UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, Washington 98115
September 30, 2016

MEMORANDUM FOR: Barry A. Thom
Regional Administrator

FROM: Stephen Freese
Acting Assistant Regional Administrator
Sustainable Fisheries Division

SUBJECT: Joint State/Tribal Hatchery and Genetic Management Plans for Chinook, Pink, Coho, and Fall Chum Salmon and Steelhead Production in Hood Canal, Washington, Under Limit 6 of the Endangered Species Act 4(d) Rule (50 CFR 223.203(6)) (65 FR 42422, July 10, 2000) - Decision Memorandum.

Issue

The Washington Department of Fish and Wildlife (WDFW), the Port Gamble S'Klallam Tribe, The Skokomish Tribe, the United States Fish and Wildlife Service (USFWS), and NOAA's National Marine Fisheries Service (NMFS) Northwest Fisheries Science Center submitted 10 Hatchery and Genetic Management Plans (HGMP) for salmon and steelhead hatchery programs in Hood Canal. The HGMPs were submitted for review and determination under Limit 6 of the ESA 4(d) Rule, 50 CFR 223.203(b)(6) (July 10, 2000; 65 FR 42422, as amended June 28, 2012, 70 FR 37160).

Recommendation

The NMFS Sustainable Fisheries Division (SFD) has evaluated the HGMPs (Table 1) and finds that the plans meet all of the requirements specified in Limit 6 of the ESA 4(d) Rule. SFD recommends that these HGMPs be approved, and the West Coast Region issue its written determination on the HGMPs to WDFW, the Port Gamble S'Klallam Tribe, The Skokomish Tribe, the USFWS, and NMFS provided that the plans are implemented in accordance with the section on implementation terms at the end of this memo.

Table 1. Proposed hatchery programs for Hood Canal salmon and steelhead.

Hatchery Program	Operator[2]	Program Purpose	Date Submitted
Hamma Hamma Fall Chinook Supplementation[1]	WDFW	Integrated Recovery	May 1, 2013
Hood Canal Steelhead Supplementation	NMFS	Integrated Recovery	November 28, 2012
Quilcene National Fish Hatchery Yearling Coho Salmon Production	USFWS	Segregated Harvest	July 15, 2013
Hoodsport Hatchery Fall Chinook	WDFW	Segregated Harvest	May 6, 2014
Hoodsport Hatchery Fall Chum	WDFW	Segregated Harvest	January 11, 2013
Hoodsport Hatchery Pink Salmon	WDFW	Segregated Harvest	July 15, 2013
Port Gamble Coho Net Pen	PGST	Segregated Harvest	February 28, 2013
Port Gamble Hatchery Fall Chum	PGST	Segregated Harvest	February 28, 2013
Quilcene Bay Coho Net Pen	ST	Segregated Harvest	September 18, 2013
Enetai Creek Hatchery Fall Chum	ST	Segregated Harvest	September 10, 2013

[1]This program was discontinued after the 2015 release year. However, NMFS will still evaluate the program in preparation for it being resurrected in the future.
[2]PGST = Port Gamble S'Klallam Tribe; ST = Skokomish Tribe.

Background

NMFS issued a final ESA 4(d) Rule adopting regulations necessary and advisable to conserve salmon and steelhead listed under the ESA (50 CPR 223.203 (65 FR 42422, July 10, 2000; amended June 28, 2005; 70 FR 37160). The ESA 4(d) Rule applies the prohibitions enumerated in section 9(a)(l) of the ESA, and also prescribes specific circumstances when the prohibitions will not apply, which are known as 4(d) limits.

NMFS received 10 HGMPs describing Hood Canal hatchery programs affecting listed Puget Sound Chinook salmon, Hood Canal summer chum salmon, and Puget Sound steelhead in 2012 and beyond (Table 1). All plans were submitted by the applicants for evaluation by NMFS for compliance with Limit 6 ESA 4(d) Rule criteria.

The programs proposed by the applicants are described in detail in the HGMPs (Long Live the Kings et al. 2013; Port Gamble S'Klallam Tribe 2013a; Port Gamble S'Klallam Tribe 2013b; Skokomish Tribe 2013a; Skokomish Tribe 2013b; USFWS 2015; WDFW 2013a; WDFW 2013b; WDFW 2014; WDFW and LLTK 2012). Aspects of all 10 programs are ongoing; portions of the Hood Canal Steelhead Supplementation and the Hamma Hamma Fall Chinook Salmon Supplementation programs have been discontinued (see Attachment 1 for details). Both of these programs are designed to preserve and bolster the natural spawning abundance of the native Hood Canal populations and contribute to recovery of the listed species. The remaining eights programs are operated for harvest augmentation purposes. The proposed hatchery programs are consistent with the Puget Sound Salmon Recovery Plan (SSPS 2005) and the Hood Canal Summer Chum Salmon Recovery Plan (HCCC 2005). These recovery plans were approved by NMFS to protect and restore Chinook and summer chum salmon populations across their range in Puget Sound (NMFS 2006; NMFS 2007).

