UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
LONG BEACH, CA 90802

February 25, 2025

Agenda Item E.3.b
Supplemental NMFS Report 1
March 2025

Mr. Brad Pettinger, Chair
Pacific Fishery Management Council
7700 NE Ambassador Place, Suite 101
Portland, Oregon 97220-1384

Dear Chair Pettinger:

The Pacific Coast Salmon Fishery Management Plan (FMP) requires that the Pacific Fishery Management Council (Council) annually develop management recommendations for salmon fisheries under the FMP. For fisheries that affect species listed as threatened or endangered under the Endangered Species Act (ESA), the National Oceanic and Atmospheric Administration's (NOAA) National Marine Fisheries Service (NMFS) carries out intra-agency consultations under ESA section 7 to ensure that the fisheries do not jeopardize any listed species or destroy or adversely modify their critical habitat. NMFS documents its consultations in biological opinions, which may include reasonable and prudent alternatives and/or reasonable and prudent measures to ensure that the fisheries are carried out consistent with ESA requirements. The Council's management recommendations to NMFS must be consistent with the biological opinions and any other requirements described in ESA regulatory documents relevant to the fisheries developed by NOAA NMFS (referred to in the FMP as consultation standards). Consistent with the FMP, this letter summarizes the consultation standards for ESA-listed salmon, steelhead, and Southern Resident killer whales (SRKW) affected by Council fisheries, and provides information and NMFS' preliminary guidance regarding their implementation for the 2025 ocean salmon fishing season.[1]

We also comment on other subjects of general interest and provide NMFS' recommendations for non-ESA-listed salmon stocks of particular relevance to Council salmon fisheries. For the 2025 salmon fishing season, these include: recommendations regarding expectations in implementing the provisions of the 2019-2028 Pacific Salmon Treaty (PST) Agreement related to Council management and recommendations for fisheries affecting Sacramento River fall-run Chinook salmon and Klamath River fall-run Chinook salmon.

Non-ESA Related Topics

Pacific Salmon Treaty Obligations

Coho Provisions

Background: Chapter 5 of the 2019 PST Agreement contains obligations regarding management of coho salmon stocks from British Columbia and Washington that are caught in both countries' salmon fisheries. Carried over from the prior Agreement is the ability for either country to request increases in

[1] The annual fishery regulations cover the fishing season beginning May 16th and ending May 15th of the following year.

any management unit's (MU) annual exploitation rate (ER) cap over those specified in the chapter, but new in the 2019 Agreement, per Section 8(g), is a commitment by both the United States (U.S.) and Canada (the Parties) to "not change the status or associated ER caps for an MU after March 31" in any given year. In addition, the Parties recently agreed to a procedure for addressing those changes per Sections 11(b) and 11(c). Under these provisions, any requests for modifying ER caps necessary to complete a Party's domestic process will need to be exchanged in writing, with information supporting that request, for resolution by the Parties prior to March 31, 2025. In the absence of agreement by March 31, 2025, the rates would remain unchanged. The 2025 pre-season planning manager-to-manager meeting between the U.S. and Canada will occur on March 17, 2025. At the meeting, the Parties will exchange pre-season expectations of stock status and anticipated fishery structure that can be readily incorporated into model inputs. Canada's Thompson River coho salmon stock is classified as being in critical status under the provisions of Chapter 5 of the 2019 PST Agreement.

***Recommendation*:** U.S. representatives that attend the meeting between the U.S. and Canada will share information on anticipated Canadian fishing levels and structure in 2025 with the Council's Salmon Technical Team (STT) for consideration in planning U.S. domestic fisheries. The affected states and tribes should apprise the Council of the status of requested changes to ER caps in U.S. fisheries for the 2025 season. Council fisheries, together with other southern U.S. fisheries, must be managed to stay within the agreed-to ER caps. The STT should report both the U.S. PST coho salmon MU obligations and expected ERs for 2025 during the pre-season process.

Chinook Provisions

Background: Chapter 3 of the 2019 PST Agreement contains obligations regarding management of Chinook salmon stocks from Southeast Alaska to Oregon that are caught in both countries' salmon fisheries. Under the Agreement, southern U.S. salmon fisheries are managed to limit the total adult equivalent mortality for a subset of Chinook salmon stocks in Puget Sound, the Washington and Oregon Coasts, and the Columbia River that are not meeting agreed escapement goals or do not have agreed escapement goals to no more than the Calendar Year Exploitation Rate (CYER) limits identified in Chapter 3, Attachment 1. Canada has similar requirements for impacts to certain Chinook salmon stocks from the subset of its fisheries that fall under the individual stock-based management (ISBM) regime. Under Section 7(c), if a Party anticipates it may exceed its CYER limit in a given year, it shall advise the Pacific Salmon Commission before the fishing season, provide supporting rationale, and explain how the limit shall be achieved on average over a three-year period. Section 7(g) allows a Party to request flexibility in unusual circumstances to avoid undue disruption of fisheries while managing consistent with the conservation provisions of the Agreement.

***Recommendation*:** Council fisheries, together with other southern U.S. fisheries, must be managed to stay within the CYER obligations. The affected states and tribes should apprise the Council of the status of any request to Canada for flexibility in U.S. fisheries for the 2025 season as early in the Council process as possible. Where possible, the STT should report both the U.S. PST obligations in southern U.S. fisheries and expected ERs for 2025 during the pre-season process.

Sacramento River Fall-run Chinook Salmon (SRFC)

Background: In 2018, SRFC escapements declined to the point the stock was determined to be overfished. The Council adopted a rebuilding plan in 2019. NMFS published a final rule approving this

rebuilding plan in November 2020.[2] In 2021, NMFS determined that SRFC was rebuilt because its three-year geometric mean spawning escapement (2018-2020) of 133,549 met the criteria for a rebuilt stock, i.e., above the stock's S_{MSY} of 122,000 spawners and removed the rebuilding plan from regulation.[3]

While the stock is now rebuilt, escapements in recent years have once again been low, and caution is warranted to reduce the chances that the stock becomes overfished again. Spawner abundance has declined from over 200,000 in the mid-2000s to just 61,862 in 2022 (Table 1). The 2024 escapement of 99,274 was below the escapement floor of 122,000 and 55% of the pre-season prediction of 180,061 with all salmon fisheries closed.

- Spawner abundance has been below the escapement floor of 122,000 associated with the FMP objective in six of the last nine years (2016-2024) (Table 1). This pattern has been a function of both fishery and forecast performance, but it is important to note that ocean and freshwater salmon fisheries impacting SRFC were entirely closed in 2023 and largely closed in 2024.
- Escapements of SRFC were 133,783 and 99,274 hatchery and natural area adults in 2023 and 2024, respectively, with 2024 well below the maximum sustainable yield escapement (S_{MSY}) of 122,000 adults.
- The three-year geometric mean of spawners is now 93,660 (2022-2024); close to the minimum stock size threshold (MSST) of 91,500 at which the stock would meet the criteria of overfished.
- Forecasts of the Sacramento Index (SI) have been higher than the post-season estimates in six of the last nine years by an average of 33 percent when return abundances were also generally low.
- ERs estimated post-season have been consistently higher than projected pre-season ERs by an average of 22 percent, and post-season estimates of escapement have been well below pre-season forecasts in seven of the last nine years (Table 1). Fisheries affecting SRFC were closed in 2023 and largely closed in 2024.
- The Sacramento River also experienced low flows and high temperatures in recent years associated with decades of frequent droughts and poor ocean conditions; these conditions have adversely affected the stock. However, with a couple of exceptions, habitat indicators for SRFC for brood year 2022, the dominant year class contributing to 2025 fisheries, improved compared to previous (poor) years suggest moderate returns of SRFC in 2025 that are expected to increase in 2026. Additional support for this outlook is that jack returns (immature Chinook are a predictor of adult returns in the subsequent year) to hatcheries in 2024 were stronger than in recent years suggesting stronger returns of SRFC in 2025. One note of caution is that thiamine levels in eggs from these broods indicate high levels of deficiency that could cause upward of 25 percent egg-fry mortality in natural spawners.[4]
- Finally, the use of in-season management, a total allowable catch and landing and possession limits required under the management measures to address California Coastal Chinook for California ocean salmon fisheries recommended by the Council and approved by NMFS in fall 2024 (50 CFR § 660.410(d)) should also provide greater certainty that fisheries will stay within their estimated impacts for SRFC.

