

Finding of No Significant Impact for Authorization for NMFS' Determination that the Hatchery and Genetic Management Plan (HGMP) for Trinity River coho salmon satisfies the Endangered Species Act (ESA) Section 4(d) Rule.

National Marine Fisheries Service (NMFS)

Background

Proposed Action:

NMFS proposes to approve the Trinity River Hatchery (TRH) Coho Salmon Hatchery and Genetics Management Plan (HGMP) under the Endangered Species Act (ESA) 4(d) Rule, Limit 5, and the effects of this proposal are described in detail in the Trinity River Hatchery Coho Salmon HGMP Environmental Assessment (EA).

Alternatives Evaluated in the Environmental Assessment:

Alternative 1 (No-action) – Do Not Make a Favorable Determination under the 4(d) Rule

Alternative 2 (Proposed Action) – Make a Determination that the Submitted HGMP Meets the Requirements of the 4(d) Rule

Alternative 3 (Reduced Production Alternative) – Make a Determination that the Revised HGMP with Reduced Production Levels Meets the Requirements of the 4(d) Rule

Selected Alternative:

Alternative 2 (Proposed Action) – Make a Determination that the Submitted HGMP Meets the Requirements of the 4(d) Rule

Related Consultations:

NMFS completed ESA section 7 and Essential Fish Habitat (EFH) consultations on the proposed approval of the Trinity River Hatchery coho salmon HGMP and concluded that the effects of the HGMP would not jeopardize the continued existence of listed SONCC coho salmon and would not destroy or adversely modify designated critical habitat. NMFS determined that Pacific salmon EFH would be adversely affected, but that no conservation recommendations were needed in addition to the terms and conditions of the biological opinion. Because no ground disturbance is proposed, consultation with the State Historic Preservation Office is not needed. Trinity River Hatchery also produces Chinook salmon and steelhead, for which NMFS completed an EFH consultation under the Magnuson-Stevens Fishery and Conservation Management Act (MSA) and an ESA section 7 formal consultation in August 2018. NMFS concluded under the MSA that Reclamation's Chinook salmon and steelhead hatchery programs at Trinity River Hatchery would adversely affect EFH for Chinook salmon and coho salmon. NMFS concluded under the ESA that those programs would not jeopardize the continued

existence of ESA-listed SONCC coho salmon and would not destroy or adversely modify designated critical habitat.

Significance Review

The Council on Environmental Quality (CEQ) Regulations state that the determination of significance using an analysis of effects requires examination of both context and intensity, and lists ten criteria for intensity (40 C.F.R. § 1508.27). In addition, the Companion Manual for National Oceanic and Atmospheric Administration Administrative Order 216-6A provides sixteen criteria, the same ten as the CEQ Regulations and six additional, for determining whether the impacts of a proposed action are significant. Each criterion is discussed below with respect to the proposed action and any measures to reduce impacts and considered individually as well as in combination with the others

1. Can the proposed action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect, even if the effect will be beneficial?

The proposed action is not expected to result in significant adverse or beneficial effects to the human environment, including for SONCC coho salmon. All resources analyzed in the EA are expected to experience effects that are below the level of significance.

The proposed HGMP contains methods to decrease hatchery effects on coho salmon, which may improve the long-term growth and fitness of the Upper Trinity River population of SONCC coho salmon. Hatchery effects are expected to be decreased by the use of natural-origin broodstock from the Upper Trinity River, as recommended by the California Hatchery Science Review Group. Natural-origin fish that survive to spawning age contribute different life history traits that are more adapted to the natural environment than those of hatchery fish. By using natural-origin coho salmon as broodstock, important traits will be conserved in the hatchery population. The proposed release of 150,000 to 500,000 juvenile coho salmon annually in March is not expected to result in significant ecological effects to SONCC coho salmon or other salmonids.

