatchery summer steelhead.
Western Environmental Law Center	12	Noted. See response #11.
Western Environmental Law Center	13	Noted.