As part of the proposed programs, monitoring and evaluation would be implemented to assess their performance in meeting population conservation or harvest augmentation objectives, and their effects on ESA-listed natural-origin Chinook salmon, summer chum salmon, and steelhead. Information gained through monitoring and evaluation will be used to assess whether the impacts of the programs on listed fish are as expected. Review of the HGMPs by NMFS and applicants will occur annually to evaluate whether assumptions regarding HGMP effects and analyses remain valid, and whether the objectives of the HGMPs are being accomplished.

Discussion

Controversial Issues

The 10 programs described in the HGMPs are not controversial, and none are the subject of on-going or pending litigation. The programs are not new, with durations of operation ranging from 9 to 115 years. The HGMPs describing the programs incorporate best management practices and hatchery reforms considered necessary to provide for program operation while minimizing potential risks to ESA-listed species.

Public Review and Comment

On March 3, 2016, NMFS published in the Federal Register notification of the availability of its ESA 4(d) Rule proposed evaluation and pending determination (PEPD; Attachment 2) for the 10 HGMPs for public review and comment (81 FR 11192). A draft Environmental Assessment (EA; Attachment 3), assembled by NMFS to evaluate compliance of any NMFS ESA 4(d) Rule determination regarding the HGMPs with the National Environmental Policy Act (NEPA), was made available for public review at the same time, as announced in the same notice. The public comment period was open from March 3, 2016, to April 4, 2016. During the public comment period, NMFS received comments from one commenter (see Appendix A to Attachment 3 for the comments and NMFS responses).

None of the comments raised issues that required substantive modification of the NMFS 4(d) or NEPA documents. There was therefore no need for revisions to the documents to clarify, correct, or refine the description of the Proposed Action or evaluation of effects based on comments received (some edits were made as a result of final internal review).

Evaluation of Federal Actions under the ESA Section 7 and the Magnuson-Stevens Act Essential Fish Habitat

NMFS Sustainable Fisheries Division (SFD) prepared an ESA section 7 biological opinion to evaluate the effects of the action on listed salmonids (Attachment 1). As described in SFD's biological opinion, the approval of the HGMPs is not likely to jeopardize the continued existence of listed Puget Sound Chinook salmon, Hood Canal Summer Chum Salmon, or Puget Sound steelhead, nor result in the destruction or adverse modification of their critical habitat.

Adequate measures are described to monitor the performance and effects of the programs, including the viability status of the affected listed Chinook salmon and steelhead populations, proportion of natural and hatchery fish reaching natural spawning areas, and the survival to adult return of hatchery fish released through the programs. The Federal action is NMFS'

determination of whether or not the HGMPs meet ESA 4(d) Rule criteria and qualify for limits on section 9 take prohibitions. Included in this consultation is funding of some of the programs by the Bureau of Indian Affairs.

Certification by General Counsel, Northwest Section, of their review of the opinion is on file (see ledger). The effects of take associated with implementation of Hood Canal hatchery salmon production on the Hood Canal Summer Chum salmon ESU were previously evaluated and authorized by NMFS through a separate ESA section 7 consultation process (NMFS 2002).

The SFD also considered the potential effects of the proposed action on other ESA-listed species. We determined that the proposed action would have no effect on southern resident killer whales, because the number of fish released by the programs represents a very small proportion of the United States and Canadian-origin salmon that could serve as prey for killer whales.

The SFD also analyzed the effects of the actions on Essential Fish Habitat (EFH) under the Magnuson-Stevens Act; the EFH analysis is included in Attachment 1. We determined that the effects of the action on EFH are likely to be within the range of effects considered in the ESA portion of the opinion, and concluded that the proposed actions are not likely to adversely affect Pacific salmon EFH. There will be minimal, if any, disturbance of vegetation, and negligible harm to Pacific salmon spawning and rearing habitat, and to water quantity and water quality. What small adverse effects on EFH might occur as a result of facility operations (hatchery intake structure and screening) would be adequately addressed by the protocols described in the HGMPs, and the Reasonable and Prudent Measures and Terms and Conditions included in the ESA section 7 biological opinion. NMFS and BIA shall ensure that these measures and terms and conditions are carried out. A statutory response requirement from the hatchery program operators was included with this general conservation recommendation.

Evaluation of HGMPs under the ESA 4(d) Rule

The NMFS SFD determined that the HGMPs meet all of the requirements in Limit 6 of the ESA 4(d) Rule. See Attachment 2 for our evaluation of how the HGMPs meet the Limit 6 requirements.