2. Can the proposed action reasonably be expected to significantly affect public health or safety?

The proposed action is not expected to have a significant adverse impact on public health or safety. Operations at the Trinity River Hatchery (TRH) would continue normally, and hatchery workers follow all applicable state and federal laws and regulations for hazardous work, including use and disposal of chemical and biological agents. The TRH operators also follow state and federal water quality requirements to ensure that outflows meet water quality standards. See the Trinity River HGMP and EA for details on specific issues.

Hatchery-origin coho salmon that may be caught and eaten by tribal members or other fish and wildlife are likely to provide important nutritional benefits and are very unlikely to pose any public health or safety issues.

3. Can the proposed action reasonably be expected to result in significant impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

The proposed action is not expected to result in significant impacts to unique areas, such as historical or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas because it does not involve the construction of any new infrastructure. The Trinity River is designated as a Wild and Scenic River, but no significant impacts on the outstandingly remarkable values of the river are expected. There is currently no recreational or commercial fishery for coho salmon in the Trinity River or in the entire state of California.

The project area is listed as critical habitat for ESA-listed SONCC coho salmon; however, all habitat impacts are likely to be small under the proposed action. The effects of the hatchery program on critical habitat will be considered in the ESA section 7 consultation.

4. Are the proposed action's effects on the quality of the human environment likely to be highly controversial?

The proposed action is not expected to result in widespread controversy to the human environment. Although the Hoopa Valley Tribe has expressed concern about how a reduction in coho salmon production at the Trinity River Hatchery may affect their tribal fishing rights, the HGMP provides for a review of production goals after 2020. Further discussions about changing production metrics will take place once production and survival data from 2013-2020 have been analyzed.

The proposed action would likely support the coho salmon population in the Trinity River, which should bring future benefits to the human environment.

5. Are the proposed action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

The proposed HGMP is not highly uncertain and does not involve unique or unknown risks to the human environment. The proposed hatchery program includes methods to monitor and evaluate results and to allow adjustments for the benefit of the ecological and human environments.

6. Can the proposed action reasonably be expected to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

The proposed action is not expected to establish a precedent for future actions or represent a decision in principle. The HGMP contains metrics based upon published recommendations by the Pacific Northwest Hatchery Science Review Group, the California Hatchery Science Review Group, and from the Consent Decree signed by all parties in the *EPIC v. Lehr* settlement.

7. Is the proposed action related to other actions that when considered together will have individually insignificant but cumulatively significant impacts?

The proposed action is not expected to have cumulatively significant impacts. The EA evaluates the cumulative effects of other actions, including resource extraction, Trinity River water management, climate change, salmon and steelhead harvest, fire management, and watershed habitat rehabilitation efforts. The take of ESA-listed species will be limited to a maximum level likely to result in a no-jeopardy ESA determination when considering all existing conditions, all other permits, and other actions in the area affecting these conditions and permits. Any cumulative impacts are not expected to rise to the level of significance.

8. Can the proposed action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?

The proposed action is not expected to adversely affect any districts, sites, highways, structures, or objects listed in the National Register of Historic Places, or cause loss or destruction of significant scientific or historical resources. The HGMP does not contain major construction plans or alterations to resources. The proposed action would result in a range of coho salmon smolt production from 150,000 to 500,000, which may help to increase the natural Upper Trinity River population of coho salmon compared to historical returns. This may negligibly impact the cultural fishing practices of the Hoopa Valley and Yurok tribes. The broodstock collection and fish propagation goals set by the HGMP were written after extensive modeling showed a long-term benefit to the fitness of natural coho salmon stocks.

9. Can the proposed action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?

The proposed action is not expected to have a significant impact on endangered or threatened species or their critical habitat. The TRH would produce SONCC coho salmon, which is listed as threatened under the ESA. NMFS expects the benefits of the proposed integrated hatchery program to outweigh the risks. Other ESA-listed species (Southern DPS of Eulachon, Southern Resident Killer Whales, and the Southern DPS of Green Sturgeon) are unlikely to be adversely affected.

10. Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?

