

Willapa Bay Salmon Management Policy Review

Alternative 4: Manage for a Combination of Wild and Hatchery Fish

FISH AND WILDLIFE COMMISSION POLICY DECISION

POLICY TITLE: Willapa Bay Salmon Management **POLICY NUMBER:** C-XXXX

Cancels or
Supersedes: Policy C-3622

Effective Date: TBD
Termination Date: TBD

See Also: Policy C-3622

Approved {Date} by:

Chair
Washington Fish and Wildlife Commission

Purpose

The purpose of this Policy is to set management objectives and to provide management guidance for natural (in-river) and hatchery production, and recreational and commercial harvest of fall Chinook, coho, and chum salmon populations in Willapa Bay.

Authority Definition and Intent

This Policy is established by the Washington State Fish and Wildlife Commission (Commission) and is applicable to the management by the Washington State Department of Fish and Wildlife (Department) of fall Chinook, coho, and chum salmon (salmon) in Willapa Bay and its freshwater tributaries as the Commission's interpretation of the Commission and Department mandate described in RCW 77.04.112.

The intent of this Policy is to provide guidance for the management of natural- and hatchery-origin production, and recreational and commercial harvest of fall Chinook, coho, and chum salmon in Willapa Bay. Management of natural- and hatchery-origin production and harvest will be transparent and consistent with normal agency operations and existing agency and Commission policies (e.g., C-3624: Anadromous Salmon and Steelhead Hatchery Policy).

Policy Objectives

These policy objectives are a statement of the Commission's values and vision for the future conditions of Willapa Bay environment, the fall Chinook, coho, and chum salmon populations

in Willapa Bay, and the recreational and commercial fishing opportunities in the marine and freshwaters of Willapa Bay.

1. Productive natural-spawning populations that are locally adapted, diverse genetically to maintain adaptability, and occur in densities appropriate for the local environment.
2. Sustainable fishing levels for both recreational and commercial fisheries that maximizes harvest opportunities.
3. Hatchery production is set at levels needed for optimized harvest and suitable for maintenance of natural-origin populations.
4. Management actions associated with harvest, hatchery production, and natural-origin escapement adhere to ecosystem-based management principles that consider the risks and benefits to species and habitats within the Willapa Bay system, including vulnerabilities to a changing climate.

Adaptive Management

Each year appropriate data (performance measures; see below) on commercial and recreational harvest, hatchery production, hatchery surplus, and natural- and hatchery-origin escapement into the rivers of Willapa Bay must be collected and evaluated. These data and subsequent analyses must be used to determine if the policy objectives are being achieved. If objectives are not being optimally achieved, harvest and hatchery production levels should be altered, and escapement goals re-evaluated until objectives are optimally achieved. Monitoring, data collection, and data analyses are conducted as part of normal agency operations, and the adaptive management process allows for changes in commercial and recreational harvest, hatchery production, and natural-origin escapement goals without approval from the Commission.

Guidance

1. Recreational and commercial harvest opportunities in Willapa Bay depend on the availability of hatchery-origin (primarily) and natural-origin adult fish returning to Willapa Bay. Increasing hatchery production from Willapa Bay facilities may increase harvest opportunities but may also decrease production from the natural environment when there isn't a robust method to manage the number of hatchery-origin fish that stray to the natural environment. The Department must manage hatchery production and harvest so that the policy objectives are optimally achieved.
2. The Department shall develop performance measures (e.g., proportion of natural spawners that are of hatchery-origin – pHOS) that estimate the consequence of a specific management action (e.g., number of smolts released from a hatchery) with respect to one or more of the policy objectives. This will allow for appropriate monitoring of management actions and facilitate adaptive management, if necessary.
3. The Department shall investigate the feasibility and cost for the design, installation, operation, and maintenance of weirs in the Willapa and Naselle rivers capable of controlling the number of hatchery-origin fish that stray to the natural environment.
4. The Department shall work with partners (including Regional Fishery Enhancement Groups, nonprofit organizations, the public, and Lead Entities) to protect and restore habitat productivity.