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[2] Final rule approving the Council's rebuilding plans for SRFC and KRFC (85 FR 613575920, November 27, 2020). Available: https://www.federalregister.gov/documents/2020/11/27/2020-26042/fisheries-off-west-coast-states-west-coast-salmon-fisheries-rebuilding-chinook-salmon-stocks (website accessed February 23, 2022).

[3] https://www.federalregister.gov/documents/2022/04/29/2022-09139/fisheries-off-west-coast-states-west-coast-salmon-fisheries-federal-salmon-regulations-for (website accessed February 23, 2024)

[4] 2024-2025 California Current Ecosystem Report to the Council. https://www.pcouncil.org/documents/2025/02/f-1-a-cciea-report-1-2024-2025-california-current-ecosystem-status-report.pdf/ (website accessed February 22, 2025).

Table 1. SRFC preseason abundance, escapement, and exploitation rate forecasts for 2013-2023, and comparison to post-season estimates.

Year	Sacramento Index Forecast	Preseason Forecasted Spawning escapement	Preseason Exploitation Rate	Sacramento Index Post Season	Post-Season Spawning escapement	Post-Season Exploitation Rate
2013	834,208	462,600	45%	869,325	406,846	53%
2014	634,650	314,700	51%	551,183	212,476	62%
2015	651,985	341,017	48%	254,949	113,468	55%
2016	299,609	151,128	50%	205,317	89,699	56%
2017	230,700	133,242	42%	137,063	44,329	68%
2018	229,432	151,000	34%	220,366	105,466	52%
2019	379,632	160,200	58%	507,050	163,767	68%
2020	473,183	233,200	51%	352,460	138,091	61%
2021	270,958	133,900	51%	322,541	105,584	68%
2022	396,458	198,694	50%	252,951	61,862	76%
2023	169,767	164,964	3%	139,487	133,782	4%
2024	213,600	180,061	16%	102,965	99,274	4%

The conservation objective for SRFC in the FMP specifies a range of 122,000-180,000 combined hatchery and natural adult spawners. The harvest control rule describes maximum allowable ERs at any given level of abundance; however, the Council may recommend lower ERs as needed to address uncertainties or other year-specific circumstances. The preliminary 2025 SI forecast is 165,655. Application of this forecast to the SRFC harvest control rule results in a maximum allowable ER of 26.4 percent (just above the *de minimus* level of 25 percent) and a minimum hatchery and natural area escapement of 122,000 adults.

***Recommendation*:** Indications for the SRFC return in 2025 are mixed. The 2025 forecast is below the upper end of the escapement goal range at a level similar to the 2023 forecast. The 2025 forecast is much lower than the forecast for 2024. The 2024 escapement was well below the escapement floor and much lower than escapements in 2023 although fisheries were closed in both 2023 and 2024. The status as an overfished stock in the recent past and the current status of the stock relative to the overfished threshold, the pattern of low recent year escapements, combined with higher than

anticipated ERs, and over-forecasting remain a cause for concern for 2025. On the other hand, improvements in habitat indicators suggest moderate returns of SRFC in 2025 and jack returns to hatcheries in 2024 were relatively strong. Collectively, these circumstances again support the need for very conservative management in 2025 with the potential for very limited fishing. Therefore, NMFS recommends that the Council develop alternatives for 2025 ocean salmon fisheries that result in escapement at or above the lower end of the escapement goal range i.e., 122,000 Chinook salmon spawners, and provide enough difference among the alternatives to meaningfully inform the public, Council and stakeholders regarding the trade-offs in resource use and conservation.

In addition, we continue to support the Council efforts through the work of the SRFC Ad-Hoc Workgroup and other Council processes to design new, or update existing, abundance forecast methods and recommend improvements to harvest models to better align the pre-season and post-season estimates of escapement and ERs.

Klamath River Fall-run Chinook Salmon (KRFC)

Background: KRFC were declared overfished in 2018. The Council adopted a rebuilding plan in 2019 and NMFS published a final rule approving this rebuilding plan in November 2020.[5] The Council's rebuilding strategy includes using the current KRFC harvest control rule to set maximum allowable ERs and minimum escapement values based on forecasted abundance. Natural-area adult escapement of KRFC in 2024 was 24,032 adults, below the projected 2024 escapement of 36,511 and the S_{MSY} of 40,700. The three-year geometric mean of spawners is 27,947 (2022-2024), which is below the minimum stock size threshold (MSST=30,525) and, therefore, the KRFC stock continues to meet the criteria for overfished status.

[5] Final rule approving the Council's rebuilding plans for SRFC and KRFC (85 FR 613575920, November 27, 2020). Available: https://www.federalregister.gov/documents/2020/11/27/2020-26042/fisheries-off-west-coast-states-west-coast-salmon-fisheries-rebuilding-chinook-salmon-stocks (website accessed February 23, 2022).

Table 2. KRFC pre-season abundance, escapement, and exploitation rate forecasts for 2013-2024, and comparison to post-season estimates.

Year	Ocean Abundance Forecast	Pre-season Forecasted Spawning escapement	Pre-season Exploitation Rate	Post-Season Ocean Abundance	Post-Season Spawning escapement	Post-Season Exploitation Rate
2013	727,700	73,751	68%	636,795	59,156	64%
2014	299,300	40,700	47%	404,787	95,104	36%
2015	423,753	40,700	59%	184,768	28,112	59%
2016	142,169	30,909	25%	58,589	13,937	37%
2017	54,246	11,379	8%	75,080	19,904	10%
2018	359,231	40,700	34%	204,266	52,352	32%
2019	274,200	40,700	54%	97,698	20,022	43%
2020	186,600	36,200	25%	143,338	26,185	30%
2021	181,500	31,574	25%	178,952	29,942	38%
2022	200,100	38,180	25%	165,778	21,956	46%
2023	103,800	23,614	10%	129,291	41,370	4%
2024	180,700	36,511	20%	118,415	24,032	23%

The KRFC harvest control rule specifies maximum allowable ERs that vary with abundance but generally seeks to provide for an S_{MSY} escapement level of at least 40,700 *natural-area* adults (i.e., adult fish that spawn in natural areas regardless of origin). When KRFC potential spawner abundance is projected to be less than 54,267 natural-area adults, fisheries are managed under the *de minimis* portion of the control rule, which allows for some fishing opportunity but results in the expected escapement falling below 40,700 natural-area adult spawners. The 2025 KRFC potential natural-area spawner abundance prior to fishing is predicted to be 20,763 adults. Application of this forecast to the KRFC harvest control rule results in a maximum allowable ER of 10.0 percent and a minimum natural area adult escapement of 18,687 adults.