The proposed action is not expected to violate Federal, state, or local law or requirements imposed for environmental protection. The proposed action would limit the protections of the ESA's 4(d) rule, which would allow a listed species (SONCC coho salmon) to be collected for hatchery broodstock purposes. The proposed action would satisfy priority recovery actions identified by NMFS' recovery plan for SONCC coho salmon, follow recommendations by the California Hatchery Science Review Group to reduce coho salmon production, and continue to mitigate for lost spawning habitat above Lewiston and Trinity Dams. Historic hatchery coho salmon production of 500,000 resulted in returns that were, on average, more than 60 percent

higher than the escapement goals set by the U.S. Fish and Wildlife Service in 1983. The proposed action includes a range of coho salmon smolt production from 150,000 to 500,000, which could be adjusted using metrics in the HGMP and the best available science.

11. Can the proposed action reasonably be expected to adversely affect stocks of marine mammals as defined in the Marine Mammal Protection Act?

The proposed action is not expected to significantly adversely affect marine mammals. Seals, sea lions, and killer whales are present in the coastal regions of the project area. These species are protected by the Marine Mammal Protection Act, and Southern Resident Killer Whales are listed as endangered under the ESA. Because the Southern Resident Killer Whale's diet depends on salmon and they have been observed within the geographic area of the SONCC coho salmon ocean distribution (in the Pacific Ocean off northern California and southern Oregon), the proposed action is expected to slightly increase their food availability.

12. Can the proposed action reasonably be expected to adversely affect managed fish species?

The proposed action is expected to adversely affect natural coho salmon stocks, but the effects are not expected to be significant. Hatchery-origin fish released into the wild can prey upon natural-origin fish, compete with natural-origin fish for food and habitat, and present other risks. However, the proposed action utilizes a range of hatchery-origin coho salmon smolt production based on metrics in the HGMP, and NMFS does not expect this quantity of fish, when combined with other hatchery practices as well as monitoring and annual evaluation, to significantly affect natural coho salmon.

13. Can the proposed action reasonably be expected to adversely affect essential fish habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act?

The proposed action is not expected to have significant adverse effects on EFH. The proposed action does not contain any plans for permanent construction.

As a part of the hatchery spawning program, a weir will be used to collect broodstock from the Trinity River. The weir is permitted and installed under a separate, existing project, but its use would be extended to include TRH coho salmon broodstock collection. Effects from weirs include increased sedimentation, delayed or blocked adult salmonid migration, and disturbance to riparian vegetation. The effects from this weir are expected to be minimal and should not significantly adversely affect juvenile or adult salmonid migration.

14. Can the proposed action reasonably be expected to adversely affect vulnerable marine or coastal ecosystems, including but not limited to, deep coral ecosystems?

The proposed action is not expected to adversely affect vulnerable marine or coastal ecosystems, including deep coral ecosystems. The number of hatchery coho salmon released is not expected to be large enough to adversely affect marine or coastal ecosystems.

15. Can the proposed action reasonably be expected to adversely affect biodiversity or ecosystem functioning (e.g., benthic productivity, predator-prey relationships, etc.)?

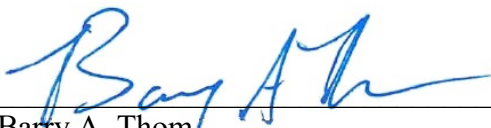
The proposed action may adversely affect ecosystem functioning but is not expected to have a significant effect. Although predation by hatchery-origin coho salmon upon natural salmonids is a concern, it is not expected to be significant as a result of the proposed released numbers.

16. Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

No introduced or nonindigenous species are expected to result from the proposed action. All coho salmon released into the Trinity River will be offspring from broodstock taken directly from the Upper Trinity River. Pathologists will certify fish health before release, which will also reduce the likelihood of disease.

Determination

In view of the information presented in this document and the analysis contained in the Environmental Assessment supporting the proposed action, it is hereby determined that NMFS' approval of the Trinity River Hatchery Coho Salmon Hatchery and Genetics Management Plan under the ESA 4(d) Rule, Limit 5, will not significantly impact the quality of the human environment as described above and in the supporting Environmental Assessment. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an environmental impact statement for this action is not necessary.



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

September 24, 2020
Date