5. The Department shall strive to mark all juvenile hatchery origin Chinook and coho salmon by adipose fin removal and seek funding to improve monitoring and evaluation of chum salmon by internal bone marking or other methods.
6. Hatchery production:
 - a. There can be significant genetic, ecological risks to natural-origin salmon populations that accompany the operation of a salmon hatchery program. There can also be many benefits from well-managed hatchery programs that propagate salmon including the support of sustainable fisheries.
 - b. A Hatchery Management Plan (HMP) shall be developed for each facility in Willapa Bay (Forks Creek, Naselle, and Nemah hatcheries) under the authority of Commissioner Policy C-3624 and each hatchery program shall operate in accordance with the provisions of its HMP.
 - c. Each HMP shall be based on the best available science on the risks of hatchery production on natural origin salmon and contain the essential elements of operational planning that will control aspects such as broodstock collection, mating protocols, and juvenile rearing and release strategies.
 - d. HMP provisions are to reflect a balance between minimizing genetic and ecological risks to coincident natural origin populations and providing for the ecological and societal benefits of hatchery propagated salmon.
7. Harvest management:
 - a. State commercial and recreational fisheries will need to increasingly focus on the harvest of abundant hatchery fish. Mark-selective fisheries are a tool that permit the harvest of abundant hatchery fish while reducing impacts on wild stocks needing protection. As a general policy, the Department shall implement mark-selective salmon fisheries, unless the wild populations substantially affected by the fishery are meeting spawner (e.g., escapement goals) and broodstock management objectives. In addition, the Department may consider avoidance, alternative gears, or other selective fishing concepts along with other management approaches provided they are as or more effective than a mark-selective fishery in achieving spawner and broodstock management objectives. State commercial fisheries directed at species which are forecasted to be below escapement objectives will utilize gear types that provide the most conservation benefit (i.e., tangle nets).
 - b. The Department shall work through the Pacific Salmon Commission to promote the conservation of Willapa Bay salmon and, in a manner consistent with the provisions of the Pacific Salmon Treaty, pursue the implementation of fishery management actions necessary to achieve policy objectives.
 - c. Within the Pacific Fishery Management Council (Council) process, the Department shall support management measures that promote the attainment of Willapa Bay policy objectives consistent with the Council's Salmon Fishery Management Plan.
 - d. The Department shall develop and implement enhanced enforcement strategies to improve compliance with fishing regulations and ensure orderly

fisheries.

- e. North River will be managed as a Wild Salmon Management Zone with no hatchery releases of any species of salmon.
- f. The Department shall conduct Management Strategy Evaluations for stocks to evaluate alternative harvest control rules including, but not limited to, S_{msy} escapement goals. Until such actions are implemented, the Department shall use the following natural-origin spawner escapement goals as harvest control measures.
 - i. Chinook: 4,353
 - ii. Coho: 13,600
 - iii. Chum: 35,400
- g. Fishery Management:

- i. Fall Chinook: Fall chinook fisheries shall be managed to achieve a general priority for recreational fisheries, but to provide for meaningful fishing opportunity for both recreational and commercial fisheries. This general priority shall be accomplished with a management intent to provide the first opportunity for directed fall Chinook fishing to the mixed stock recreational fishery in Willapa Bay as well as an opportunity for recreational fisheries in Willapa Bay tributaries. The Willapa Bay mixed-stock recreational fishery will be managed to the extent that it does not preclude Willapa Bay commercial fishing opportunity or tributary recreational fishing opportunity. Commercial fall Chinook targeted fisheries shall be managed in Willapa Bay areas to achieve natural-origin spawning escapement goals for the Willapa and Naselle rivers and a meaningful recreational opportunity for tributary fall Chinook fishing. Tributary recreational fisheries shall be managed to achieve river-specific natural-origin spawning escapement goals and provide meaningful opportunity prior to spawning area closures in a manner consistent with law enforcement concerns and low water situations.