Under Section 3.3.6 of the FMP, the control rule describes maximum allowable ERs at any given level of abundance. The Council may recommend lower ERs as needed to address uncertainties or other year

specific circumstances. The FMP also requires the Council to consider the following set of factors in setting an allowable *de minimis* ER:

- the potential for critically low natural spawner abundance, including considerations for substocks that may fall below crucial genetic thresholds;
- spawner abundance levels in recent years;
- the status of co-mingled stocks;
- indicators of marine and freshwater environmental conditions;
- minimal needs for tribal fisheries;
- whether the stock is currently approaching an overfished condition;
- whether the stock is currently overfished; and
- other considerations as appropriate.

The stock is currently in overfished status. Spawner abundance has been on average 32 percent below the escapement goal of 40,700 associated with the FMP objective since 2016 (Table 2). Similar to SRFC, this pattern is a function of both fishery and forecast performance as well as poor environmental conditions.

- Spawner abundance has been below the escapement goal of 40,700 associated with the FMP objective in seven of the last nine years (2016-2024) (Table 2). Ocean fisheries affecting KRFC were largely closed in both 2023 and 2024.
- Forecasted ocean abundance was higher than the post-season estimates in six of the last nine years, for which information is available, with improved performance in recent years.
- ERs estimated post-season were substantially higher than projected in two out of the most recent three years when fisheries occurred and above the *de minimis* level allowed by the FMP and/or rebuilding plan for those years. Ocean salmon fisheries in South of Cape Falcon waters affecting KRFC were largely closed in 2023 and 2024.
- Post-season estimates of escapement have averaged close to expectations over the last decade with both over- and under-predictions (Table 2).
- Environmental indicators for KRFC are consistent with low returns in 2025 and slight improvements in 2026. Removal of the four lower Klamath River dams has been completed, opening several hundred miles of new habitat, and restoration actions are underway. However, considerable uncertainty exists over how removal of the lower four Klamath River dams in 2024 might have affected adult recolonization, spawning, and juvenile productivity.
- In June 2023, the Council formed the Klamath River Fall Chinook Ad-Hoc Workgroup (Workgroup). At this meeting, the Workgroup will present alternatives for the Council's consideration for the upcoming 2025 pre-season salmon process.

The poor stock status, pattern of low escapements, combined with higher than anticipated ERs, on-going habitat and disease challenges (Agenda Item F.1.a CCIEA Team Report 1, March 2025), and low 2025 forecast are a cause for significant concern for 2025. The alternatives under development by the Workgroup are consistent with application of the *de minimus* provisions of the current control rule with varying levels of additional constraints.

Consistent with the provisions of the FMP, the Council may recommend lower ERs as needed to address uncertainties or other year-specific circumstances.

Recommendation: Council ocean salmon fisheries in 2025 must be managed consistent with the rebuilding plan for KRFC, which incorporates the KRFC harvest control rule. Applying the forecast

abundance to the control rule results in a maximum allowable ER of 10 percent and a minimum expected natural area adult escapement of 18,687. Given the overfished status, the additional factors described above, and the outlook for the stock in 2025, NMFS believes that a precautionary approach is warranted and underscores the need to carefully consider the factors described in the FMP in setting the ER including consideration of the alternatives recommended by the Workgroup. Given the very low abundance forecast and resulting low level of allowable fishing mortality, NMFS expects that harvest opportunity on KRFC will be constrained to the 10 percent tier of *de minimis* mortality levels in the region between Cape Falcon, Oregon, and Point Sur, California.

ESA-listed Chinook Salmon Species

California Coastal (CC) Chinook Salmon Evolutionarily Significant Unit (ESU)

Background: The CC Chinook salmon ESU has been listed as threatened under the ESA since 1999. The current consultation standard for CC Chinook salmon is described in the FMP and is based on the reasonable and prudent alternative (RPA) described in the 2000 NMFS biological opinion. The most recent biological opinion, issued in February 2024, confirmed that managing fisheries to avoid exceeding this standard is not likely to jeopardize the listed ESU. Because data are currently insufficient to determine an ESU-specific conservation objective, NMFS uses age-4 KRFC as a surrogate for CC Chinook salmon. The consultation standard is a limit of 16 percent for the ocean harvest rate of age-4 KRFC.

Following several years in which the consultation standard for CC Chinook salmon was exceeded, the Council developed and NMFS approved a set of management measures intended to ensure that exceedances do not continue. The proposed action for the 2024 biological opinion included the consultation standard in the FMP as well as this set of management measures. The management measures include a buffer applied to the conservation objective based on performance error (the average percent error of the KRFC age-4 ocean harvest rate for the previous five years) and other relevant factors, an allowable harvest level, landing and possession limits, and in-season management for the commercial troll fishery. The 2024 biological opinion determined that authorization of the ocean salmon fishery in the Exclusive Economic Zone (EEZ) through promulgation of regulations implementing the salmon FMP including the CC Chinook salmon conservation objective and implementation of the new management measures would not jeopardize the CC Chinook salmon ESU. NMFS adopted the management measures by regulatory amendment which was published August 14, 2024 (89 FR 6601) and effective September 13, 2024.

Guidance: Council salmon fisheries in 2025 should be managed consistent with the consultation standard and the new management measures evaluated in the NMFS 2024 biological opinion. One of the measures is use of a buffer on the consultation standard to ensure ocean harvest rates do not exceed the 0.16 age-4 KRFC harvest rate consultation standard. The buffer is based on the percent error of the KRFC harvest rate predictor from 2019 to 2024 (excluding 2023 because fisheries closures resulted in a projected harvest rate of near zero). For 2025, ocean salmon fisheries should be managed for a buffered pre-season age-4 KRFC harvest rate of 7.7 percent. Consistent with the codified regulations as amended in 2024, management measures for the commercial fishery should include an allowable harvest level, weekly landing and possession limits, and provisions for quick reporting. In-season actions should be used in combination with the landing and possession limits to ensure that harvest does not exceed the allowable harvest level.

Sacramento River Winter-run Chinook Salmon (SRWC) ESU

Background: The SRWC ESU was listed under the ESA as threatened in 1990 and up-listed as endangered in 1994. SRWC is one of ten species identified in NMFS' "Species in the Spotlight" initiative because it is at high risk of extinction. For more information about actions for its conservation and recovery, please refer to its Species in the Spotlight Priority Action Plan.[6]

NMFS has completed several ESA consultations regarding the impacts of the ocean salmon fishery on SRWC. The most recent and currently applicable biological opinion was completed in March 2018. That biological opinion analyzed an abundance-based control rule, informed by extensive analysis by the Council's ad hoc SRWC Workgroup, in conjunction with size and season limits previously implemented. The 2018 biological opinion concluded that salmon fisheries managed under this control rule, and maintaining the fishery season and size restrictions that were part of the previous RPA, are not likely to jeopardize SRWC.

The harvest control rule uses a forecast of SRWC age-3 escapement in the absence of salmon fisheries (E_3^0) to determine the allowable age-3 impact rate.[7] If E_3^0 is above 3,000, a maximum impact rate of 20 percent is allowed. If E_3^0 is between 3,000 and 500, then the impact rate ranges from 20 percent to 10 percent. If E_3^0 is below 500, then the impact rate has a steeper decline from 10 percent until it reaches zero at an E_3^0 of zero (Figure 1).

