

THE NATIONAL MARINE FISHERIES SERVICE REPORT

Relationship of the Management Framework for California Coastal Chinook Salmon (CC Chinook) to the Re-initiated ESA Consultation for CC Chinook

Background: NMFS re-initiated its consultation on the effect of ocean salmon fisheries on the California Coastal Chinook Salmon (CC Chinook) Evolutionarily Significant Unit (ESU) in March 2023. Much higher than expected catch rates in the California commercial troll fishery and resulting Chinook catch was a major contributor to exceeding the ESA take limit for CC Chinook. Adjustments to ocean management models to account for these high catch rates proved insufficient and the fisheries continued to exceed the ESA take-limit for CC Chinook as well as impacts to other California Chinook stocks. Therefore, managers requested that the Council recommend direct measures to curtail the commercial fishery in order to stay within catch projections in 2023 and beyond (Agenda Item D.3.a Supplemental CDFW Report 1 November 2022). NMFS' 2023 guidance to the Council for CC Chinook stated *“given the pattern and magnitude of exceedance in recent years, in order to ensure ocean harvest rates do not exceed the postseason 16 percent age-4 KRFC harvest rate consultation standard: (1) 2023 ocean salmon fisheries should be managed for a buffered preseason age-4 KRFC rate of 10 percent and (2) managers should implement in-season management measures to ensure impacts remain within preseason projections.”* (Agenda Item D.3.b Supplemental NMFS Report 1 March 2023). Over the past year, NMFS has worked with the California Department of Fish and Wildlife to develop an in-season management framework including landing and possession limits for Chinook in the commercial troll fishery that will ensure take limits are not exceeded. NMFS intends to incorporate the framework as part of the proposed action in its re-initiated consultation as described in the following section.

Proposed Action: The Pacific Coast Salmon Fishery Management Plan (FMP) sets the context under which the PFMC develops management measures for the ocean salmon fisheries. The management measures apply to the period from May 16 of the current year through May 15 of the following year. Under the FMP, each salmon stock (or stock complex ¹) is managed subject to a conservation objective. Some stocks are managed using harvest control rules which set annual catch limits for the stock. Other stocks are managed under the Pacific Salmon Treaty (PST) and have objectives defined in the PST. ESA-listed species are managed under conservation objectives derived from ESA-consultations (conservation objective and consultation standard are often used

¹ The MSA National Standards provide a structure for classifying stocks in and around the fishery, and organizing stock complexes (50 CFR 600.310). Individual stocks can also be formed into stock complexes for management and assessment purposes. Stock complexes are groups of stocks that are sufficiently similar in geographic distribution, life history, and vulnerabilities to the fishery such that the impacts of management actions on the stocks are similar (PFMC 2022a). Stock complexes may be formed to facilitate management requirements. Each stock complex has one or more indicator stocks to establish annual harvest constraints based on status of those indicator stocks.

interchangeably for ESA-listed salmon). The conservation objective for an ESA-listed species equates to levels of incidental take that NMFS has determined (through ESA Section 7 consultation) are not likely to jeopardize the continued existence of the species (Table 3-1 in (PFMC 2022a)). In some cases, the allowable incidental take is combined with additional management measures (e.g. Sacramento winter-run Chinook salmon) to ensure that the consultation standard is achieved. The amount of fishing opportunity and the catch allowed in the fisheries managed under the FMP varies from year to year depending on stock-specific run sizes, catch anticipated in other fisheries, and fishery allocation decisions, but the fisheries are managed such their impacts are consistent with all of the conservation objectives under the FMP (PFMC 2022a).

Upon completion of the pre-season planning process in April of each year, the PFMC transmits recommendations for annual management measures to the Secretary of Commerce. If the measures are consistent with the Magnuson-Stevens Act (MSA) and other applicable law (e.g., ESA and obligations under the PST), NMFS promulgates the measures in a final rule (see 88 FR 30235; February 16, 2023) under the authority of the MSA. While the FMP and implementing regulations apply only in the Exclusive Economic Zone, salmon fisheries in state ocean waters (i.e., zero to three miles off the coast) are generally managed consistent with the federal regulations and impacts of the fisheries in state ocean waters are included in the calculations of impacts rates on ESA-listed species.

Successful management of the PFMC salmon fisheries requires monitoring to collect information on the fish stocks, the amount of effort for each fishery, the harvest that occurs in each fishery, the location and timing of harvest, and other biological and fishery metrics. In general, the information can be divided into that needed for in-season management and that needed for annual and long-term management. The data needs and reporting requirements for the fishery are described in the FMP (PFMC 2022a). Catch, escapement, and compliance with conservation objectives are reported annually in the PFMC report: Review of Ocean Salmon Fisheries (PFMC 2023b).

As of 2023, the best available data remain insufficient to develop an ESU-specific conservation objective for CC Chinook salmon (O'Farrell et al. 2022). Consequently, Klamath River Fall Chinook salmon (KRFC) remains the surrogate for CC Chinook salmon (PFMC 2022a). Under the proposed action, the ocean salmon fisheries will be managed so that the post-season ocean harvest rate (HR) for age-4 KRFC does not exceed 0.16. Included in the proposed action is a framework developed by CDFW and NMFS to achieve conservation objectives for California stocks of Chinook salmon. This framework (described in detail below), includes management tools (e.g., trip limits and in-season management) consistent with the provisions of the FMP. All other provisions required by the FMP and existing consultations would continue. We consider, under the ESA, whether or not the proposed action would cause any other activities and determined that it would not.