If the number of natural-origin spawners for either the Willapa or Naselle river natural-origin fall Chinook salmon is less than the spawner escapement goal in 3 out of 5 years running and the pre-season forecast is less than 120% of tributary level escapement objectives, the impact rate on either Willapa and/or Naselle river natural-origin fall Chinook salmon in Willapa Bay fisheries shall not exceed 20%.

No commercial Chinook fisheries shall occur in areas 2T and 2U prior to September 16.

- ii. Coho: Coho salmon fisheries shall be managed to achieve a general priority for commercial fisheries, but to provide for meaningful fishing opportunity for both recreational and commercial fisheries. The Willapa

Bay commercial fishery will be managed to the extent that it does not preclude Willapa Bay mixed-stock recreational fishing opportunity or tributary recreational fishing opportunity. Commercial coho target fisheries shall be managed in Willapa Bay areas to achieve the aggregate natural-origin spawning escapement goals and recreational opportunity for tributary recreational coho fishing. Tributary recreational fisheries for coho salmon shall be managed to achieve tributary natural-origin spawning escapement goals and provide meaningful opportunity prior to spawning area closures and in a manner consistent with law enforcement concerns and low water situations.

When the pre-season forecast of natural-origin adult Coho is less than the aggregate spawner escapement goal, or the number of natural-origin spawners is less than the spawner escapement goal in 3 out of the last 5 years, fisheries in the Willapa Bay Basin will be scheduled to result in an impact of no more than 10% of the adult return.

- iii. Chum: Chum salmon fisheries shall be managed to achieve a general priority for commercial fisheries, but to provide for meaningful fishing opportunity for both recreational and commercial fisheries when run sizes are sufficient to support fisheries. Commercial and recreational directed at chum salmon shall be managed to achieve the aggregate spawning escapement goals. The commercial fishery priority shall be accomplished by providing the first opportunity for chum directed fishing to the mixed stock commercial fishery in Willapa Bay, with sufficient escapement to provide a secondary opportunity for recreational fisheries in Willapa Bay tributaries.

Chum fisheries will be managed to achieve the aggregate spawner escapement goal for Willapa Bay naturally spawning Chum salmon. Until the spawner escapement goal is achieved in 2 consecutive years, the maximum fishery impact on the aggregate chum population shall not exceed 10% and no commercial fisheries will occur in the Chum conservation period from October 15-31 period. If the number of natural-origin spawners was less than the spawner escapement goal in 3 out of the last 5 years, the Department shall implement the following measures:

- The predicted fishery impact for Chum in Willapa Bay Basin will be scheduled to result in an impact of no more than 10% of the adult return.
 - When the Chum pre-season forecast is 85% or less of the escapement goal, the predicted fishery impact for Chum in Willapa Bay Basin will be scheduled to result in an impact of no more than 5% of the adult return.
- iv. Planning for Willapa Bay species-specific fisheries shall take into account incidental impacts in fisheries targeting the other species

named in this policy and steelhead. The Director shall use their discretion in prioritizing the number of incidental impacts allocated to each species-specific targeted fisheries in Willapa Bay, with a goal of achieving policy objectives.

Delegation of Authority

The Commission delegates the authority to the Director, through the North of Falcon stakeholder consultation process, to set seasons for recreational and commercial fisheries in the Willapa Bay Basin, and to adopt permanent and emergency regulations to implement these fisheries.

This guidance establishes a number of important conservation and allocation principles for the Director and agency staff to apply when managing the fishery resources of Willapa Bay. The Commission fully expects that the Director and agency staff will continue to communicate with the public, and the Commission, to consider new information, evaluate alternate means for carrying out policy objectives, and consider instances in which it may make sense to deviate from the presumptive path forward. That is the nature of both adaptive management, and policy implementation, when faced with a dynamic natural environment.