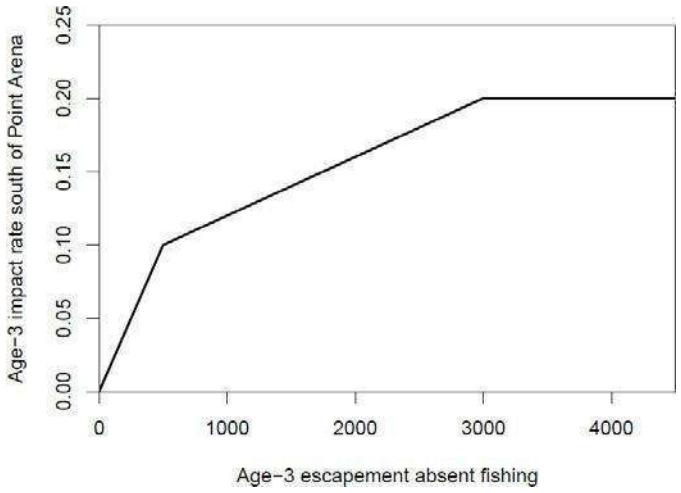

Figure 1. The adopted harvest control rule for management of ocean fisheries that affect Sacramento River winter-run Chinook salmon.

[6] Species in the Spotlight: Priority Actions 2021-2025, Sacramento River Winter-Run Chinook Salmon https://www.fisheries.noaa.gov/west-coast/endangered-species-conservation/sacramento-river-winter-run-chinook-salmon#:~:text=The%20Sacramento%20River%20winter%2Drun,in%20need%20of%20urgent%20protection.

[7] Rogers,T. and M. O'Farrell. 2023. A re-evaluation of preseason abundance forecasts for Sacramento River winter Chinook salmon. September 22, 2023. Agenda Item D.3 Attachment 1 (Electronic Only) November 2023 Available: https://www.pcouncil.org/documents/2023/10/d-3-attachment-1-methodology-review-materials-electronic-only.pdf/#page=12. (website accessed February 27, 2024) and O'Farrell, M. and T. Rogers. 2023. Methodology Review – Final – Additional Material Requested at the 2023 Salmon Methodology Review Meeting. Supplement to "A re-evaluation of preseason abundance forecasts for Sacramento River winter Chinook salmon" in response to requests from the SSC-SS. Agenda Item D.3 Supplemental Attachment 3 November 2023. Available: https://www.pcouncil.org/documents/2023/10/d-3-supplemental-attachment-3-final-additional-material-requested-at-the-2023-salmon-methodology-review-meeting.pdf/ (website accessed February 27, 2024)

Guidance: The 2025 forecast of SRWC age-3 escapement in the absence of fisheries is 4,507. Applying this abundance forecast to the control rule results in a maximum allowable age-3 impact rate of 20 percent in 2025 salmon fisheries south of Point Arena, California. Council salmon fisheries in 2025 should be designed to not exceed a 20 percent age-3 impact rate on SRWC along with continuing to require minimum size limits and seasonal fishing windows specified in the FMP south of Point Arena, California, for both the commercial and recreational fisheries specified in the FMP.

Central Valley (CV) Spring-run Chinook Salmon ESU

Background: The CV spring-run Chinook salmon ESU was first listed as threatened in 1999. Effects of the ocean salmon fishery on this ESU were analyzed in NMFS' 2000 biological opinion. That biological opinion concluded the fishery, as regulated under the FMP and NMFS' consultation standards for SRWC, was not likely to jeopardize the continued existence of CV spring-run Chinook salmon. In 2018, NMFS completed a new opinion on SRWC that evaluated a new management framework for SRWC and retained the size and season limits from the previous RPA for SRWC as described above. The management framework and additional requirements evaluated in the 2018 opinion for SRWC represent equivalent and/or additional restrictions on the salmon fishery when compared to the management measures considered in the analysis in the 2000 opinion for CV spring-run Chinook salmon and is more responsive than prior management frameworks to information related to the status of CV spring-run Chinook salmon by accounting for changes in freshwater conditions in the CV for SRWC. Therefore, the effects on CV spring-run Chinook salmon under the 2018 management framework for SRWC are within those evaluated in the 2000 opinion for CV spring-run Chinook salmon. The conclusion of the 2000 opinion that management of the ocean salmon fishery consistent with the FMP and NMFS' consultation standards for SRWC is not likely to jeopardize the continued existence of CV spring-run Chinook salmon remains in effect.

CV spring-run Chinook salmon experienced improving conditions recently, and are projected to rebound from a time-series worst projected return in 2024. These projected increases are driven by improvements to outmigration flows in 2023 and 2024 outmigration years and smolts per spawner measured at traps in Butte Creek in 2024. However, these expectations should be viewed with some caution given the observations of high rates of thiamine deficiency; this may be a particular concern in a stock that largely depends on natural-origin spawning populations that did not benefit from thiamine supplementation in hatcheries. (Agenda Item F.1.a CCIEA Team Report 1, March 2025)

Guidance: The Council should continue the existing approach of relying on current management for SRWC for ocean salmon fisheries in the 2025 fishing season. Council salmon fisheries in the 2025 fishing season should be managed consistent with the control rule for SRWC analyzed in the 2018 biological opinion to be sufficiently protective of the CV spring-run Chinook salmon ESU. Given the magnitude of anticipated management constraints that will be in place in 2025 for other stocks (e.g., SRFC, KRFC, CC Chinook salmon) and the more favorable outlook for 2025, NMFS does not anticipate the need to take further management actions in the ocean to protect the CV spring-run Chinook salmon ESU in 2025. However, given the poor status of the population, the record low returns in 2024 and uncertainty regarding the effect of thiamine deficiency on natural production, NMFS recommends the Council consider shaping early season fisheries to provide additional protection for CV spring-run Chinook salmon.

Lower Columbia River (LCR) Chinook Salmon ESU

Background: The LCR Chinook salmon ESU was listed as threatened under the ESA in 1999. In 2011, the Council recommended implementation of an abundance-based framework for limiting

fishery impacts on this ESU. NMFS analyzed the effects of using this framework to manage ocean fisheries on LCR Chinook salmon in a 2012 biological opinion. The 2012 biological opinion determined that the abundance-based framework for the tule component of the ESU, coupled with the escapement-based management for the spring and bright components, would not jeopardize the ESU and continues to provide the basis for our guidance.

The LCR Chinook salmon ESU includes a spring-run component, a "far-north" migrating bright component, and a component of north-migrating tule Chinook salmon. The bright and tule components both have fall-run timing. The historic spawning habitat for the Upper Cowlitz, Cispus, and Lewis River spring-run Chinook salmon populations in Washington is now largely inaccessible to salmon due to impassable dams. These populations are therefore dependent, for the time being, on the associated hatchery programs.

a) *Cowlitz, Lewis River, and Sandy River Hatcheries populations* – Per the Lower Columbia Salmon and Steelhead Recovery Plan, the Cowlitz Salmon Hatchery and Lewis River Salmon Hatchery are being used for reintroduction of LCR spring-run Chinook salmon into the upper basins of the Cowlitz and North Fork Lewis rivers above the existing dams.[8] The hatchery programs are critical to the overall recovery effort. Given these circumstances, maintaining the hatchery brood stocks for the Cowlitz and Lewis River Hatcheries is essential for implementation of the recovery plan. The Cowlitz Salmon Hatchery has met escapement objectives in 10 out of the last 12 years, with the last five years experiencing one shortfall. The Lewis River Salmon Hatchery has met escapement objectives in 8 out of the last 12 years, with no shortfalls in the last five years. Although additional progress is required to meet the high viability objective for the Sandy River spring-run Chinook salmon population, harvest objectives specified for the population through recovery planning are being met.

b) *North Fork Lewis River and Sandy River bright populations* – There are two extant natural-origin bright populations, both considered relatively healthy, in the LCR Chinook salmon ESU: the North Fork Lewis River and Sandy River populations. The North Fork Lewis River population is used as a harvest indicator for ocean and in-river fisheries. The escapement goal used for management purposes for the North Fork Lewis River population is 5,700, based on estimates of maximum sustainable yield derived from spawner-recruit analysis. Annual escapements averaged 13,608 between 2013 and 2024 and, with few exceptions, have met or exceeded the goal since at least 1980. The Sandy River population is considered to be viable under current harvest conditions in the Lower Columbia River Salmon and Steelhead Recovery Plan.

c) *LCR tule Chinook salmon* – The tule component of the LCR Chinook salmon ESU comprises twenty-one separate populations. Tule Chinook salmon is a major contributor to Chinook salmon catch in Council fisheries, as well as fisheries to the north and in the Columbia River. NMFS' 2012 biological opinion on the abundance-based management (ABM) framework concluded that fisheries managed under this framework are not likely to jeopardize LCR Chinook salmon. The ABM framework sets the annual ER limit depending on the abundance of Lower River Hatchery (LRH) tule Chinook salmon (Table 4).[9]

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[8] Recovery Plan for Lower Columbia River Coho Salmon, Lower Columbia River Chinook Salmon, Columbia River Chum Salmon, and Lower Columbia River Steelhead. Available: https://www.fisheries.noaa.gov/resource/document/recovery-plan-lower-columbia-river-coho-salmon-lower-columbia-river-chinook (website accessed January 18, 2024).

[9] Matrix revised 2024 to account for reductions in Mitchell Act production of tule Chinook salmon. The reductions were realized with the juveniles released in 2022 (i.e., brood year 2021 for tule fall Chinook salmon) (NMFS 2017). Tule fall Chinook salmon adults mature starting at age three, therefore, we anticipated that the reductions in hatchery production

Table 4. Variable exploitation rate limits based on the pre-season forecast of LRH Chinook salmon.

Lower River Hatchery Abundance	Total Exploitation Rate Limit
0-24,000	30%
24,001-31,000	35%
31,001-67,000	38%
> 67,000	41%

Guidance: a) *Cowlitz, Lewis River, and Sandy River Hatcheries populations* – The 2025 forecast to the Columbia River mouth for Cowlitz Salmon Hatchery spring-run Chinook salmon is 13,700 adults, compared to a hatchery escapement goal of 1,337. The 2025 forecast to the Columbia River mouth for Lewis River Salmon Hatchery spring-run Chinook salmon is 3,200 adults compared to a hatchery escapement goal of 1,380. We understand the states of Washington and Oregon will manage the mainstem Columbia River spring season salmon fisheries, along with salmon fisheries in Columbia River tributaries, to ensure the escapement to the Cowlitz and Lewis River Hatcheries will meet requirements for the 2025 fishing season. The Sandy River spring-run Chinook salmon population is meeting the recovery planning harvest objective and NMFS does not anticipate the Council will need to take specific management actions in the ocean to protect the spring component of the LCR Chinook salmon ESU in 2025. We anticipate the management agencies will continue to manage in-river fisheries, coordinating between mainstem and terminal tributary fisheries management, toward meeting hatchery escapement in 2025.

b) *North Fork Lewis River and Sandy River populations* – Given the long history of healthy returns and management constraints that will be in place this year for other fall-run stocks (e.g., tules and upriver brights), we do not anticipate the Council will need to take specific management actions in the ocean to protect the bright component of the LCR Chinook salmon ESU in 2025. The Council should continue to manage ocean fisheries such that when combined with fisheries in state waters, the escapement goal of 5,700 Chinook salmon to the North Fork Lewis River is met. We anticipate that the states of Washington and Oregon will continue to monitor the status of the LCR Chinook salmon bright populations and take the specific actions necessary through their usual authorities to deliver spawning escapement through the in-river fisheries they manage sufficient to maintain the health of these populations.

would affect the abundance of hatchery adults returning starting in 2024. The program production goal represents a reduction of approximately 21.4 percent from the production level assumed in the development of the original matrix. Agenda Item C.1.a Supplemental NMFS Report 1 March 2024

c) *LCR tule Chinook salmon* – The 2025 forecast for LRH tule Chinook salmon is 121,500; therefore, Council fisheries in 2025 should be managed such that the total mortality of LCR tule Chinook salmon in all ocean fisheries and all mainstem Columbia River fisheries below Bonneville Dam combined does not exceed an ER of 41 percent.

Upper Columbia River Spring-run Chinook Salmon, Upper Willamette River Chinook Salmon, Snake River Spring/Summer-run Chinook Salmon ESUs

Background: NMFS considered the effects of Council fisheries on the spring-run Chinook salmon ESUs from the Upper Columbia River and Upper Willamette River Basins in a 2001 biological opinion and spring/summer-run Chinook salmon stocks from the Snake River in a 1996 biological opinion. In these biological opinions we concluded that the expected take in Council salmon fisheries of salmon originating from any one of these ESUs is at most an occasional event; therefore, the fisheries were not likely to jeopardize any of these ESUs.

Guidance: Consistent with those biological opinions, management actions designed to limit catch from these ESUs beyond what will be provided by harvest constraints for other stocks in 2025 are not necessary.

Snake River (SR) Fall-run Chinook Salmon ESU

Background: NMFS completed a biological opinion on the impacts of Council salmon fisheries on SR fall-run Chinook salmon in 1996. In that biological opinion, NMFS concluded that a 30.0 percent reduction in the age-3 and age-4 adult equivalent total exploitation rate in ocean salmon fisheries relative to the 1988-1993 base period standard provided a necessary and appropriate level of protection for SR fall-run Chinook salmon. That consultation standard is equivalent to an ocean ER limit of 29 percent on age-3 and age-4 SR fall-run Chinook salmon when using the Fishery Regulation Assessment Model (FRAM) base period calibration Round 7.1.1.

Guidance: In 2025, Council salmon fisheries must be managed to ensure the contribution of fisheries in the Council's management area does not result in exceeding the 30.0 percent base period reduction criterion for the aggregate of all ocean salmon fisheries, including Southeast Alaska, Canada, and Council fisheries.

Puget Sound (PS) Chinook Salmon ESU

Background: With respect to the PS Chinook salmon ESU, NMFS acknowledges the importance of, and continues to strongly support, the integrated management structure between the Council and North of Falcon (NOF) planning processes. The PS Chinook salmon ESU was listed as threatened in 1999. The conservation objectives for PS Chinook salmon stocks that NMFS includes in this letter are described in terms of total or southern U.S. salmon fisheries (SUS) impacts rather than Council salmon fishery-specific impacts. Under the current management structure, Council salmon fisheries are included as part of the suite of fisheries that comprise the fishing regime negotiated each year by the co-managers under *U.S.* v. *Washington* to meet management objectives for Puget Sound and Washington Coastal salmon stocks.

Although Council and Puget Sound fisheries are intertwined with respect to PS Chinook salmon, impacts on PS Chinook salmon stocks in Council salmon fisheries are generally quite low. In 2004, NMFS issued a biological opinion on the anticipated effects of Council salmon fisheries on the listed PS Chinook salmon ESU for 2004 and future fishing years. The 2004 biological opinion found that

ERs on Puget Sound Chinook salmon, in Council area salmon fisheries, would not jeopardize the continued existence of the species.

Since the PS Chinook salmon was listed under the ESA in 1999, NMFS has consulted on a series of federal actions related to implementation of proposed harvest plans for Puget Sound salmon fisheries. NMFS is currently reviewing a new (February 2022), comprehensive ten-year joint Chinook Resource Management Plan (RMP) developed by the Washington Department of Fish and Wildlife and the Puget Sound Treaty Tribes (collectively the Puget Sound co-managers). However, NMFS' review of the new RMP under NMFS' ESA 4(d) rule will not be completed prior to the 2025 fishing season. Therefore, in 2025 NMFS expects to consult on proposed actions related solely to the 2025-26 Puget Sound salmon fishing season. We expect to issue the biological opinion for federal actions related to the 2025-26 Puget Sound fisheries by early May 2025. The following guidance reflects NMFS' discussions with the Puget Sound co-managers and our best preliminary assessment of appropriate conservation objectives for 2025 based on forecast abundance relative to the conservation objectives in Table 5.

Guidance: For 2025, the Council salmon fisheries should be managed such that ERs on PS spring- and fall-run Chinook salmon management units do not exceed 3 and 6 percent, respectively, consistent with rates evaluated in the 2004 biological opinion. Additionally, the Council should determine that its fisheries, when combined with the suite of other fisheries impacting the PS Chinook salmon ESU, meet the conservation objectives identified in this letter for populations within this ESU. Our preliminary 2025 guidance for conservation objectives for all PS Chinook salmon Management Units or populations, as appropriate is summarized in Table 5, below. Table 5 represents the full range of potential ERs used to manage annual Puget Sound Chinook harvest. The guidance is a mixture of total, SUS, and pre-terminal (PT) SUS ERs. We have identified the preliminary objectives, by population, in bold. The actual ERs will depend on the forecasts which we anticipate will be finalized prior to the March Council meeting.

In summary, while the focus of this document is for the Council salmon fisheries in 2025, we acknowledge the importance of the integrated management structure between the Council and NOF planning processes. Southern U.S. management actions taken to meet the conservation objectives listed below will occur primarily in Puget Sound fisheries because impacts on PS Chinook salmon in Council fisheries are low. However, since impacts in both fisheries contribute to meeting these objectives, any delay in reaching the necessary agreements through the NOF process by the end of the April 2025 Council meeting will complicate NMFS' ability to approve regulations for Council area fisheries and to complete the biological opinion for Puget Sound fisheries by mid-May 2025.

To avoid such complications, we strongly recommend that the Council provide assurance that the final option adopted at its April 2025 Council meeting, when combined with Puget Sound fisheries negotiated during the NOF process, results in harvest impacts that are consistent with the conservation objectives for each Puget Sound Chinook salmon management units included in Table 5, based on the anticipated 2025 abundances.

Table 5. NMFS' guidance for Puget Sound Chinook salmon conservation objectives for the 2025 fishing year.

Management Unit	Puget Sound Chinook Total, Southern US (SUS) and Pre-terminal SUS (PT SUS) Exploitation Rates (ER) Limits

	Upper ER Ceilings	ER Ceilings or Moderate Management ER Ceiling	Critical ER Ceiling
Nooksack Spring	-	-	**10.9% SUS** [1]
Skagit Summer/Fall	-	52%	**15% SUS**
Skagit Spring	-	**36%**	10.7% SUS
Stillaguamish	13% SUS	**9% SUS**	9% SUS [2]
Snohomish [3]	10.3% SUS	**9.3% SUS**	8.3% SUS
Lake Washington	**14-15%PT SUS** [4]	18% SUS	12% SUS
Green	**14-15%PT SUS** [4]	18% SUS	12% SUS
White River	-	**22% SUS**	15% SUS
Puyallup	**14-15%PT SUS** [4]	30% SUS	15% SUS
Nisqually	-	**47%**	Up to 50% reduction in SUS ER to meet LAT
Skokomish	-	**50%** [5]	12% PT SUS
mid-Hood Canal	-	-	-[6]
Dungeness	-	**10% SUS**	6% SUS
Elwha	-	10% SUS	**6% SUS**

[1] Nooksack SUS ER may increase above 10.9%, up-to 14.1%, in one of every five years.

[2] When the Stillaguamish terminal run size is forecasted to be below the LAT, the Co-managers will implement further guidelines, as described in the 2022 Puget Sound Chinook RMP, that could result in a SUS ER limit below 9%.

[3] Generally, SUS fisheries will be managed so that the total ER on the Snohomish MU would not exceed 20%. However, depending on the planned ER in northern fisheries, annual SUS fisheries may be planned up to the SUS ER limits described in this table, which may result in total ERs exceeding 20%.

[4] Pre-terminal SUS ER limits for the mid-Sound fall Chinook management units will be 14% when all three populations are forecasted to exceed their first level upper management threshold (UMT) spawning ground escapement estimates, based on terminal run size forecast (UMT 1: Lake WA=500; Green=4,500; Puyallup=1,538) and up to 15% when all three populations are forecasted to exceed their UMT 2 spawning ground escapement estimates, based on terminal run size forecast (Lake WA=500; Green=6,700; Puyallup=1,895).

[5] Up to 50 percent total ER when forecasted total escapement is higher than 1,650 to the natural spawning grounds and 2,000 to the hatchery. When forecasted total escapement is under the LAT, pre-terminal SUS rate will be limited to 12% and terminal fishery management actions will be taken to increase escapement.

[6] Puget Sound salmon fisheries impacts to the Mid-Hood Canal population shall be managed to have a negligible impact on the status of the population, from reductions in the number of spawning Chinook in the mid-Hood Canal streams. Based on recent assessments in NMFS' Puget Sound biological opinions (2018-2022), the appropriately conservative level of impact is a spawner-reduction from Puget Sound fisheries of no more than four spawners.

ESA-listed Coho Salmon Species

Oregon Coast (OC) Coho Salmon ESU

Background: The OC coho salmon ESU is currently ESA-listed as threatened. Amendment 13 specifies the harvest management matrix for managing fisheries that affect this ESU. NMFS concluded in its 1999 biological opinion that Amendment 13 was not likely to jeopardize the ESU.

Under the matrix, the total ER limit is set each year based on measures of parental escapement and marine survival for three sub-aggregates of stocks within the ESU (northern, north-central, and south-central). The southern sub-aggregate of stocks is within the Southern Oregon/Northern California Coastal (SONCC) coho salmon ESU (see guidance for SONCC coho salmon). Ocean fishery impacts each year are limited to the lowest impact level specified for the weakest sub-aggregate. The total ER in all ocean and freshwater fisheries must not exceed the limits specified in the matrix for each sub-aggregate.

In 2000, the Council appointed the Oregon Coast Natural Coho Salmon Work Group (Work Group) to review Amendment 13. The Work Group recommended expanding the original harvest matrix in Amendment 13 to explicitly define the critical and very low parental escapement levels and extremely low marine survival that would trigger lower ERs in fisheries. The expanded harvest matrix (Appendix 3 in OCN Work Group report[10]) was presented to the Council in November 2000. The Council and the Oregon Department of Fish and Wildlife have been applying the Work Group's expanded harvest matrix for ocean and freshwater fishery impacts.

Guidance: Using the expanded matrix in 2025 will ensure a level of protection consistent with the 1999 biological opinion. Under this management framework, ocean fishery impacts are limited to the status of the weakest sub-aggregate[11]. For all three sub-aggregates, parental escapement in 2021 was high and the marine survival index for adult coho salmon returning in 2025 was medium. Under these circumstances, the total ER in marine and freshwater salmon fisheries is limited to no more than 30 percent for the northern, north-central, and south-central sub-aggregates. As mentioned above, the southern sub-aggregate is within the SONCC coho salmon ESU; therefore, it should be managed consistent with the SONCC coho salmon ESU section as described below.

Lower Columbia River (LCR) Coho Salmon ESU

Background: The LCR coho salmon ESU was listed as threatened under the ESA in 2005. In 2014, the Council recommended a harvest management matrix for managing impacts to LCR coho salmon. In 2015, NMFS completed a biological opinion concluding that Council fisheries managed using this matrix are not likely to jeopardize LCR coho salmon.

Under the matrix, the total ER limit for LCR coho salmon is set each year based on measures of parental escapement and marine survival (Table 6). The total ER on LCR coho salmon in all marine area fisheries and fisheries in the mainstem Columbia River below Bonneville Dam must not exceed the year-specific ER limit.

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[10] OCN Workgroup. 2000. OCN Work Group Report. 2000 Review of Amendment 13 to the Pacific Coast Salmon Plan. October 12, 2000. Exhibit B.3.b. November 2000. 43 pages. Available: https://www.pcouncil.org/documents/2000/11/b-salmon-management-november-2000.pdf#page=19 (website accessed February 23, 2025).

[11] Freshwater terminal area fisheries are managed to each sub-aggregate year specific total exploitation rate limit specified in the management framework.

Table 6. Harvest management matrix for LCR coho showing allowable fishery exploitation rates based on parental escapement and marine survival index.

Parental Escapement (rate of full seeding)		Marine Survival Index (based on return of jacks per hatchery smolt)					
		Very Low (≤ 0.06%)	Low (≤ 0.08%)	Medium (≤ 0.17%)	High (≤ 0.40%)	Very High (> 0.40%)	
Normal	≥ 0.30	10%	15%	18%	23%	30%	**Allowable ER**
Very Low	< 0.30	≤ 10%	≤ 15%	≤ 18%	≤ 23%	≤ 30%	

Guidance: Parent escapement of LCR coho salmon in 2021 was in the normal category. The marine survival index of LCR coho salmon returning in 2025 is in the high category. Therefore, Council salmon fisheries in 2025 should be managed such that the total ER in all salmon fisheries on LCR coho salmon below Bonneville Dam does not exceed 23 percent.

Southern Oregon/Northern California Coastal (SONCC) Coho Salmon ESU

Background: The SONCC coho salmon ESU has been listed as threatened under the ESA since 1997. The first biological opinion on the effects of ocean fisheries on the ESU as managed under the FMP was completed in 1999. The Rogue/Klamath coho salmon hatchery stock is used as an indicator of fishery impacts on SONCC coho salmon in the FRAM model. In 2020, under a stipulated agreement with the Hoopa Valley Tribe, NMFS conferred with the Council on completion of a new SONCC coho salmon harvest control rule, and a timeline for ESA consultation, as warranted, on the effects of the control rule. In April 2020, consistent with the stay of litigation, the Council formed an ad hoc workgroup to develop a harvest control rule for Council consideration. The workgroup assessed the effects of a range of harvest control rules on six populations or population units within the SONCC coho salmon ESU for which there was sufficient data to conduct the analyses.

In January 2022, the Council adopted a new harvest control rule informed by the analyses of the ad hoc workgroup and recommended amendment of the FMP to incorporate the new control rules. The new harvest control rule includes total ER limits of: (1) 16 percent for the Trinity population unit (Upper Trinity River, Lower Trinity River, South Fork Trinity River); and, (2) 15 percent for each of the remaining individual populations within the ESU as represented by the Rogue River, the Scott River, the Shasta River, Freshwater Creek, and Bogus Creek. These ER limits include all ocean and inland sources of fishery mortality on age-3 adult SONCC coho salmon, including landed and non-landed mortality. Coho-directed fisheries and coho salmon retention in Chinook-directed fisheries remain prohibited in the EEZ off of California in order to limit impacts to the ESA listed Central California Coastal coho salmon ESU (see discussion below). NMFS completed a new consultation in April 2022 on the effect of ocean salmon fisheries under the FMP on the SONCC coho salmon ESU, including the new harvest control rule, concluding that fisheries managed under the new harvest control rules were not likely to jeopardize the ESU. In September 2022, NMFS approved the Council's Amendment 23, which amended the FMP to incorporate the SONCC harvest control rules.

Guidance: Council salmon fisheries in 2025 shall be managed consistent with Amendment 23 such that the total ER limit (ocean and freshwater fisheries combined) does not exceed: (1) 16 percent for the Trinity population unit (Upper Trinity River, Lower Trinity River, South Fork Trinity River; and, (2) 15 percent for each of the remaining individual populations within the ESU as represented by the Rogue River, the Scott River, the Shasta River, Freshwater Creek, and Bogus Creek.

Central California Coastal (CCC) Coho Salmon ESU

Background: The CCC coho salmon ESU was listed as threatened under the ESA in 1996 and up-listed as endangered in 2005. NMFS completed a biological opinion addressing the effects of the fishery on CCC coho salmon in 1999. Information on past harvest or non-retention mortality rates is lacking for CCC coho salmon. In the absence of more specific information, a prohibition on directed fishing for coho and retention of coho salmon in Chinook salmon-directed fisheries off of California has been implemented consistent with the 1999 opinion, see FMP Table 3-1.

CCC coho salmon is one of ten species identified in NMFS' "Species in the Spotlight" initiative because the ESU is at high risk of extinction. For more information about actions for its conservation and recovery, please refer to its Species in the Spotlight Priority Action Plan.[12]

Guidance: Salmon fisheries in 2025 should be managed consistent with the consultation standard prohibiting directed fishing for coho and retention of coho salmon in Chinook salmon-directed fisheries off California.

ESA-listed Chum Salmon Species

Hood Canal Summer-run Chum Salmon ESU

Background: Chum salmon are not targeted, and are rarely caught, in Council salmon fisheries.[13] In 2001, NMFS approved the Summer Chum Salmon Conservation Initiative under Limit 6 of its ESA 4(d) Rule. The Initiative describes the harvest actions that must be taken to protect listed Hood Canal summer-run chum salmon both in Washington fisheries managed under the jurisdiction of the Council and Puget Sound fisheries managed by the state and tribal fishery managers.[14]

Under the terms of the Initiative, chum salmon must be released in non-treaty sport and troll fisheries in Washington Catch Area 4 from August 1 through September 30. The Conservation Initiative does not require release of chum salmon in tribal fisheries in catch Area 4 during the same period but does

[12] Species in the Spotlight: Priority Actions 2021-2025, Central California Coast Coho Salmon https://www.fisheries.noaa.gov/resource/document/species-spotlight-priority-actions-2021-2025-central-california-coast-coho-salmon (website accessed February 23, 2025).

[13] PFMC. 2024. Pacific Coast Salmon Fishery Management Plan for Commercial and Recreational Salmon Fisheries Off the Coasts of Washington, Oregon, and California as Revised through Amendment 24. Pacific Fishery Management Council, Portland, OR. December 2022. 84 pages. Available: https://www.pcouncil.org/documents/2022/12/pacific-coast-salmon-fmp.pdf/ (website accessed February 19, 2025).

