

Fish Program Briefing Paper

Grays Harbor coho impact rate change

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Action Needed:

Policy Decision

Briefing Only

Proposal to deviate from policy guidance in Policy C-3621 regarding allowable impact rates on natural coho returning to the Grays Harbor Basin.

Background:

The purpose of the Grays Harbor Basin Salmon Management Policy C-3621 is to advance the conservation and restoration of wild salmon. Where consistent with this conservation objective, the policy also seeks to maintain or enhance the economic well-being and stability of the fishing industry in the state and provide the public with outdoor recreational experiences and a fair distribution of fishing opportunities throughout the Grays Harbor Basin. To promote the achievement of these objectives, the policy provides a general policy statement, guiding principles, and fishery and species-specific guidance. The policy also recognizes that adaptive management “will be essential to achieve the purpose of this policy.” The policy states that “Department staff may implement actions to manage adaptively to achieve the objectives of this policy and will coordinate with the Commission, as need, in order to implement corrective action.”

The policy includes a risk control provision that presumptively limits the impacts of WDFW-managed fisheries to 5% if a spawner goal has not been achieved for 3 of the last 5 years.

- The 2022 forecasted abundance of Chehalis natural coho, based on smolt outmigration estimates and predicted marine survival, far exceeds the conservation goal. After ocean fisheries are modeled the predicted return to Grays Harbor of Chehalis natural coho is 110,000, more than three times the conservation goal of 28,506. Despite the large size of this predicted return, the risk control provision, if applied without any flexibility, would limit fishery impacts for WDFW-managed fisheries to 5%. There are 40,000 hatchery-origin coho also predicted to return to the Chehalis basin with a hatchery production need of 1,500 adults.
- The Department evaluated potential adaptive management actions that would deviate from the 5% risk control provision but still result in a high likelihood of achieving the spawner goal.

Preliminary analysis indicates implementing a fisheries package for 2022 without this constraint would still provide escapement of more than double the coho needed to achieve the spawner goal.

Four fishery packages were presented to the public during the North of Falcon Grays Harbor fishery discussion meeting held on Monday, March 21st. The first model (NALF) was last year's fisheries with this year's forecasted abundances. This model produced an impact rate on Chehalis natural coho of 4.96%. Three other modeled fishery packages exceeded a 5% impact rate on Chehalis natural coho. These three models contain similar season lengths to past seasons when Chehalis coho was not a constraining stock but vary in the daily limits. Model A allows a two fish limit throughout the season requiring the release of Chinook. Model B allows two fish limits in September and October but is reduced to one fish in November and December and still requires the release of Chinook. Model C allows one fish limit throughout the season, requiring the release of Chinook.

These models were presented to the public to promote conversation and public input and to gauge support for moving forward with the fishery planning process. There was support for models that exceed the 5% impact on Chehalis wild coho as shown in the first table below.

Comparison of Modeled Fisheries Scenarios for Chehalis coho in 2022.

Model	Marine Area 2-2*	Freshwater*	Non-treaty Commercial*	Wild Harvest Rate	Wild Escapement	Number of Proponents
NALF	1,023	6,973	1,983	4.96%	80,852	0
A	4,370	19,855	6,699	20.12%	64,564	0
B	4,353	17,961	6,699	18.95%	65,820	5
C	3,225	13,766	6,699	15.42%	69,610	4