Evaluation of NMFS' Proposed Determination under NEPA

The SFD, for purposes of complying with NEPA, published an EA to evaluate whether NMFS' proposed determination would result in significant environmental impacts and necessitate an EIS. SFD drafted an EA that considered the effects of the proposed action on the human environment. As alternatives to the proposed action, the EA also evaluated the effects of closing the programs, and effects of reducing the number of pink and coho salmon produced by the programs.

As mentioned above, the EA was made available for public comment. WDFW provided comments pertaining to technical errors in NMFS' draft EA. We addressed the comments per our responses to comments appended to the final EA. The SFD prepared a Finding of No Significant Impact (FONSI). The final EA, with changes from the draft EA marked, and the FONSI are provided as Attachment 3.

Implementation Terms

The HGMPs include performance standards and indicators designed to identify, monitor, and evaluate the effects of the salmon hatchery actions on listed fish, and performance of the hatchery programs in meeting program objectives. Monitoring actions proposed to evaluate the performance indicators are identified in sections 1.0 and 11.0 of the HGMPs. NMFS supports the collection and the reporting of the results of the identified monitoring and evaluation activities to determine the performance and effects of the actions.

To help ensure consistency with the NMFS effects findings and ESA determinations for the proposed hatchery actions, the applicants must comply with the following implementation terms in operating the programs described in the HGMPs. These terms respond to monitoring, take accounting, and reporting regulations for hatchery actions specified in subparagraphs 5(ii) and 5(iii) of Limit 5 of the ESA 4(d) Rule, and are applied to hatchery actions under Limit 6.

1. Monitor the abundance, diversity, spatial structure, and productivity of the mid-Hood Canal Chinook salmon population relative to recovery plan objectives to guide decisions regarding termination, adjustment, or continuation of the Hamma Hamma Fall Chinook Salmon Supplementation Program.

    a. Conduct surveys/assessments to determine the migration timing, abundance, distribution, and origin (hatchery and natural) of Chinook salmon spawning naturally.

    b. Limit the natural-origin broodstock used in the Hamma Hamma Chinook Salmon Supplementation program to 33 percent of the escapement estimate for the mid-Hood Canal Chinook Salmon population.

    c. Limit the most recent five-year average pHOS to no more than 30 percent in the Hamma Hamma River when abundance for the mid-Hood Canal Chinook salmon population exceeds the critical threshold value of 200 natural-origin fish. The average should only include the most recent five-years in which the pHOS restriction applies (i.e., when natural-origin abundance exceeds 200 fish).

2. Monitor the annual abundance and productivity of the Hood Canal steelhead and summer chum salmon populations to identify trends in these viability parameters relative to Hood Canal Hatchery program-origin salmon escapement and juvenile fish production levels.

    a. Use current monitoring data and/or conduct new monitoring as necessary to assess juvenile carrying capacity for the action area based on current habitat conditions.

    b. Conduct surveys/assessments of coho, fall chum, and pink salmon to monitor and report on any redd superimposition or spawning site competition observed where listed Chinook and summer chum salmon and steelhead spawn naturally.

    c. Provide annual estimates of recruits per spawner, escapement, straying, and harvest of hatchery fish by program.

d. Maintain the percentage of Hoodsport hatchery Chinook salmon below the HSRG guideline of 5 percent of the total spawners in the Hamma Hamma, Dosewallips, and Duckabush Rivers.

3. Monitor hatchery program effects on listed fish

   a. Conduct surveys/assessments of coho, fall chum, and pink salmon to monitor and report on any redd superimposition or spawning site competition observed where listed Chinook and summer chum salmon and steelhead spawn naturally.

   b. Immediately release unharmed any listed salmon or steelhead incidentally encountered in the course of salmon broodstock collection operations at the point of capture. Record the number, location, and condition of any listed salmon or steelhead encountered during collection.

   c. Notify NMFS's Sustainable Fisheries Division (SFD) in advance of any change in hatchery program operation and implementation that potentially would result in increased take of ESA-listed species.

   d. Notify NMFS as soon as any take thresholds are exceeded within two days of exceedance

4. Maintain annual releases of juvenile salmon consistent with the maximum abundance levels described in the proposed HGMPs.

   e. Maximum releases should not exceed 10 percent of the proposed release numbers.

   f. Releases of yearling Chinook and coho salmon should not occur prior to April 15th.

5. Annually report:

   a. Numbers, sizes, tag/mark information, locations and dates of hatchery fish releases

   b. Results of monitoring and evaluation activities

   c. Adult return numbers by fish origin to any natural spawning area and to hatchery release sites

   d. A quantitative assessment of take for each listed species during monitoring and evaluation activities, and broodstock collection

   e. Analyses of any scientific research data collected in direct association with the hatchery programs

   f. Documentation of any problems that may have arisen during conduct of the authorized activities

   g. A statement as to whether or not the activities had any unforeseen effects.