[14] Washington Department of Fish and Wildlife and Point No Point Treaty Tribes. 2000. Summer Chum Salmon Conservation Initiative: An Implementation Plan to Recover Summer Chum in the Hood Canal and Strait of Juan de Fuca Region. Dated April 2000. 797 p. Available: https://wdfw.wa.gov/sites/default/files/publications/00155/wdfw00155.pdf (website accessed January 27, 2025).

recommend that release provisions be implemented. As in previous years, tribal managers will discuss implementation of these provisions during the NOF planning process.

***Guidance*:** Council fisheries in 2025 should be managed consistent with the terms of the Summer Chum Salmon Conservation Initiative.

Columbia River Chum Salmon ESU

Background: The Columbia River chum salmon ESU has been listed as threatened under the ESA since 1999. In a 2001 biological opinion, NMFS determined Columbia River chum salmon are rarely caught in Council salmon fisheries and that Council salmon fisheries were not likely to jeopardize Columbia River chum salmon.

***Guidance*:** Management constraints in the 2025 ocean salmon fisheries for the protection of listed Columbia River chum salmon beyond those required to address other stocks and species are not considered necessary.

ESA-listed Sockeye Salmon Species

Snake River Sockeye Salmon and Ozette Lake Sockeye Salmon ESUs

Background: Sockeye salmon are rarely caught in Council salmon fisheries.[15] NMFS completed a biological opinion addressing the effects of the fishery on the Snake River Sockeye Salmon ESU in 1999 and on the Ozette Lake Sockeye Salmon ESU in 2001. NMFS determined in those opinions that Council fisheries were not likely to adversely affect Snake River sockeye salmon or Ozette Lake sockeye salmon.

Guidance: No specific management measures to address these sockeye salmon ESUs are necessary to avoid effects not considered in those opinions.

ESA-listed Steelhead Species

Background: One Distinct Population Segment (DPS) of steelhead is currently listed as endangered, and ten DPSs are listed as threatened in Washington, Oregon, Idaho, and California. NMFS completed biological opinions in 2001 and 2022 addressing the effects of the fishery on all eleven ESA-listed DPSs. Steelhead are rarely caught in ocean fisheries, and retention of steelhead in non-treaty commercial ocean fisheries is currently prohibited. The biological opinions do not require any specific measures to limit fishery impacts to steelhead. However, historically, the Council and states have prohibited the retention of steelhead in ocean recreational fisheries, to minimize the effects of the fisheries on ESA-listed steelhead.

Guidance: Barring significant new information, we expect that the analysis in the biological opinions addressing steelhead to remain valid as long as Council and states continue to prohibit the retention of steelhead in ocean non-tribal fisheries, and the treaty tribal fisheries minimize the effect of whatever catch may occur.

[15] PFMC. 2024. Pacific Coast Salmon Fishery Management Plan for Commercial and Recreational Salmon Fisheries Off the Coasts of Washington, Oregon, and California as Revised through Amendment 24. Pacific Fishery Management Council, Portland, OR. December 2022. 84 pages. Available: https://www.pcouncil.org/documents/2022/12/pacific-coast-salmon-fmp.pdf/ (website accessed February 19, 2025).

ESA-listed Southern Resident Killer Whale (SRKW) DPS

Background: The SRKW DPS was listed as endangered under the ESA in 2005. In 2021, NMFS approved the Council's Amendment 21 to the FMP, which added provisions to limit the effects of the fishery on Chinook salmon prey availability for SRKWs, after concluding in a biological opinion that fisheries managed consistent with the FMP as revised through Amendment 21 would not likely jeopardize SRKW or adversely modify their critical habitat. That biological opinion is available here: https://repository.library.noaa.gov/view/noaa/29545.

Amendment 21 to the FMP identifies a low abundance threshold of Chinook salmon in NOF waters below which the Council would implement additional management measures in the ocean salmon fishery, coupled with commitments from the states to implement control zone closures in state waters through state regulatory processes. The low abundance threshold is calculated using the FRAM model as informed by Chinook salmon stock distributions provided by the Shelton model. Updates to both models were utilized for adoption of an updated abundance threshold at the November 2022 Council meeting consistent with provisions of Section 6.6.8 of the FMP.

NMFS remains committed to working with the Council, states, tribes, and our other partners to take actions to address all of the primary threats to SRKWs, including prey availability, vessel noise and disturbance, and pollutants, in order to improve conditions for the whales. We recognize that prey availability is only one element that has contributed to the current condition of SRKWs and fisheries are only one source of potential risk.

SRKW is one of ten species identified in NMFS' "Species in the Spotlight" initiative because the DPS is at high risk of extinction. For more information about actions for its conservation and recovery, please refer to its Species in the Spotlight Priority Action Plan.[16]

Guidance: During its March meeting, the Council should follow the process outlined in the FMP (Section 6.6.8 of the FMP, added through Amendment 21) to estimate and report the pre-fishing (October 1) adult Chinook salmon abundance[17] based on 2025 forecasts for each of the five spatial areas defined by the ad hoc SRKW Workgroup: NOF, Salish Sea, southwest West Coast Vancouver Island, Oregon coastal waters, and California coastal waters. The Council should compare the 2025 abundance estimate for the NOF area to the recommended low abundance threshold (as adopted at the November 2022 Council meeting). If the 2025 abundance estimate for NOF is less than the low abundance threshold, the Council should implement the management measures as described by the FMP through Amendment 21. We also acknowledge the states' commitment as stated in the FMP (section 6.6.8) to implement management measures in state waters through state regulatory processes when the projected abundance is below the threshold. In addition to the evaluation of the Chinook salmon low abundance threshold, NMFS will use the pre-fishing abundance estimates across all five spatial areas, provided by the Council, in on-going monitoring of available Chinook salmon abundance as it relates to available prey and SRKW spatial distribution.

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[16] Species in the Spotlight: Priority Actions 2021-2025, Southern Resident Killer Whale. https://www.fisheries.noaa.gov/resource/document/species-spotlight-priority-actions-2021-2025-southern-resident-killer-whale (website accessed January 10, 2025).

[17] Based on an arithmetic mean of the October 1 starting cohort sizes (time step 1 of the Fishery Regulation Assessment Model) for the specific years identified in section 6.6.8 of the FMP.

Conclusion

NMFS West Coast Region expects the Council salmon fisheries in the coastal waters of the EEZ in 2025 will meet the conservation objectives for salmon stocks managed under the FMP and be responsive to the abundance of salmon stocks. For ESA listed stocks, management should be consistent with the proposed actions and RPAs in the biological opinions covering the fishery, as discussed above.

We look forward to working with the Council to develop 2025 ocean salmon fishery management measures consistent with the conservation and management objectives of the FMP, the Magnuson-Stevens Fishery Management and Conservation Act, and the ESA. We are committed to working with the Council to address the issues outlined in this letter. To discuss this guidance further, please contact Ryan Wulff, Assistant Regional Administrator for Sustainable Fisheries at 916-930-3733 or Ryan.Wulff@noaa.gov.

Sincerely,

Jennifer Quan
Regional Administrator

cc: Merrick Burden, Executive Director, Pacific Fishery Management Council
Ryan Wulff, Assistant Regional Administrator for Sustainable Fisheries, NMFS WCR
Susan Bishop, Anadromous Harvest Management Branch Chief, NMFS WCR