Framework to Achieve Conservation Objectives for California Stocks of Chinook Salmon

NMFS and CDFW developed a framework to ensure that the ocean salmon fisheries off the coast of California are managed so that they remain within the CC Chinook conservation objective. This framework is consistent with the CDFW supplemental reports (CDFW 2022; 2023), NMFS Guidance Letters (Thom 2022; Rumsey 2023), provisions of the Pacific Salmon FMP (PFMC and NMFS 2011; PFMC 2022b), and discussion between NMFS and CDFW. NMFS and CDFW will use adaptive management under the framework in response to performance and incorporate additional information as it becomes available.

The framework is focused on the ocean salmon fisheries off the coast of California (i.e., California KMZ, Fort Bragg, San Francisco and Monterey management areas) for the following reasons:

- 1) The majority of the KRFC harvest (and assumed impacts on CC Chinook salmon) in the ocean occurs in this area (PFMC 2023a),
- 2) The age-4 ocean HR for KRFC in this area has consistently exceeded pre-season projections in recent years (PFMC 2022c),
- 3) Contact-rate-per-unit-effort in this area have exceeded projections in recent years (Appendix B in PFMC (2021) and Appendix D in PFMC (2022c)),
- 4) The fisheries in this area have been managed primarily through season controls such as time and area restrictions (as opposed to use of landing limits and quota management) (PFMC 2022b),
- 5) Time and area restrictions in this area have not been effective in controlling harvest of KRFC (and assumed impacts on CC Chinook salmon) in recent years (PFMC 2022b), and
- 6) Ocean fisheries in other areas that impact KRFC routinely implement the same or similar management measures as described in the framework.

The following framework will inform the pre-season process for ocean salmon fisheries annually beginning in 2024:

- Management measures will be designed to comply with the CC Chinook salmon conservation objective (i.e., KRFC age-4 ocean HR of less than 0.16). The conservation objective will be the basis for pre-season modeling and post-season assessment. In the near-term, NMFS will require conservative management by implementing a buffer on the projected HR. The buffer will be developed by NMFS through consideration of the management error occurring over the most recent five years and other factors. The buffer will be provided in NMFS's annual guidance letter to the PFMC,
- Managers will use the KOHM and SHM to project the all-stock harvest of Chinook salmon adhering to the CC Chinook conservation objective (including NMFS guidance). The pre-season all stock harvest projection will serve as an overall harvest limit and will be the basis for developing trip limits (i.e., landing and possession limit) for the commercial troll fisheries,
- Trip limits will be developed by CDFW based on the pre-season projected all-stock harvest and the projected effort. Trip limits should be implemented on a weekly basis (e.g., Thursday through Wednesday) and will be determined (pre-season) for each month,

- Defined periods for the trip limits will be established. A shorter period may be used (e.g., Thursday through Monday (five days)) to compress the landings into a shorter timeframe to allow for reporting and accounting of catch,
- Management measures will include provisions for quick reporting/notification (within 24 hours) of commercial landing receipts to CDFW,
- Catch triggers will be established (e.g., 50% of all-stock harvest limit) to identify when in-season action would be considered to ensure that the harvest limit is not exceeded,
- In season actions will be used to mitigate for underpredictions (as compared to pre-season projections) in effort, catch, and contact-rate-per-unit-effort. In-season actions may be utilized to reduce trip limits, areas, and/or fishing periods and will close areas and seasons upon reaching the harvest limit,
- In the initial two years of implementation, in-season actions should only be used to further restrict harvest (i.e., reduce landing limits, reduce time/area, and close the fishery). Once the management framework has proven effective in keeping KRFC harvest within the pre-season projection, in-season action may be used to liberalize restrictions (i.e., increase landing limits or expand time/area) if it appears that the harvest limit will not be achieved,
- Performance of the framework will be assessed postseason. NMFS and CDFW will incorporate relevant information from the performance assessment into management decisions the following year,

CDFW will draft guidance for developing management measures before the March PFMC meeting that are consistent with the framework requirements. The draft guidance and any preliminary management measures derived from that guidance will be provided to the PFMC advisory bodies for consideration and discussion. The resulting management measures, consistent with the framework requirements described above, will be incorporated into the management alternatives developed in March.

References

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- Rumsey, S. 2023. NMFS guidance letter to M. Gorelnik regarding consultation standards for ESA-listed salmon, steelhead, and Southern Resident killer whales affected by fisheries conducted under the Pacific Coast Salmon Fishery Management Plan. Supplemental NMFS Report 1 to the Pacific Fisheries Management Council. Agenda Item D.3.b. 20 pages.
- Thom, B. 2022. NMFS guidance letter to M. Gorelnik regarding consultation standards for ESA-listed salmon, steelhead, and Southern Resident killer whales affected by fisheries conducted under the Pacific Coast Salmon Fishery Management Plan. Supplemental NMFS Report 1 to the Pacific Fisheries Management Council. Agenda Item D.3.b. 18 pages.