Consistent with subparagraph 5(vi) of Limit 5 of the ESA 4(d) Rule, it is NMFS' intent to regularly communicate with the applicants regarding the effectiveness of the HGMPs in meeting performance standards, including the programs' effects on listed salmon and steelhead

population viability. All reports, as well as all other notifications required through the 4(d) determination, should be submitted to NMFS, SFD on or before April 1st. Reports shall be submitted either electronically or by post to the SFD point of contact for this Opinion:

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NMFS – Sustainable Fisheries Division
Anadromous Production and Inland Fisheries Branch
1201 N.E. Lloyd Boulevard, Suite 1100
Portland, Oregon 97232

Summary

NMFS SFD concludes that the HGMPs provided by WDFW, the Port Gamble S'Klallam Tribe, the Skokomish Tribe, the USFWS, and NMFS meet all of the requirements for HGMPs under Limit 6 of the ESA 4(d) Rule. As described above, all of the necessary administrative and biological requirements have been met. SFD recommends that the programs described by the HGMPs qualify for limitation of take prohibitions pursuant to Limit 6 of the 4(d) Rule provided that they are implemented in accordance with the implementation terms and reporting requirements described in NMFS's letter of concurrence. SFD recommends that you concur with the implementation of the HGMPs.

Concurrence

I concur with your recommendation to approve WDFW, the Port Gamble S'Klallam Tribe, the Skokomish Tribe, the USFWS, and NMFS' implementation of the Hood Canal Chinook, pink, coho, and fall chum salmon, and steelhead HGMPs, provided the plans are implemented in accordance with the section on Implementation Terms described above.

Barry A. Thom
Regional Administrator

10/17/2016
Date

I do not concur with your recommendation to approve WDFW, the Port Gamble S'Klallam Tribe, the Skokomish Tribe, the USFWS, and NMFS' implementation of the Hood Canal Chinook, pink, coho, and fall chum salmon, and steelhead HGMPs.

Barry A. Thom
Regional Administrator

Date

cc (w/ attachments): Sharon Houghton (file number: WCR-2014-1688)
Charlene Hurst

Attachment 1: Section 7 Biological Opinion, including EFH and DQA analyses
Attachment 2: 4(d) Rule Limit 6 Evaluation and Recommended Determination Document
Attachment 3: Finding of No Significant Impact/Environmental Assessment

Literature Cited

HCCC. 2005. Hood Canal and Eastern Strait of Juan de Fuca Summer Chum Salmon Recovery Plan. Hood Canal Coordinating Council.

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NMFS. 2002. Endangered Species Act - Section 7 Consultation and Magnuson-Stevens Act Essential Fish Habitat Consultation. Biological Opinion on Artificial Propagation in the Hood Canal and Eastern Strait of Juan de Fuca Regions of Washington State. Hood Canal Summer Chum Salmon Hatchery Programs by the U.S. Fish and Wildlife Service and the Washington Department of Fish and Wildlife and Federal and Non-Federal Hatchery Programs Producing Unlisted Salmonid Species. National Marine Fisheries Service, Portland, Oregon. 285p.

NMFS. 2006. Final Supplement to the Shared Strategy's Puget Sound Salmon Recovery Plan. NMFS, Portland, Oregon. 47p.

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Port Gamble S'Klallam Tribe. 2013a. Port Gamble Coho Net Pens HGMP. Coho salmon *Oncorhynchus kisutch*, Quilcene stock. February 28, 2013. 29p.

Port Gamble S'Klallam Tribe. 2013b. Port Gamble Hatchery Fall Chum HGMP. Fall chum salmon, *Oncorhynchus keta*, Little Boston Creek stock (originally Finch Creek stock). February 28, 2013. 30p.

Skokomish Tribe. 2013a. Quilcene Bay Net Pen Program HGMP. Coho salmon, *Oncorhynchus kisutch*, Quilcene stock. September 18, 2013. 30p.

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WDFW. 2013a. Hoodsport Fall Chum HGMP. Chum Salmon (*Oncorhynchus keta*) Hood Canal. January 11, 2013. 53p.

WDFW. 2013b. Hoodsport Hatchery Pink Salmon Program (Segregated) HGMP. Pink Salmon (*Oncorhynchus gorbuscha*) Finch Creek/Hood Canal. January 11, 2013. 49p.

WDFW. 2014. Hoodsport Hatchery Fall Chinook Program (Segregated) HGMP. Finch Creek Fall Chinook (*Oncorhynchus tshawytscha*). May 6, 2014. 53p.

WDFW, and LLTK. 2012. Hood Canal Steelhead Supplementation Project HGMP. Hood Canal Winter Steelhead (*Oncorhynchus mykiss*). November 28, 2012. 102p.