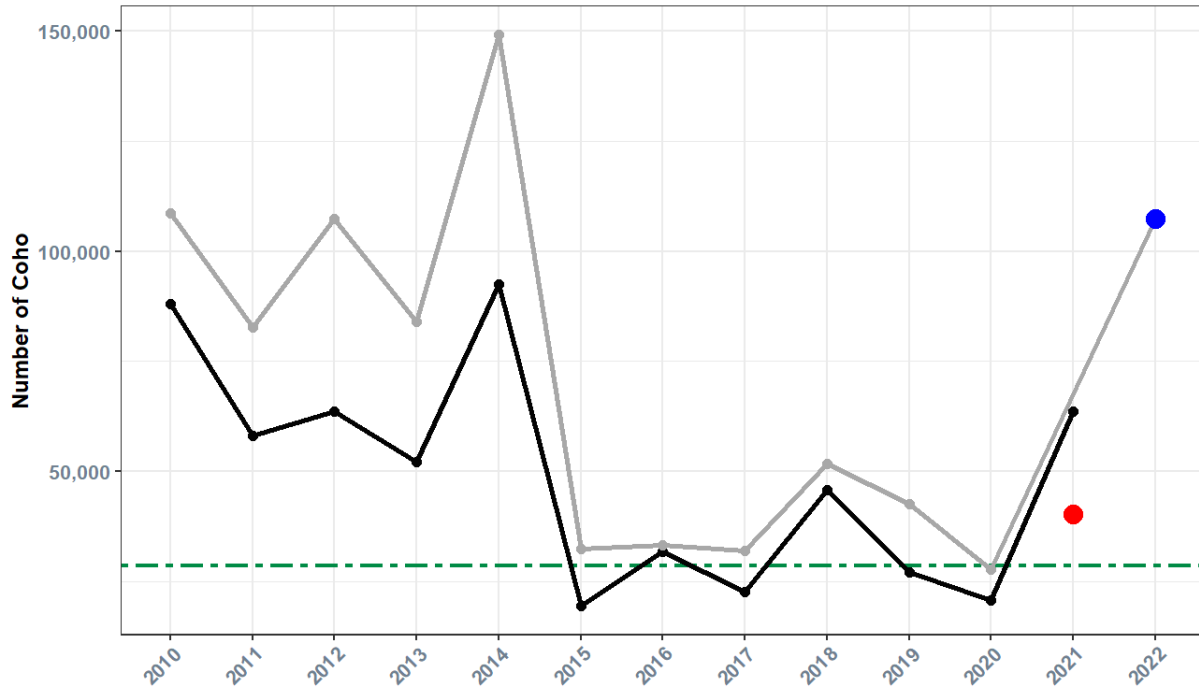
NALF: New Abundances Last Year's Fisheries

**Predicted wild and hatchery harvest combined*

Terminal runsize forecast, terminal runsize, natural escapement, ocean forecast abundance, and post-season abundance for Chehalis coho from 2016 to 2020.

Year	Terminal Runsize Forecast	Terminal Runsize	Natural Escapement	Ocean Forecast Abundance	Post-Season Ocean Abundance
2016	31,037	33,153	31,730	37,908	36,335
2017	41,307	32,011	22,691	50,873	38,656
2018	35,759	51,610	45,689	43,772	69,225
2019	60,842	42,670	26,969	77,763	54,795
2020	43,472	27,717	20,675	54,334	33,411

Chehalis Coho



Terminal runsize (in gray) and escapement (in black) for Chehalis natural-origin coho from 2010 to 2022 shown with the escapement goal of 28,506 (in green). This year's forecast of 107,442 is depicted with the blue dot and last year's forecast of 40,313 is shown with the red dot. Note that last year's return exceeded the forecasted abundance.

Alternatives:

- A. Accept the proposed adaptive management actions.
 - a. Develop a fall 2022 WDFW salmon fisheries package that exceeds a five percent impact on Chehalis natural origin coho but provides assurance that preseason objectives are to provide escapement of enough coho to exceed double the conservation objective. This package will be developed to advance conservation of Chehalis natural coho by providing more escapement than the conservation objective, while maintaining and enhancing the economic well-being of the local economies and providing some stability for the fishing industry.
 - b. WDFW and Quinault Nation have developed an in-season monitoring tool used to evaluate the abundance of the current year's coho return. Evaluating the catch per effort during the Quinault Nation fishery has shown a close relationship to final escapement for coho in the Chehalis basin. WDFW will utilize this tool in 2022 to

- monitor the progress of the Chehalis coho return and adjust fisheries, as needed, if the return does not look like it will achieve preseason objectives.
- c. WDFW will implement a fishery monitoring plan to evaluate effort and catch during WDFW sport fisheries. This is a new tool available to Grays Harbor fisheries this fall and will provide information needed to implement adaptive management actions if needed, as provided in the Adaptive Management section of the policy.
- B. Status quo, continue to manage Grays Harbor Coho using the current 5% impact rate.

Recommended Alternative:

Alternative A, accept the proposed adaptive management actions.

Analysis of Alternatives:

Next Steps:

Appendix:

Outcome of Briefing: