

Concise Explanatory Statement

Willapa Bay Commercial Salmon Regulations for 2013

Introduction

This Concise Explanatory Statement (CES) relates to rules being adopted by the Washington Department of Fish and Wildlife (WDFW) to amend Washington Administrative Code (WAC) 220-40-021 and -027. The CES contains two principle sections. Section I describes the rule being adopted, the process used in adopting the rule, and the resource management objectives advanced by adoption of the rule. Section II discusses issues raised in the rulemaking and the agency's analysis and resolution of those issues.

I. The Adopted Rules, Rule-making Process and WDFW's Resource Management Objectives

Overview of the Rules Adopted

The rules being adopted provide a schedule to open up the 2013 summer and fall commercial gillnet salmon fisheries (Chinook and coho) and white sturgeon in Willapa Bay. Without the proposed rules, commercial fishing for salmon is closed in that area (See WAC 220-40-021 and 220-40-027).

The rules being adopted amend existing permanent rules that opened the commercial salmon fisheries in that area, as defined in WAC 220-22-020, for the 2012 season ending November 19, 2012 – WAC 220-40-021 and WAC 220-40-027. WAC 220-40-021 specifies the commercial gear and methods of harvest that must be utilized, the locations of fishing activity, and the duration of the summer commercial salmon season, for fisheries occurring between July 5 and August 15 annually. WAC 220-40-027 specifies the permissible commercial gear and methods of harvest that must be utilized, the locations, and the duration of the fall commercial salmon season, for fisheries occurring between August 16 and December 31 annually.

The rules are being adopted pursuant to the authorities found in RCW Title 77, including those provisions in RCW 77.04.012 that establish conservation as the paramount objective - “to conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource.”

Where consistent with that conservation objective, the Department must also “seek to maintain the economic well-being and stability of the fishing industry in the state”; “promote orderly fisheries”; and “enhance and improve recreational and commercial fishing in this state.” These are broad state-wide objectives and do not necessarily focus on one region, one fish species or one segment of harvesters. The term “fishing industry of the state” includes both commercial and recreational interests.

While these objectives are ultimately applied on a state-wide basis, the agency considers regional interests, individual fishing sectors and the interests of varying gear-type groups when undertaking its efforts to promote state-wide management interests. Accordingly, while the agency considered allocation of fishing opportunity for various species and gear groups in

Willapa Bay, those evaluations are made against a backdrop of historical Pacific Coast fishing opportunities throughout the year. For example in Ocean fisheries occurring in Marine Areas 1-4, the sport fleet is allocated 83% of the total catch of coho whereas Chinook fishery impacts are allocated 50:50 between recreational and commercial. As returning salmon move from the ocean to northern Washington coastal tributaries such as the Quillayute, Hoh, and Queets, sport fisheries are allocated 100% of the state share of harvestable Chinook, coho, chum, and sockeye. Moving south to Grays Harbor and its tributaries, average recreational catch over the recent ten years (2003-2012) accounted for 76% of Chinook, 68% of coho and 21% of chum harvested by state licensed fishers.

The rules being adopted continue to implement policies of the Fish and Wildlife Commission regarding conservation, recovery of wild fish population and the reform of the propagation and management of hatchery fish stocks. (Hatchery and Fishery Reform – C-3619; 2013-14 North of Falcon Policy – C-3608; Policy Guidelines for Pacific Fishery Management Council Representation C-3603).

The proposed rules also incorporate the recommendations from the North of Falcon/Pacific Fishery Management Council process that included significant public input. WDFW's objectives for those processes are outlined in the 2013-2014 North of Falcon policy and the Policy Guidelines for Pacific Fishery Management Council Representation adopted by the Fish and Wildlife Commission. The North of Falcon/PFMC process is the forum in which Washington works with the State of Oregon, tribal co-managers, federal fishery managers and stakeholder groups to plan for and execute fisheries of interest to state, tribal and federal entities. Through that process, the management entities identify the predicted abundance of fish, the desired escapement objectives, the harvestable surplus, allocations available to state and tribal harvesters and sets the stage for subsequent development of Washington State commercial and recreational season, including time, manner and method regulations that will be used to implement those seasons. Within this process, Willapa Bay is unique in that it is solely managed by the State of Washington and fisheries resources harvested from within these geographic areas are managed solely for harvest by state licensed recreational and commercial fisheries.

Recent Evolution of Willapa Bay Salmon Management

The management of salmon resources in Willapa Bay and its tributaries has changed dramatically over the last decade. In 2003, a conservation objective to protect natural Chinook was put into practice. This objective limited the overall harvest rate to no more than 30% by all participants. Also, in the early 2000's, the Hatchery Scientific Review Group (HSRG) reviewed all of the state's hatchery programs and practices to assure our State's resources were managed for long-term health and sustainable harvest. In 2008, the WDFW Commission adopted the Hatchery and Fishery Reform policy (C-3619) that directs the department to implement the principles created by the HSRG.

The Commission policy brought about further refinement of the Willapa Bay Management Plan that has been in place since January 2010. This plan was developed with input from our previous Willapa Bay Salmon advisory group. A major outcome of that planning process was the modification to the harvest rate for Chinook. Instead of a 30% cap on Chinook throughout the Willapa basin, the new management plan implemented a 30% harvest rate on the Chinook bound for the Naselle River. Another significant portion of this change was to modify production at all

three Willapa Bay facilities but, without a reduction to production level change bay wide. With implementation of production shifts for Willapa hatchery facilities, it was understood that WDFW would need additional information about the migration and harvest of individual stocks of returning Chinook in order to continue providing harvest opportunities on these hatchery populations without producing unacceptable adverse effects on their natural counterparts. To achieve this objective, alterations were made to fishery regulations describing the marine catch areas and creating multiple new marine catch areas. With these changes in place, modifications to the recreational and commercial fisheries were then considered with a view to progressively implementing this revised management regime and attaining identified conservation objectives – both short term and long term – over time.

In public meetings from previous years, fishers were questioned about the abundance of salmon in various areas of Willapa Bay. The overwhelming response was that the newly revised marine area 2T was a common utilized and highly desirable fishing location for all of the agency's constituents. Additional information gleaned from recreational fishers indicating that they valued periods of continuous fishing time without the presence of commercial nets. These facts have been affirmed each season and little has changed relative to these important factors that recreational harvest groups have used to define a quality marine fishing season.

With our acquired knowledge of prime fishing locations, WDFW sets in motion the adoption of a fishing season that provides for a separation of commercial and recreational fisheries in time and area. This allows WDFW to achieve each gear group's often different goals, their desire to fish unobstructed and our conservation and management objectives. In setting salmon seasons the last couple of years, further refinement was made to fisheries targeting the large and ever popular marine catch area 2T by dividing it into eastern and western sections. This allowed recreational fishers to fish the western entrance of Willapa Bay absent the commercial fleet and gave the commercial fleet an opportunity to fish the eastern portion eliminating much of the conflict between the user groups.

Production shifts were finalized for the spring releases in 2010, 2008 brood year coho and 2009 brood year Chinook. Program releases for Chinook went from 2 million from each Fork Creek and Nemah hatcheries and 500,000 coho to 3million and 3.2 million Chinook from each Nemah and Forks Creek respectively and 300,000 coho from Forks Creek. The remaining coho, 200,000 from Forks Creek and 500,000 from Nemah were shifted and released from Naselle making the total coho release 1.4 million, while the Naselle Chinook production was modified to 800,000. With the Chinook production shifting northerly within the bay, and the harvest rate limitation of 30% on Naselle Chinook, coded wire tag data was gathered in test fisheries. This information remains the foundation for our current fishery structure because it provides critical information about stock contribution in many of the marine areas. For instance, it is good to know that Naselle Chinook were not present in Area 2U, as one might guess most hatchery fish entering the mouth of the Willapa River would be destined for the Forks Creek Hatchery. Also with the increased Chinook production coming from Forks Creek it is easy to see the importance of Area 2T for commercial and recreational fishers. Another example of desirable stock composition information is in Area 2R where CWT information shows that returning stocks are heavily weighted to Nemah bound Chinook. This is likely due to the relative abundance of Nemah and Naselle stocks, and offers the opportunity to access additional Nemah Hatchery

origin Chinook with less impact on Naselle stocks than fishing in Area 2M; near the mouth of the Naselle River.

With the complexity of hatchery and natural populations and competing interests of recreational and commercial fisheries, the department will need to maintain effective communications with stakeholders, monitor fisheries, and conduct additional research on key questions, as funding allows, and continue making progress on conservation objectives while providing quality fishery opportunities for the state's fishing groups.

Rule Development Process

Advisory Group Meetings and North of Falcon Meetings

WDFW solicited new members for the Willapa Bay and Grays Harbor Salmon Advisory Groups in 2012. Group members were appointed by the Director in early January 2013. Each group is comprised of commercial and recreational stakeholders with roughly equal distribution between commercial and recreational interests; members are also selected to represent different geographical areas of each harbor. The annual public process for developing salmon fishery rules, known as North of Falcon (NOF), began January 31, 2013 with a joint meeting between the Willapa Bay and Grays Harbor Salmon Advisory Groups that was held at the Region 6 Headquarters Office in Montesano. The purpose of this joint meeting was to provide operating protocols and guidelines for advisory groups assisting the agency (see WDFW Operating Protocols and Guidelines for Advisory Groups, April 2010) in the development of rules used in opening fisheries. This meeting also served to provide introductions to new and returning members of the advisory groups and allowed WDFW to establish a schedule of meetings for the groups to occur during February and March in alignment with other portions of the NOF process. Notice of all NOF meetings open to the public was available on the WDFW website in late January and a notice to the public in the form of a news release was provided on February 7, 2013.

The second meeting, also a joint meeting of the advisory groups, was held February 28, 2013 at the Region 6 Headquarters Office in Montesano. WDFW presented and discussed the 2013 pre-season forecasts of salmon abundance for Chinook, coho and chum populations in Willapa Bay and Grays Harbor and their respective tributaries with the advisory groups. There was also discussion and clarification of non-advisor attendance and participation at advisory group meetings. Meetings of advisory groups are not subject to the Open Public Meetings Act; however the advisors were informed that if non-advisors wished to attend, WDFW would allow it provided their attendance was as an observer only, not participating in group discussion.

The first public meeting of the 2013 North of Falcon process was March 1, 2013 at the Natural Resources Building in Olympia, WA. WDFW presented the 2013 run forecasts for Puget Sound, Columbia River, and the Washington Coastal systems as well as historical data for each area and salmon species. Resource utilization implications of the 2013 forecasts were discussed broadly in a statewide context. This was followed by regional break-out sessions where WDFW staff further discussed 2013 forecasts and resource utilization implications in greater detail and solicited fishery suggestions for those in attendance. Additional Willapa Bay Advisory Group meetings were held on March 12 and 25, 2013. WDFW held Willapa Bay regionally focused

public North of Falcon meetings on March 18, 2013 in Raymond, WA and March 29, 2013 at the Natural Resources Building in Olympia, WA. During these meetings WDFW provided the public with information on the 2013 season planning process, discussed 2013 forecasts and resource utilization implications, engaged the public in dialog regarding fisheries, collected input on fishing season structures for the commercial and recreational fisheries, possible rule changes, and provided the public with information on the status of the 2013 planning process. Finally, a joint advisory group meeting was held on April 15, 2013 at the Region 6 Headquarters Office in Montesano. The purpose of this meeting was for the advisory groups to review the draft sport pamphlet which goes to publication in the spring of each year.

Rulemaking Activity Leading to the Rules Being Adopted

In addition to the public involvement provided in the NOF and Advisory Group setting, formal rule making public hearings were held on April 9, 2013 and July 23, 2013. These hearings provide the public with an additional opportunity to comment on the proposed rules published in WSR 13-06-073 and 13-13-075, respectively. The hearing held on April 9, 2013 was attended by six individuals and all six testified. Public comment period for this proposed rule, WSR 13-06-073, was open from March 21 through March 28, 2013. The hearing held on July 23, 2013 was attended by 35 individuals, 21 testified. The public comment period for this proposed rule, WSR 13-13-075, was open from July 11, 2013 through July 23, 2013 and extended through July 25, 2013. WDFW received verbal and written testimony during the public hearings. Additionally WDFW received written comments by electronic mail for both hearings during the North of Falcon and Rule Making process through the WDFW Rules Coordinator.

CR-102 WSR-13-06-073 filed March 6, 2013:

The CR102 published in WSR-13-06-073 (March 6, 2013) provided WDFW's initial proposals for 2013 Willapa Bay commercial salmon fisheries. In proposed WAC 220-40-021, WDFW required the release of chum and natural Chinook, and the agency adjusted the dates of the fishery. Forecasts for chum and natural Chinook returning to Willapa Bay determined that there will be insufficient numbers of these fish to allow directed fisheries on stocks of chum and natural Chinook. Natural Chinook are determined by the presence of an intact adipose fin (unmarked fish). Additionally, requiring the release of unmarked Chinook provides protection for Chinook stocks originating from the Columbia River that may enter Willapa Bay along their migrational pathway prior to entering the Columbia River.

In proposed WAC 220-40-027, WDFW required the release of chum and natural Chinook, and the agency modified the season structure and open areas to reduce the interaction between sport and commercial fisheries. This furthers the objective of maintaining orderly fisheries. Release requirements for chum and natural Chinook reflect 2013 abundance forecast for chum and natural Chinook returning to Willapa Bay. The numbers of both stocks are insufficient to allow directed fisheries.

CR-102 Supplemental WSR 13-13-075 filed June 9, 2013:

A supplemental CR-102 was published in WSR 13-13-075 (June 9, 2013) to incorporate public comments and improve the initial rule proposal.

In the revised proposal for WAC 220-40-021, WDFW adjusted dates for the commercial fisheries to reduce impacts to the sport fishery and provide additional protection to Naselle River natural Chinook. This reflects a desire to ensure conservation objectives are attained while providing meaningful fishing opportunities and to promote orderly fisheries.

In WAC 220-40-027, WDFW amended the proposal by adjusting dates and area closures of the commercial fisheries to separate it from the sport fishery in an effort to reduce conflicts between the two fisheries. Commercial fishing time in Area 2T was adjusted by a closure from 6:01 p.m. August 15, 2013 through 6:00 p.m. September 15, 2013. Three 12-hour closures scheduled for September 22, 29 and October 6, 2013 were included in the season structure of Area 2U in order to ensure additional fish passage to the Willapa River and providing additional sport fishery opportunity. Ten days were removed from the Willapa Bay-wide commercial fishery in November. WDFW also adjusted gear size limitations beginning mid-September to further protect Chinook. This reflects a desire to ensure conservation objectives are attained while providing meaningful fishing opportunities and to promote orderly fisheries.

Written and oral comments received during this process were considered in the development of the final rule, as explained in the “Rationale for Adoption of Rules” section and responses to comments are summarized in “Responses to Comments Received.”

Specific rule-making procedures for Willapa Bay & Grays Harbor fisheries:

Dec. 17, 2012 – Filed CR-101 – intent to open commercial WACs for NOF CR-101 posted online on the Rule Making Center of WDFW website

March 6, 2013 - Filed CR-102, Small Business Economic Impact Statement (SBEIS), and formatted WACs, package posted online on the Rule Making Center of WDFW website – (have to wait at least 45 days after CR-101 to file)

April 9, 2013 – Public Hearing for proposed Willapa Bay & Grays Harbor commercial fisheries WSR 13-06-073

June 19, 2013 – Filed CR-102 Supplemental for Willapa Bay and River Mouth Definitions, SBEIS, and formatted WACs

June 19, 2013 – CR-102 Supplemental Willapa Bay package posted online on the Rule Making Center of WDFW website

July 23, 2013 – Public hearing for proposed Willapa Bay commercial fishery CR-102 Supplemental WSR 13-13-075

Related North of Falcon/Pacific Fisheries Management Council (Pacific Council) activities for Willapa Bay & Grays Harbor fisheries (unless otherwise noted all meetings occurred in the WDFW Region 6 Headquarters located at 48 Devonshire Road, Montesano WA, 98563:

January 31, 2013 – Joint Willapa Bay & Grays Harbor Advisory Group Meeting – 6:00-8:00pm

February 8, 2013 – Forecasts deadline, due to the Salmon Technical Team of the Pacific Council

February 28, 2013 – Joint Willapa Bay & Grays Harbor Advisory Group Meeting – 6:00-8:00pm

March 1, 2013 – Kick off Meeting for public obtain forecasts – 8:00-3:00pm NRB Olympia
March 6, 2013 – Grays Harbor Advisory Group Meeting – 6:00-8:30pm
March 6 – 11, 2013 – Pacific Fisheries Management Council (PFMC) Meeting #1 – Tacoma
March 12, 2013 – Willapa Bay Advisory Group Meeting – 6:00-8:30pm
March 13-15, 2013 – North of Falcon Meeting #1 – Lacey and Olympia
March 14, 2013 – Grays Harbor NOF Public Meeting – 6:00-8:30pm Montesano City Hall
March 18, 2013 – Willapa Bay NOF Public Meeting – 6:00-9:00pm Raymond Elks Lodge
March 20, 2013 – Grays Harbor Advisory Group Meeting – 6:00-10:30pm
March 22, 2013 – Grays Harbor Advisory Group Meeting – 7:00-10:30pm
March 25, 2013 – Willapa Bay Advisory Group Meeting – 6:00-10:30pm
March 26-28, 2013 – North of Falcon Meeting #2 Lynnwood
March 28, 2013 – Grays Harbor Advisory Group Meeting – 6:00-10:30pm
March 29, 2013 – Willapa Bay/Grays Harbor NOF Public Meeting – 9:00-5:00pm NRB Olympia
April 6-11, 2013 – Pacific Fisheries Management Council Meeting #2 – Portland, OR
April 12, 2013 – Regional staff pamphlet review and edits – 9:00-5:00pm Hoodspport hatchery
April 15, 2013 – Joint Willapa Bay & Grays Harbor Advisory Group Meeting – 6:00-8:00pm –
Pamphlet review

Rationale for Adoption of the Rules

WDFW considered the facts and circumstances associated with setting the 2013 commercial salmon season in Willapa Bay. The agency carefully reviewed all input (verbal and written) from fishing industry representatives, the Willapa Bay Salmon Advisory Group, and the general public during the 2013 North of Falcon salmon season process and the state's rule making process. WDFW considered and relied on technical and scientific information available to the state's fishery management experts including pre-season forecast abundance of salmon stocks returning to Willapa Bay and historic harvest data from fisheries occurring in Willapa Bay and its tributaries. Important characteristics of the Willapa Bay commercial salmon fishery were considered, including:

- total number of licensed vessels potentially participating in each fishery;
- number of vessels that have actually participated in each fishery in recent years;
- outcomes in terms of target and non-target species catch in recent years;
- potential for transfer from other fisheries;
- catch likely to result from the proposed rules;
- and economic value of these commercial fisheries.

The department also considered fishing preferences of the sport fishery in terms of time, area, tidal cycles, and potential for gear or fishing sector conflict.

Overview of Management Objectives

Potential regulations for the 2013 Willapa Bay commercial salmon fisheries were considered with respect to the following management objectives, listed in order of priority. These objectives were shared with industry representatives, members of the Advisory Group, and the general public during the North of Falcon public process:

- 1) Conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource (RCW 77.04.012) by achieving conservation objectives for all species and stocks.
 - a. Ensure that goals for Willapa Bay salmon stocks are met or exceeded; objectives as identified in the Willapa Bay Management Plan include:
 - Natural spawning Chinook and specifically Naselle River stock which is not to exceed a 30% harvest rate through sport and commercial harvest.
 - Natural spawning Coho with a spawner escapement goal of 13,090.
 - Natural spawning Chum, no directed fisheries and limit incidental harvest and harvest related mortality through all fisheries combined to no more than 10%.
 - b. Manage fisheries to minimize mortalities on non-target species and stocks (including salmonids, non-salmonids, birds and marine mammals) consistent with Fish and Wildlife Commission Policy's POL-C3608 and C3619.
 - c. Manage fisheries to maximize harvest of hatchery origin Chinook and coho while ensuring that hatchery broodstock collection goals, as identified in the Future Brood Document are achieved.
- 2) Maintain the economic well-being and stability of the fishing industry (RCW 77.04.012); allow a sustainable level of harvest sufficient to provide opportunity for each gear type.
 - a. Recreational fishing opportunity will be considered and prioritized for fishery management in the marine area during August and early September.
 - b. Full fleet commercial fishing opportunity will be the priority in the marine area beginning in mid-September.
 - c. Unanticipated management issues identified in-season shall be resolved by WDFW staff working with the appropriate sport and commercial representatives.
 - d. Utilize selective harvest techniques as a tool to achieve conservation objectives and full utilization of hatchery production.

Conservation Management Objectives

Objective 1a: Ensure that goals for Willapa Bay salmon stocks are met or exceeded.

Species and stocks managed for conservation are incidentally impacted in fisheries defined by these rules as adopted. The adopted rules for these commercial fisheries are constructed to attain the conservation objectives defined for each species, stock, or management unit (Table 1). There

are two conservation metrics used for each species, stock, or management unit in Willapa Bay. For the three management units that drive conservation objectives in Willapa Bay, one for each species, the conservation objective is expressed either as a Terminal Harvest Rate (HR) or as a minimum escapement goal. The HR is the mortality, expressed as a portion of the number of fish in the management unit entering Willapa Bay, resulting from fisheries adopted in this rule and those resulting from recreational fisheries that occur in Willapa Bay and its tributaries. Spawner escapement is the number of fish in a given management unit that escaped fisheries and are later estimated to spawn in the wild. Table 1 displays the primary management unit for Chinook, coho, and chum, the conservation objective, and the anticipated impact of the fisheries adopted through this rule. The adopted rules define schedules with open fishing periods. These fishing periods achieve our conservation objectives based on pre-season forecasts of abundance.

Table 1. Conservation management units and objectives for Willapa Bay origin Chinook, coho, and chum.

Primary Management Unit	Conservation Management Objective	Predicted in pre-season planning
Naselle Natural Chinook	30% max. total terminal HR	29.7%
Willapa Bay Natural Coho	13,090 min. spawner escapement	44,608
Willapa Bay Natural Chum	10% max. total terminal HR	9.2%

The agency will use in-season information, where applicable, to update pre-season forecasts of stock abundance and may use that information to revise estimates of the allowable catch for each species, stock, management unit or fishery. This information is used by the agency to determine whether management objectives for an area, species, stock, and management unit are being achieved and if in-season adjustments are needed.

Objective 1b: Manage fisheries to minimize mortalities on non-target species and stocks

Fish and Wildlife Commission Policy number C-3608, titled *2013-2014 North of Falcon*, directs the department to manage fisheries to minimize mortalities on non-target species. In structuring rules for the 2013 commercial salmon seasons, WDFW considered the impact of fisheries on non-target species; including Endangered Species Act (ESA) listed green sturgeon, various stocks of Columbia River-origin Chinook, as well as other fish and wildlife species of concern. The adopted regulations are structured to help ensure that incidental mortalities on non-target species are minimized by focusing fisheries at times and in areas of peak abundance for target salmon stocks, while avoiding times and areas with higher incidence of non-target species. When applying a regulation or rule to minimize bycatch, WDFW has considered the best available scientific information concerning the potential impact of these fishing seasons on non-target species.

By-catch encounters are assessed through the use of on-board monitoring of gillnet vessels. For Chinook, data is collected to compute the ratio of marked to un-marked Chinook encountered. That ratio is then applied to the total landed catch of marked Chinook during the period of time the observations are associated. For chum the metric used is the ratio of chum to coho which is similarly expanded to estimate total encounters. Both of these assume that encounters observed are similar and representative across fisheries within the timeframe observed. An estimate of

total by-catch encounters is then multiplied by the release mortality rate appropriate for the gear-type to estimate the total release mortalities for a given species, stock, or management unit. This estimate in combination with other fishery, biological, and escapement data, is then used to calculate an estimate of the total terminal harvest rate which is then compared to the conservation objective and that which was predicted pre-season to determine if conservation objectives were achieved or exceeded.

In addition to modeling expected impacts, the rule adoption process considered gear types and fishing techniques that are useful in selective fisheries. For example, studies have shown that recovery boxes are effective in increasing survival of salmon using a gillnet (Farrell 2001). WDFW *REQUIRES* the use of recovery boxes in the commercial fishery being adopted. Because that harvesting activity will come with incidental harvest of non-target species, the selective fishing regime requires release of natural, unmarked Chinook and also implements techniques to minimize release mortality. Each boat must have two operable recovery boxes. Each box must be operating during any time the net is being retrieved or picked. The recovery box must meet size and flow requirements (See WAC 220-40-020 and -027). These requirements include specific minimum flow of 16 gallons per minute in each chamber of the box and the flow must not to exceed 20 gallons per minute. Each chamber of the recovery box must include a water inlet hole and water outlet hole opposite the inflow.

Recovery boxes are a useful tool for reviving fish of a given species or stock that is required to be released if they are caught incidentally to the harvest of species, or stock being targeted. These recovery boxes provide fish the opportunity to recover from capture and handling in a controlled environment. While in a recovery box they receive a constant flow of oxygen-rich water, they are also protected from predator, such as pinnipeds. During handling, it is important that exposure to the air is kept to a minimum. Therefore it is necessary to quickly release the fish or move it to a recovery box. Many of the recovery boxes are constructed such that one end of each chamber had a removable panel which allow fish to be released without being handled. The effectiveness of a recovery box can be reduced if they are loaded with too many fish at one time. Alternatively, recovery boxes which do not meet these requirements or are operated improperly may not deliver a sufficient flow of oxygen-rich water, also rendering them less effective.

Not all fish should be subjected to the additional handling stress that comes with being removed from a net and placed in a recovery box. Only lethargic or bleeding fish should be placed in a recovery box. WAC 220-40-020 and WAC 220-40-027 specify that bleeding or lethargic must be placed in the recovery box prior to being released to the river/bay. While the determination to place a fish in a recovery box may seem somewhat discretionary it is not an arbitrary one. All fish placed in recovery boxes must be released to the river/bay prior to landing or docking. WDFW acknowledges that they rely upon harvesters to exercise appropriate judgment in determining the status of a fish that must be released. This is similar to other fisheries – both commercial and recreational – where rules mandate conduct and the agency relies upon good faith efforts to comply. For commercial fishermen engaging in fisheries where release requirements are in place fishermen are required to complete a Best Fishing Practice class. This classroom training uses videos and a Powerpoint presentation instructing fishers why and how to use the recovery box properly. Also included in the training is how to assess the condition of a fish required to be released and make a determination of whether the fish is to be released immediately or if it goes into the recovery box prior to release.

WDFW biologists and technicians conduct on-board observations on a portion of the vessels participating in fisheries. The fisher must demonstrate to department employees, fish and wildlife enforcement officers, or other peace officers, upon request, that the pumping system is delivering the proper volume of fresh river/bay water into each chamber. WDFW enforcement officers monitor the use of the recovery boxes in the commercial gillnet fishery and randomly board vessels to check among other things, the working condition of the recovery box to ensure that it is being operated correctly.

By-catch encounters of green sturgeon are required to be directly reported by fishermen as well as from data collected during on-board monitoring of gillnet vessels by WDFW staff.

Release mortality rates for green sturgeon encountered in the commercial gillnet fishery are based on work conducted on green sturgeon in the lower Fraser River, British Columbia Canada.

Injuries and mortality of seabird and marine mammals encountered in Willapa Bay gillnet fisheries are a rare occurrence based on comprehensive monitoring of gillnet effort during the years 1991-1993. No Marbled Murrelet bycatch was observed in Willapa Bay during observer programs in summer and fall 1991, 1992, and 1993 for non-tribal fisheries (Jefferies and Brown 1993, WDFW 1994). Between 1% and 13% of nets were monitored each season and year. Bycatch included Common Murres, cormorants, loons, grebes, and other alcids. Some unidentified alcids and other birds were recorded, these may have included murrelets. The Marine Mammal Protection Act requires NOAA to address the impacts of all fisheries on individual marine mammal stocks and classify those fisheries into three categories based on their “incidental take” of marine mammals. All fisheries require marine mammal injuries or mortalities to be reported to the National Marine Fisheries Service within 48 hours. The Willapa Bay commercial gillnet fishery are designated as a Category III fishery “with a remote likelihood or no known serious injuries or mortalities” to marine mammals and have no requirements beyond reporting any mortalities. As a Category III fishery there is no requirement for fishers to obtain an annual Marine Mammal Take Authorization from NOAA.

In summary, WDFW concludes that the adopted regulations for the 2013 Willapa Bay commercial salmon seasons are reasonably constructed to meet the objective of minimizing overall bycatch.

Objective 1c: Manage fisheries to maximize harvest of hatchery origin Chinook and coho while ensuring that hatchery broodstock collection goals, as identified in the Future Brood Document are achieved.

Chinook Management

Chinook fisheries will continue to be based on pre-season forecasts. Managers will maximize harvest opportunity on hatchery fish in a manner that is consistent with achieving objectives and goals for healthy, diverse and sustainable natural spawning populations as presented in the Willapa Bay Management Plan and identified in Table 1 above.

Briefly, for Chinook programs, this is being accomplished mainly by shifting the location of large harvest augmentation programs away from the Chinook population in the Naselle River,

which has been designated as a *Primary Population*, and serves as the primary management unit. The current 30% pre-season terminal harvest ceiling management will be maintained as the pre-season management objective for the Naselle Chinook population, other Chinook stocks will be managed to allow for higher harvest rates while achieving natural and hatchery escapement goals. WDFW will evaluate management success on whether the total HR rate is less than 30% and through fisheries and spawning escapement. These goals are designed to fully seed available spawning habitat while managing gene-flow between natural and hatchery populations in a way that increases the overall viability of Willapa Bay Chinook.

Coho Management

In 2013 strong returns of both natural- and hatchery-origin coho are expected. Both normal-timed coho as well as late-time coho contribute to the anticipated large return. As a result commercial fisheries being adopted are intended to harvest normal-timed Willapa Bay coho to the maximum extent practical within the constraints of achieving the conservation needs for natural spawning Chinook and chum, while exceeding minimum conservation objectives for coho. In consideration of this, WDFW believes that it is appropriate to provide harvest opportunity during early portion of the late-timed coho return during November without causing risk to the stock.

Chum Management

Willapa Bay chum salmon have historically been managed for commercial harvest and supported through hatchery production. For harvest management purposes, the system-wide escapement goal is 35,400 chum salmon. This goal represents the aggregate goals for six watersheds of Willapa Bay. This goal was established in the late 1980's during which time average escapement was 35,420. At that time, this was viewed as full seeding of the available habitat. The large returns during the 1980s were partially due to the returns of large hatchery releases and generally good marine survival. Beginning with brood year 1989, hatchery chum production was discontinued because of budgetary constraints. Since that time, the spawner escapement goal has been exceeded only seven times. Unlike Chinook and coho, where hatchery influence on natural spawning populations must be managed, river system specific viability goals have not been developed for natural spawning chum.

In consideration of the tendency for chum salmon returns to fall short of the original escapement goal, WDFW in 2009 implemented an eight year moratorium on directed chum fisheries and established a level of incidental impact through encounters with other directed fisheries not to exceed 10% through all terminal area fisheries.

In summary, by managing fisheries adopted for the 2013 Willapa Bay gillnet season to achieve the conservation objectives for natural-spawning Willapa Bay salmon, sufficient numbers of hatchery salmon will escape fisheries to ensure that hatchery spawning objectives identified in the Future Brood Document are achieved are achieved.

Fishing Opportunity Objectives

Objective 2: Maintain the economic well-being and stability of the fishing industry (RCW 77.04.012); allow a sustainable level of harvest sufficient to provide opportunity for each gear type (RCW 77.50.120)

While the rules being adopted under WAC-40-021 and -027 govern commercial harvest, they were not developed in isolation from consideration of rules providing for recreational fisheries in the same waters of Willapa Bay. In the course of developing the rules for commercial harvest, WDFW also considered the quality of the fishing experience for recreational anglers, diversity of harvest opportunity, and the resulting economic benefit to the local community derived from recreational fishing activities. One of the key modifications that has been made to the operation of the commercial fishery in recent years in order to benefit the recreational fishery is the separation of the two sectors. A net free zone was created in commercial catch area 2T during the peak of the recreational fishery occurring between mid-August and mid-September annually. Situated at the entrance to the Bay, Area 2T encompasses a sizable portion of the north end of the Willapa Bay in what is considered to be the prime area for recreational fishing (see Figures 1). Details of the fishing schedule in Area 2T are included below. In addition to this action, the commercial season includes requirement for fishing at night to avoid conflict with recreational fishers in other portions of Willapa Bay during this same mid-August to mid-September time frame. To address concerns for the need to have both Chinook and coho passage through commercial gillnet fisheries in order to feed in-river sport fisheries of Willapa River, WDFW has included breaks in the commercial schedule, these are further described in area specific description of commercial fisheries below.

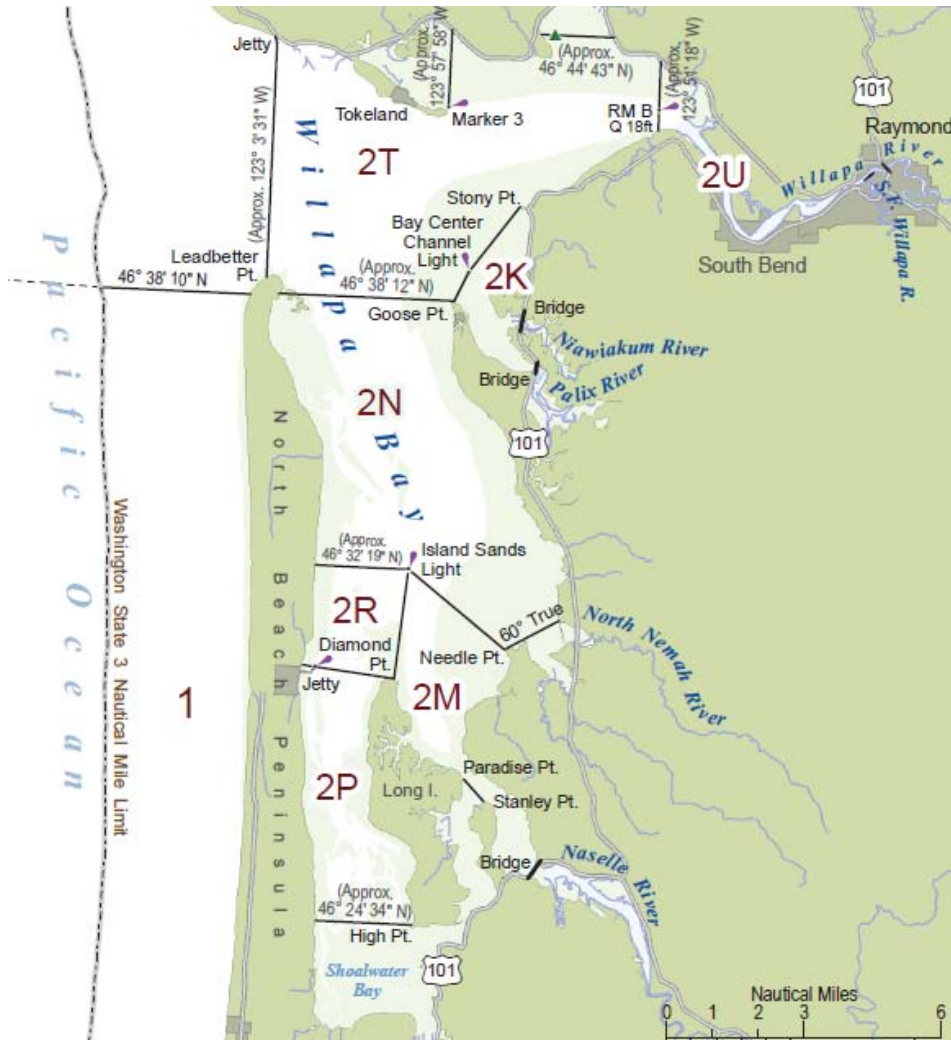


Figure 1. Chart of Commercial Catch Areas in Willapa Bay.

The adopted rules and regulations for these commercial fisheries are designed to contribute to the state-wide objective of maintaining the economic well-being and stability of the State’s entire fishing industry, and to provide a sustainable level of harvest sufficient to provide opportunity for various gear types and groups of harvesters. This management objective is challenging to address, given the diversity of interest across all stakeholders in Willapa Bay. In addition, the economic health and stability of these component fisheries depends on many factors beyond WDFW’s control, including the prices paid for salmon, the abundance of salmon, relative size and quality of salmon, the proportion of vessels choosing to participate in a fishery, the catch rates of vessels that do participate, and related factors.

Prices paid for salmon in these fisheries are influenced by coast-wide and international market conditions, and possibly by the success of local/niche marketing initiatives. Prices paid are also influenced by the abundance of salmon, which WDFW cannot control. While WDFW can open areas to harvest of salmon by license holders, the department cannot control the number of vessels that choose to participate in full-fleet openings. Participation levels in a given opening are driven by several of the other factors listed here, in addition to factors such as fuel prices,

weather conditions, and harvest opportunities on other species and/or in other areas. Catch rates for a given gear will vary between years and between openings within a single year due to changes in salmon abundance, salmon size, migration behavior, weather and tidal conditions, and operational decisions made by vessels participating in the fishery. WDFW cannot control any of these factors.

Given the many factors beyond WDFW's control, the department concludes that the most effective means of positively affecting the well-being and stability of the state's fishing industry is by providing a predictable season structure designed to access the full allowable harvest. This management approach gives fishing groups the ability to plan for upcoming opportunities and to make decisions about when and where to fish. Significant changes to fishery schedules can be disruptive to individual fishers, and the industry as a whole. Changes to a schedule in one fishery can have an effect on outcomes in other fisheries, as the changes may cause license holders to shift participation between fisheries. Schedules may occasionally be adjusted to address apparent instability of the industry. However, WDFW believes it is prudent to avoid annual or short-term adjustments to season schedules because there is significant inter-annual variation in fishery performance, and the outcome of a single year may not indicate that an adjustment is appropriate or necessary to achieve this management objective.

The rationale for how the 2013 rules will promote the well-being and stability of the state's fishing industry and allow a sustainable level of harvest is detailed by individual fishery below. Due to the potential de-stabilizing effect of changes, focus is placed on modifications to schedules from past years and ways the modifications will affect achievement of Objective 2. The rationale for incorporating or not incorporating input received during the North of Falcon process is also included here as well as in Section II of this CES.

Rationale for Season Structure in each Catch Area:

WDFW will continue to implement fisheries that do not disproportionately harvest fish from one segment of returning stocks. This may result in fisheries that are one or two days in duration versus the more consistent multiple-day or "straight through" schedule of the past few years.

Area 2K – Closed. In recent years this area near the town of Bay Center at the mouths of the Palix, Bone, and Niawiakum rivers has been open for 2-24 hour periods over the course of the season. With no hatchery production in these rivers this closure provides protection for natural-origin salmon.

Area 2P – Closed. Area 2P is situated at the extreme southern end of Willapa Bay. The primary tributary to Area 2P is Bear River. Historically Bear River supported large returns of chum. Like Area 2K, there is no hatchery production originating from Bear River. This closure provides protection for natural-origin salmon.

Areas 2N and 2R – Will open August 12, 2013 in conjunction with Areas 2M and 2U. Following the initial opener 2N and 2R will open for two days per week each of the following four weeks. Beginning September 15, 2013 2N and 2R will be open continuously until 6:00pm Saturday October 12, 2013. The final opener will be from noon November 6, 2013 through noon November 20, 2013. This season structure is designed to maximize the harvest of abundant coho and hatchery-origin Chinook in a manner that spreads harvest impacts on all stock across the

return timing as effectively as possible. Situated in the main body of Willapa Bay there is little conflict with the recreational fishery. These two areas are targeting the large run of hatchery Chinook returning to both Forks Creek and Nemah hatcheries as well as abundant hatchery and natural origin coho.

Area 2M – Will open with a season structure similar to 2N and 2R, however due to its proximity to the mouth of the Naselle River it will only be open for 36 hours during the week of August 12, 2013. It will then remain closed through the remainder of August in order to maximize passage of Naselle Chinook through the area. The next opener in Area 2M will be for 12-hours beginning 6:00pm September 3, 2013. Beginning the week of September 9, 2013 openers will follow that of 2N and 2R, again this season structure is designed to minimize impact on Naselle natural Chinook while harvesting the abundant stocks of coho.

Area 2T – Will open with 2N, 2R, and 2U from 6:00am August 12, 2013 through 6:00pm August 15, 2013 it will not re-open until 6:00pm September 15, 2013 when it will again be open on the same schedule as Area 2N and 2R through the end of the season, noon November 20, 2013. This season structure is designed to maximize the harvest of abundant coho and hatchery-origin Chinook in a manner that spreads harvest impacts on all stock across the return timing as effectively as possible. However Area 2T is situated at the entrance to Willapa Bay where a very popular recreational Chinook and coho fishery takes place through early September each year. In an effort to enhance the recreational fishery WDFW feels it is important to restrict the commercial fishery in this area. Fisheries in Area 2T are targeting the large run of hatchery Chinook returning to both Forks Creek and Nemah hatcheries as well as abundant hatchery and natural origin coho.

II. Summary of Public Comments and WDFW's Response

Formal rule making public hearings were held on April 9, 2013 and July 23, 2013. These hearings provided the public with an opportunity to comment on the proposed rules published in WSR 13-06-073 and 13-13-075, respectively. The hearing held on April 9, 2013 was attended by six individuals and all six testified. Public comment period for this proposed rule, WSR 13-06-073, was open from March 21 through March 28, 2013. There were a total of 15 individuals who submitted written comment. In general the comment received during this comment period addressed Grays Harbor, regardless the comments focused on allocation, the code revision process, the usefulness of recovery boxes, and selective fishing as an appropriate tool for reducing impacts to non-target species.

Public comment period for the proposed rule-making in CR-102 Supplemental WSR 13-13-075 was open from July 11, 2013 through July 23, 2013 and extended through July 25, 2013. There were approximately 34 written statements received of these 14 were a form letter with general statements about allocation, economics, and overharvest and opposed the commercial seasons proposed for both Willapa Bay and Grays Harbor. The remainder was largely two variations on a form letter. One of the form letters was formatted as a petition and held 97 signatures. Public hearing hosted by WDFW at the Region 6 Headquarters in Montesano on July 23, 2013, was attended by thirty-five members of the public. Twenty individuals offered verbal testimony in addition written testimony was also received.

All testimony received has been categorized into the following points with WDFW response below.

A. Comment: The proposed season violates the Department's primary mandate of conservation and Fish and Wildlife Commission Policy C3608

As noted above in our *Overview of Management Objectives*, RCW 77.04.012 establishes conservation as the paramount objective - "to conserve the wildlife and food fish, game fish, and shellfish resources in a manner that does not impair the resource." The Fish and Wildlife Commission has defined objectives regarding conservation and recovery of wild fish population through reforming hatcheries activities and management of fisheries through policy C-3619 – Hatchery and Fishery Reform. To further define a path forward on conservation of salmon and steelhead in Washington, WDFW developed a framework of measurable outcomes critical for healthy salmon and healthy fisheries called the 21st century salmon and steelhead management framework. This framework and policy C-3619 directed Region 6 staff to develop the Willapa Bay Salmon Management Plan. This Plan identifies conservation objectives for Willapa Bay salmon stocks. This Plan is also used as the guiding document for the development of annual salmon fisheries in the Fish and Wildlife Commission Policy on North of Falcon – C-3608.

Population Objectives and Designations

The Hatchery and Fishery reform policy instructs WDFW to develop stock (watershed) specific population designations and to apply Hatchery Scientific Review Group (HSRG) broodstock management standards. The HSRG concluded that, in order for hatcheries to contribute to harvest on a sustainable basis, they must be operated in a manner that is compatible with conservation goals for salmon and steelhead resources at both the local and regional levels. This implies that hatcheries must be managed consistent with basic biological principles and viewed as integral components of the affected ecosystem.

Standards provided by the HSRG to guide genetic management are specific to the program type and define the level of hatchery influence on natural populations (Table 2). This influence is often referred to as gene flow – the rate at which genetic material flows from one population, population component or group of populations to another. There are two program types in this regard; integrated, those which spawn with natural populations; and segregated, those which are managed separately from natural populations.

For natural populations, WDFW has adapted the concept of population designations from Endangered Species Act, listed species recovery planning developed by NOAA Fisheries. They established three categories for natural spawning populations: *Primary*, *Contributing*, and *Stabilizing*. When aligned with HSRG objectives for gene flow between hatchery and natural populations we arrive at the metrics identified in Table 2.

Table 2. Broodstock management criteria for Proportionate Natural Influence (PNI), proportion hatchery-origin spawners (pHOS), or rate of gene flow (GF) for each category of natural population that has associated hatchery programs.

Affected Natural Population Type	Broodstock Management Strategy	
	Integrated	Segregated
<i>Primary</i>	PNI > 0.67	pHOS < 0.05; GF < 0.02
<i>Contributing</i>	PNI > 0.50	pHOS < 0.10; GF < 0.04
<i>Stabilizing</i>	PNI ≥ current	pHOS and GF ≤ current

The discussion above is important in understanding the metrics used to determine if WDFW management of fisheries and hatcheries in the Willapa Bay system are meeting conservation objectives or not.

Chinook

The Chinook escapement goal for all Willapa Bay tributaries of 4,353 spawning fish has historically represented the benchmark used to gauge the health of Willapa Chinook. Unfortunately, prior to 2010, there was little ability to differentiate the origin of spawners - hatchery-origin versus natural-origin. The significance of the 2010 return year is that, for the first time, the vast majority of hatchery Chinook was identifiable because their adipose fin had been removed. This practice of clipping the adipose fin on juvenile hatchery reared salmonids is referred to as mass marking. By implementing this technique, WDFW staff was able to differentiate between hatchery- and natural-origin fish spawning in the wild. Prior to this time, WDFW relied on work conducted in the late-1980's which assessed the contribution of hatchery-origin fish spawning in the wild through intensive sampling of spawned fish carcasses on the spawning grounds through the presence of coded wire tags (CWT's). CWT's are a small piece of wire injected into the snout of juvenile hatchery fish prior to release. This produced a "derived" estimate of natural origin spawners. The recent use of mass marking in conjunction with the implementation of selective fisheries provides a better approach to gauge and manage for natural spawner returns.

Beginning in 2010 with the implementation of the Willapa Plan the evaluation of natural spawning success and achievement of conservation objectives has fundamentally changed. The focus of conservation shifted from a Willapa Bay-wide approach toward the Naselle natural Chinook as the primary management unit (see Table 1, additional information in the section above describing **Conservation Objectives**, and Table 3 below). As discussed previously the primary objective is to implement fisheries that will not exceed a 30% terminal Harvest Rate (HR) impact on Naselle natural Chinook. For the combination of commercial Willapa Bay fisheries adopted in this rule, and recreational fisheries occurring in Willapa Bay and its tributaries during the 2013 season, the anticipated HR is 29.7%.

The Plan describes a transition from hatchery and fisheries management strategies where harvest was the primary objective. The Plan lays the groundwork for strategies in both fishery and hatchery management that place a higher values on conservation objectives. New strategies described in the Plan and summarized in this document place individual stocks on a trajectory to achieving conservation objectives. WDFW is in the early stages of implementation and

evaluation. Success will depend upon careful monitoring and adaptive management to achieve both short term and long term conservation objectives.

We anticipate that benefits derived from our focus on the Naselle population will, by proxy, accrue conservation benefits for contributing and stabilizing populations elsewhere in the basin, these populations are listed in Table 3 along with our conservation objectives for these populations. In other words, the Naselle primary objective is the foundation of the Willapa conservation strategy. Additional river system stock objectives are important, but the primary emphasis is on the Naselle because the management objective for that unit will produce its own benefit and contribute to the benefits identified for contributing and stabilizing stocks. We will be assessing the effectiveness of our management strategies in achieving our conservation objectives. WDFW is prepared to make changes to its management strategies through adaptive management, working with the public, as necessary to meet conservation objectives.

Table 3. Watershed/Population specific goals for escapement, viability and hatchery broodstock management of Willapa Bay Chinook.

Watershed/ Population	Escapement goal	Viability Goal	Associated Hatchery Program?	Current PNI – estimated	Broodstock Strategy and metrics
North River/ Smith Creek	991	<i>Contributing</i>	No	1.0	No Program
Willapa River	1,181	<i>Stabilizing</i>	Yes	0.07	Integrated; PNI > current, pHOS < current
Palix River	104	<i>Stabilizing</i>	No	1.0	No Program
Nemah River	224	Not applicable	Yes	Not applicable	Segregated; pHOS (strays) < 0.05
Naselle River	1,547	<i>Primary</i>	Yes	0.04	Integrated; PNI > 0.67, pHOS < 0.30
Bear River	306	<i>Stabilizing</i>	No	1.0	No Program

Coho

Similar to Chinook, Willapa Bay coho stocks have also been designated as *Primary*, *Contributing*, and *Stabilizing*, and hatchery productions programs were defined as either integrated or segregated. The natural spawning goal for Willapa Bay coho is 13,090; natural escapement is evaluated on an individual stock basis to achieve the stock specific goals as identified in Table 4, in doing so the system-wide goal will be achieved.

Table 4. Watershed/Population specific goals for escapement, viability and hatchery broodstock management of Willapa Bay Coho.

Watershed/ Population	Escapement Goal	Viability Goal	Associated Hatchery Program?	Current PNI – estimated	Broodstock Strategy and metrics
North River/ Smith Creek	5,286	<i>Primary</i>	No	1.0	No Program

Willapa River	4,030	<i>Primary</i>	Yes	0.03	Integrated; PNI > 0.67, pHOS < 0.30
Palix River	251	<i>Contributing</i>	No	1.0	No Programs
Nemah River	994	<i>Contributing</i>	No	0.02	No program
Naselle River	2,091	<i>Stabilizing</i>	Yes	0.03	Integrated; PNI > current pHOS < current
Bear River	438	<i>Contributing</i>	No	1.0	No Programs

For the 2013 season the anticipated escapement of natural-origin coho is 44,608. The Willapa Bay planning model used to assess fisheries impacts combines various stocks by area presented in Table 5 are the aggregated stocks with their combined escapement goals and combined predicted spawner escapement; all stock are expected to well exceed their escapement goals for 2013.

Table 5. Willapa Bay coho escapement objectives and 2013 predicted escapement.

Watershed/ Population	Escapement Goal (combined)	Predicted escapement (combined)
North River/ Smith Creek and Willapa River	9,316	30,635
Palix River and Nemah River	1,245	5,405
Naselle River and Bear River	2,529	8,568

Chum

Willapa Bay chum have not been evaluated in the same context as Chinook and coho with an eye toward population designation as described. As described above in Objective 1c: Manage fisheries to maximize harvest of hatchery origin Chinook and coho while ensuring that hatchery broodstock collection goals, as identified in the Future Brood Document are achieved; the goal for Willapa Bay chum is a system-wide aggregate of 35,400. Individual system goal are presented in Table 6 below. The Willapa Plan also describes an interim management goal to not exceed a total incidental mortality rate of 10% through all fisheries in Willapa Bay. In conjunction with this WDFW, beginning in 2009, implemented an eight-year moratorium on directed chum fisheries in Willapa Bay and its tributaries.

Table 6. Watershed/Population specific goals for escapement of Willapa Bay Chum.

Watershed	Natural Chum
North River/ Smith	5,152
Willapa River	2,028
Palix River	3,460
Nemah River	6,266
Naselle River	3,232
Bear River	13,638

Conclusion:

In summary, WDFW management of salmon stocks in Willapa Bay has evolved in recent years beginning with the adoption of a 30% total terminal HR on natural origin Chinook in 2003. This objective was further refined and applied to Naselle natural Chinook as our primary management unit in 2010 with the implementation of the Willapa Bay Salmon Management Plan and associated modifications of hatchery production and fishery management objectives it set forth. This revised management program is in its early stages of development and implementation. Coupled with mass marking of hatchery-origin Chinook and mark-selective fisheries, WDFW is gaining the ability to discretely account for and manage natural-origin stocks; this is a progressive process. Individual escapement goals are a secondary but important conservation objective. As discussed above, total system spawners exceed the original goals for all stocks, but achieving goals for natural-origin spawners of individual Chinook stocks is a work in progress. WDFW believes that it is appropriate to continue utilizing the conservation management objectives at this time and additional limits to both commercial and recreational fisheries that would come with revised conservation objectives are not needed at this time. WDFW believes that close monitoring of the anticipated conservation trajectories is necessary, together with the use of in-season adjustments and the consideration of additional season structure changes that may be needed to ensure that long term conservation objectives are attained. WDFW has concluded that the proposed rule remains the best means for implementing the conservation objectives for Willapa Bay salmon in conjunction with the opening of state fisheries.

B. *Some commenters assert that the proposed season is inconsistent with WDFW's mandate to consider the interests of both sport and commercial fisheries and to promote orderly fisheries that avoid conflict*

Willapa Bay has a long history of commercial harvest. As a result, the commercial fishery within Willapa Bay has historically taken a larger share of fish than recreational harvesters. While it is still the case that the majority of harvest in Willapa Bay is taken by the commercial fishery, the balance has shifted in recent years as WDFW has implemented conservation objectives designed to limit the total fishing impact on natural-origin Chinook and chum salmon. The burden for achieving these conservation objectives has largely been focused on limitations placed upon the commercial fleet (Table 7). Furthermore, the agency also considered the issue of recreational opportunity in the context of Pacific Coast fishing opportunities for both commercial and recreational sectors as part of an overall state-wide objective of providing meaningful harvest opportunities to various fishing interests within the State.

In addition to an increased focus on conservation, WDFW has taken several actions in recent years to increase harvest of hatchery origin Chinook and abundant coho. For example the recreational fishery for salmon in Willapa Bay is open concurrent with the adjacent ocean area (Marine Area 2) beginning June 8, 2013 through July 31, 2013. August 1, 2013 through January 31, 2014 Willapa Bay (Marine Area 2.1) and the larger tributaries including Willapa, Nemah, and Naselle rivers are open with a daily bag limit of three adult salmon. In some cases these changes in season length extended fisheries by starting them two months earlier than in previous years. To further increase harvest by recreational anglers, those who purchase a two-pole endorsement are allowed to fish with two rods in Marine Area 2.1 and the lower Naselle River.

Even though increased fishing limits have been needed to implement conservation objectives, the recreational fishing season and the resulting opportunity has remained the same or even expanded. This is clearly demonstrated for Chinook in Table 8 below, and to a lesser degree for coho. WDFW recognizes the fisheries planning model projects 27% of the Chinook harvest during the 2013 season will occur in the recreational fishery. In context the average occurring during the 2003-2012 time frame has been 34.1% (see Table 8). It is also important to acknowledge that the predicted recreational harvest for 2012 was expected to be 25% of the total harvest and was actually 38%. Conversely in 2010 the pre-season catch in the recreational fishery was predicted to be 37% with actual catch accounting for 31%. The significance of these observations is that the available model has limits on its predictive power for recreational harvest. It is important to watch for significant deviations in recorded catch, but WDFW believes the opportunity being provided, in terms of harvested catch, is likely to remain within the expected range. Aside from total harvest, the agency has also focused on numerous other factors, discussed above, in order to maintain and improve the recreational harvesting opportunity.

Additional information on this subject is presented under the response to comments claiming that WDFW is not following its mandate to enhance recreational fishing opportunity and that there is discrimination against the sport fishery.

To address concerns about gear conflict and the potential that net fisheries reduce the effectiveness of anglers, commercial catch area 2T will be closed to gillnetting from 6:01 p.m. August 15, 2013 to 6:00 p.m. September 15, 2013. This responds to both the need to reduce conflict and provide a quality recreational fishing experience. Information gathered during the rule-making process has shown that area 2T is the location of greatest interest to recreational harvesters and recreational harvesters value fishing opportunity without the presence of competing net fisheries. Accordingly, setting aside net-free fishing times in preferred locations reflects the implementation of fishing regimes designed to provide quality recreational fishing that avoid conflicts and considers the interests of both commercial and recreational harvesters.

Table 7. Number of Commercial fishing days annually 1990-2013.

Year	Jul 5 - Aug 15	Aug 16 - Sept 15	Sept 16 - 7-Oct	Oct 8 - 5-Nov	Nov 6 - Nov 30	Total Days
1990	41	3	21	31	23	119
1991	41	2	21	31	23	118
1992	41	4	20	17	3	85
1993	18	7	19	31	23	98
1994	0	7	18	0	23	48
1995	0	3	18	7	15	43
1996	0	5	18	7	15	45
1997	0	4	18	0	0	22
1998	0	1.5	10	5	0	16.5
1999	0	0	0.5	7	0	7.5
2000	0	2	14	3	25	44
2001	0	2	18	5	23	48
2002	6	1	18	6	25	56
2003	6	1	15	7.75	26	55.75
2004	0	0	17	11	25	53
2005	0	0	14	6	25	45
2006	0	0	15	1	23	39
2007	0	0	16	2 ^a	25	43
2008	0	0	14	5	25	44
2009	0	0	17	6	25	48
2010	2	4	17	0	25	48
2011	2.5	4 ^b	18	0	23 ^c	47.5
2012	3	5 ^d	22	6	20	56
2013	3	6 ^e	22	4	14	49

^a Four 12-hour openers, displayed in terms of 24 hour, one day equivalents.

^b Four 12-hour openers (Aug. 29, 31, Sept. 6, and 8, 2011), displayed in terms of 24 hour, one day equivalents; and two 24-hour openers.

^c Season closed early to prevent white sturgeon guideline from being exceeded.

^d Six 12-hour openers in 2U, 5 in 2N, and 2 in 2M, in addition there were 2 in all areas.

^e Six 12-hour openers in 2U, 2N, and 2R and 3 in 2M; 2T closed.

Table 8. Catch Comparison of Fisheries in Willapa Bay and tributaries

	Chinook				Coho				Chum			
	Commercial	% of catch	Sport	% of catch	Commercial	% of catch	Sport	% of catch	Commercial	% of catch	Sport	% of catch
1990	18,936	95%	1,076	5%	47,974	98%	1,139	2%	5,420	95%	284	5%
1991	25,619	93%	1,932	7%	95,552	94%	6,258	6%	43,768	99%	512	1%
1992	36,659	94%	2,190	6%	10,767	84%	2,031	16%	88,926	99%	651	1%
1993	31,153	88%	4,252	12%	19,837	92%	1,620	8%	12,685	94%	741	6%
1994	21,928	89%	2,839	11%	11,612	83%	2,358	17%	628	50%	633	50%
1995	25,490	90%	2,903	10%	33,505	95%	1,743	5%	1,954	93%	156	7%
1996	37,065	92%	3,024	8%	38,322	90%	4,052	10%	1,730	89%	216	11%
1997	12,311	84%	2,404	16%	1,526	65%	806	35%	18	9%	172	91%
1998	6,765	76%	2,178	24%	13,141	94%	852	6%	9,723	94%	584	6%
1999	265	12%	1,906	88%	5,467	66%	2,836	34%	1,118	81%	254	19%
2000	5,922	81%	1,399	19%	10,326	85%	1,780	15%	6,458	97%	201	3%
2001	5,459	72%	2,121	28%	31,913	85%	5,689	15%	23,353	99%	222	1%
2002	9,452	79%	2,543	21%	59,435	91%	5,685	9%	31,765	98%	662	2%
2003	7,488	70%	3,220	30%	66,470	92%	5,726	8%	36,736	99%	239	1%
2004	4,349	53%	3,889	47%	16,533	88%	2,361	12%	29,720	100%	110	0%
2005	6,523	58%	4,820	42%	49,001	93%	3,892	7%	16,103	100%	46	0%
2006	12,334	69%	5,551	31%	19,948	96%	806	4%	8,065	98%	168	2%
2007	4,112	61%	2,579	39%	8,218	90%	955	10%	280	100%	NR	0%
2008	3,595	55%	2,988	45%	16,699	93%	1,227	7%	3,377	97%	100	3%
2009	6,868	60%	4,623	40%	75,417	92%	6,461	8%	4,694	100%	NR	0%
2010 a/	6,903	68%	3,303	32%	28,568	85%	4,929	15%	1,514	100%	NR	0%
2011 a/	18,916	69%	8,327	31%	48,173	89%	5,818	11%	474	100%	NR	0%
2012 a/	9,726	62%	5,887	38%	25,891	84%	5,046	16%	14,334	100%	NR	0%
avg. 1990-2002	18,233	88.5%	2,367	11.5%	29,183	91.1%	2,835	8.9%	17,504	97.7%	407	2.3%
avg. 2003-2012	8,081	65.9%	4,184	34.1%	35,492	90.5%	3,722	9.5%	11,530	98.1%	221	1.9%

a/ Sport catch data are draft NR - non-retention

C. Comments were received claiming that the proposed season was formulated based upon an inappropriate mortality rate and fails to fully implement selective fishing techniques (e.g. avoidance of non-target species and implementation of appropriate soak times for deployed nets).

For many years WDFW has managed fisheries using various selective techniques including gear, time, area, gender, size, and/or artificial marks such as the absence of the adipose fin or the deformity of dorsal fin. Any one of these may have shortcomings in their effectiveness or in how we may account for the conservation attained through their implementation. WDFW's strategy has been to implement these selective fishing practices adaptively and in a balanced manner – making changes to both commercial and recreational fisheries to implement continually evolving knowledge about the effectiveness of selective fishing while also being careful to preserve the value of state fisheries.

For commercial fisheries, WDFW describes various selective fishing techniques on our website. In general, we indicate that selective fishing is the ability of a fishing operation to avoid non-target species or stocks, or when encountered, to release those animals alive and unharmed. Essentially, selective fishing methods allows resource managers to implement fisheries that target species which are forecasted to have harvestable surpluses while protecting less abundant species or species of concern that share the same space and time – mixed species fisheries.

Modeling escapement and management objectives for mixed species fisheries using selective gear and techniques requires an estimate of the mortality associated with catch and release. In estimating long term release mortality in Willapa Bay, WDFW uses a mortality rate derived from a study done in the Columbia River on spring Chinook salmon (Vander Haegen et al., 2002). Vander Haegen reports long term release mortality for two different gillnet mesh sizes as 47.5% and 42.7% (mean = 45.1%) for 8.0" and 5.5" gillnets, respectively. Region 6 staff, in our terminal area fisheries planning model, uses the mean long term mortality rate of 45%.

Some commenters expressed concern that the continued use of the Columbia River study is not warranted because the water in Willapa Bay is warmer than the Columbia River and can be expected to produce higher mortality when implementing selective fishing techniques. WDFW considered data collected by Ashbrook et al. (2007) that showed no difference in immediate survival based on water temperatures in Willapa Bay. WDFW acknowledges temperatures experienced during the study in Willapa Bay were higher than those reported by Vander Haegen from the Columbia River. While it is common knowledge that cooler water tends to be less stressful to Pacific salmon, the relationship between long term survival rates and temperature as it pertains to non-retention in a commercial gillnet fishery is unknown. Although temperature may play a part in long term mortality rates, data from Ashbrook et al. (2007) suggests that physiological transformation, change from saltwater to freshwater environments, may be the major contributor to long term mortality rates. Taking this into consideration, WDFW concluded that long term mortality rates reported in Vander Haegen et al. (2004) would be applicable to gillnet activities in Willapa Bay.

The relationship between physiological transformation and mortality resulting from capture and handling in commercial fisheries does warrant additional study. Scientific investigation on this subject may also be insightful in regard to differences in long-term survival as they relate to different life-history strategies such as spring versus fall returning Chinook salmon. Of keen

interest; how well correlated are long-term survival rates between a spring Chinook which must spend weeks to months in freshwater prior to spawning versus a fall Chinook that will spawn a short time after entering freshwater. Absent empirical data it would be merely speculative for WDFW to suggest that fall Chinook derive a benefit from this life-history strategy in the context of selective fisheries.

Commentators expressed an interest in changing the long term release mortality figure, but provided no substitute mortality rate. In particular, a study evaluating selective fishing that was conducted in Willapa River by Ashbrook et al. (2003) was put forth as a basis for utilizing a mortality rate different than 45%, however like the commentator this study provided no suggested alternatives.

The Ashbrook study reports important information that continues to develop about the use of selective gear and techniques. In particular, it provides important information because it took the selective gear techniques studied in the Columbia River and began work to examine whether similar or different results would be obtained in Willapa Bay for selective fishing on a similar species of salmon.

The limitation of the Ashbrook study is that it was unable to gather enough data to provide more than estimates of immediate mortality. Due to the lack of a sufficient sample size and tag recovery probabilities, the Ashbrook study was unable to determine any long term survival rates. Immediate survival rates for fall Chinook were reported as 85%. Interestingly, if WDFW were to use the 85% immediate survival figure in its modeling of the proposed commercial fishery, this would reduce the projected commercial fishery mortalities and would allow for a *longer* commercial fishery than what has been proposed.

Immediate survival is informative, however fisheries managers need to have an understanding of long term survival in order to evaluate the implications of a gillnet fishery. Further evidence of the need to use the long term release mortality figure expressed in the Vander Haegen (2002) Columbia River study is stated by Ashbrook:

“Because of the lower power, the results of the long term survival analysis for the fall Chinook of the Willapa Bay study should be interpreted with caution, particularly when compared with those from the more powerful Columbia River study.”

After careful review of each study and other environmental conditions present in Willapa Bay, WDFW staff considers the Columbia River study to be more robust in quantifying long term mortality rates than the Ashbrook et al. study. Accordingly, the Willapa study is important information, but does not provide a basis to deviate from the decision to utilize the mortality derived from the Columbia study.

In addition to modeling of catch mortalities, fishing techniques play a role in the attainment of conservation objectives through selective fisheries. Avoidance of non-target species or stocks and live release of those non-target species or stocks incidentally encountered are two important components of a selective fishery. Selective fishing is defined as the ability to avoid non-targeted species or if encountered to release them alive and unharmed. Knowing when and where a fisher would encounter which species is the first step in avoiding bycatch. Time, area and gear restrictions are the major methods of practicing avoidance.

Commenters to the proposed rule, opening the Willapa Bay commercial fishery, voiced concerns that avoidance objectives are not being met.

For the 2013 season, WDFW has proposed a commercial gillnet season that targets hatchery Chinook salmon during their peak run timing. The early-August portion of this fishery is commonly referred to as the “dip in fishery” – this is a reference to the fact that Chinook from other areas of origin are present but are not relevant to conservation objectives for Naselle natural Chinook or to Willapa Bay Chinook escapement and viability goals as a whole. Genetic samples taken from this fishery have shown that 42% of the total abundance of Chinook salmon encountered during this early August time-frame (prior to August 15 annually) are made up of stocks originating from Willapa Bay (Kassler et. al. 2004). Data taken by onboard observers shows 52.6% and 68.7% of all Chinook salmon encountered were of hatchery origin for August and September, respectively (WDFW, unpub. data). Data from previous years are unavailable because 100% mass marking of hatchery Chinook was initiated in the Willapa Bay with brood year 2006 with full returns beginning in 2011. Natural origin Chinook salmon relevant to Willapa escapement objectives have a later run timing in Willapa Bay than their hatchery counterparts (WDFW, unpub. data). These two considerations are important because they show that the commercial fishery has been designed to occur when run composition and run timing will tend to reduce impacts to species of concern for Willapa Bay. This is consistent with the desire to avoid targeting of species of concern.

In addition, the proposed rule made changes to the allowed gear in order to minimize impacts to non-target species. From September 15 through November 20, WDFW has decreased the allowable mesh size, the number of meshes in depth and/or the hang ratio for net used in the commercial fishery; all these factors are deterministic in defining the depth at which a commercial gillnet fishes and the species targeted. For example, Chinook salmon have been shown to migrate lower in the water column than Coho salmon. The gear allowed under the proposed rule uses this information to allow gear that avoids Chinook when targeting coho. The decrease in the number of meshes and mesh size will limit the depth at which gillnets will be fishing thereby targeting Coho salmon while reducing the likelihood of Chinook salmon encounters. A smaller mesh size can also be effective in terms of limiting impacts to species of concern by tangling the target and non-target species by the teeth or mouth projections and avoiding any gill damage of the non-target species, which are extremely delicate.

Soak time is another issue addressed by commenters. Soak time refers to the time a net is allowed to be deployed and interacting with fish. WAC 220-40-021 and -027 defines soak times as the time elapsed from when the first of the gillnet web is deployed into the water until the gillnet web is fully retrieved from the water.

Commenters observed that the definition of soak time and the allowed amount of soak time is different than what was used in the Ashbrook et al. (2007) study where soak time was defined as the time when the first cork was laid out until they began to retrieve the net. The proposed commercial gillnet season for Willapa Bay limits soak times to 45 minutes. Commenters have also objected to the 45 minute soak time on the basis that WDFW’s website suggests soak times should be limited to 20 minutes in order to decrease mortality rates associated with a gillnet fishery.

Limitations on the Ashbrook study have already been discussed above. While WDFW staff agrees that shorter soak times would lead to lower mortality rates for released fish, the magnitude of the decrease in mortality rate is less clear and is not answered by the Ashbrook study. As discussed above, WDFW believes that it is appropriate to use a mortality rate of 45% based on the study done by Vander Haegen et al. (2002). The mortality rate derived from this study is based on a mean soak of 44 minutes. To reiterate the soak time requirement in Willapa Bay Commercial fisheries is not to exceed 45 minutes from the time deployment of the net begins until it is fully retrieved from the water. As a result the mean soak time for nets deployed in Willapa Bay is less than 45 minutes. Considering this and the result from both the Ashbrook and Vander Haegen studies, WDFW decided not to require a shorter soak time.

D. *Some commenters felt that WDFW is not dealing with multiple encounters and recaptures of non-targeted species.*

Multiple encounters can contribute to the uncertainty in the mortality rate of a fishery, both recreational and commercial. Multiple encounters is defined as the recapture of a fish that has been previously captured and released. WDFW's model does not assume multiple encounters. The model accounts for *total* encounters, which by its nature includes fish that are encountered one or more times; in that manner, multiple encounters of individual fish are accounted for. Multiple encounters are included in the 45% mortality rate assessed in the commercial gillnet fishery since each individual encounter is considered to have a 45% likelihood of mortality.

WDFW recognizes that fish caught multiple times may be subject to a mortality rate higher than 45%. The studies done by Vander Haegan et al. (2004) and Ashbrook et al. (2007) are important pieces of information, but each has limitations. Both studies reflect fishing effort that is not fully representative of what actually occurs in the Willapa Bay commercial gillnet fishery. The Ashbrook et al. (2007) study in Willapa Bay was able to calculate a multiple encounter rate of 4.4%. However, this element, when studied in a test fishery, lacks direct comparability with a full fleet gillnet fishery and thus leaves substantial questions about the ability to estimate a multiple encounter rate for the Willapa Bay commercial fishery. Furthermore, and most significantly, the Ashbrook study was unable to develop an estimated long-term survival rate of released fish. Without that necessary information, WDFW determined that there was not a sufficient basis to compute a revised mortality number. There remains a gap in terms of the primary literature as it pertains to mortality rates for fish that are encountered multiple times.

Understanding that there is a lack of applicable information pertaining to Willapa Bay, WDFW continues to look for and pursues grant moneys for research needed to fill those gaps. WDFW has evaluated study designs and infrastructure of Willapa Bay looking for feasible research design. WDFW initiated a mark-recapture study in 2012 to evaluation to integrity of a temporary weir on the Naselle River. This study will be expanded in 2013. WDFW will continue to evaluate this study as it may have implications that may assist with data gap issues.

While modeling impacts is an important conservation tool, it is an imprecise science. Attainment of objectives helps managers ascertain whether changes to modeling assumptions may be needed. As discussed in earlier sections, the conservation strategy for Willapa Bay is new and evolving with a focus on more than escapement. In order to assess impacts of multiple

encounters and fishery management objectives, WDFW will continue to evaluate pre-season forecast abundance and post-season natural-origin Chinook stock returns. One of the prime fishery management objectives is to limit impacts on natural-origin Naselle Chinook to 30 percent or less. This, with proper management of hatchery operations, genetic flow, will provide for long term viability of natural-origin Chinook (HGMP). Until 2012, evaluation of returning natural-origin Chinook to Willapa Bay was difficult due to the low mark rates of hatchery-origin Chinook. Implementation of full marking of all hatchery-reared Chinook released into Willapa Bay tributaries beginning with brood year 2006 provided the means to evaluate pre-season forecast abundance with post season performance of natural-origin Chinook. Monitoring fisheries for encounters of natural-origin Chinook and identifying natural and hatchery origin fish on spawning grounds will provide data needed to determine if fishery management plans are achieving the goal of minimizing impact to 30 percent of less on Naselle natural Chinook. The ability to evaluate performance of natural-origin Chinook has only been available with full returns of 100% mass marked Chinook for only one year, 2012. However, with the majority of returning Chinook being mass marked beginning in 2010, WDFW had assessed the success of these management actions in terms of the pre-season predicted runsize in comparison with the post-season estimate of escapement. An artifact of the Willapa Bay Planning model that complements this analysis slightly, is the fact that both the Willapa Chinook Forecast and the fishery planning model combines Naselle and Bear river escapement data. The result of this analysis is presented in Table 9 below. Continued evaluation is needed for ongoing assessment of the effectiveness of conservation and fishery management actions as well as hatchery reform activities.

Table 9. Comparison of Pre-season Predicted Spawner Escapement of Natural Origin Chinook in Naselle and Bear rivers, with Estimated Post-season.

Run Year	Pre-season	Post-season
2010	654	1,668
2011	900	1,460
2012	1,186	1,058
2013	1,321	na

The vast majority of this natural-origin escapement is occurring in the Naselle River itself (2010, 1,648; 2011, 1,433; and 2012, 1,043). In addition to the natural-origin component of fish spawning in the wild, hatchery-origin fish account for a significant portion of the total spawners, which in the aggregate far exceed the minimum spawner goal for the Naselle River of 1,547 (Table 10). Although the multiple capture mortality rate may be greater than 45%, in combination with other factors, the total mortality resulting from capture, handling, and release of natural-origin Chinook does not appear to be resulting in higher impacts than are accounted for in WDFW models. This information helps verify the conservation strategy that has been adopted.

Table 10. Total Natural Spawner in the Naselle River during Run Years 2010 - 2012.

Run year	Natural-origin	Hatchery-origin	Total spawner escapement
2010	1,648	9,791	11,439

2011	1,435	14,533	15,968
2012	1,043	14,131	15,174

E. Commenters expressed concern that the use of the recovery boxes is at the discretion of individual commercial gillnetters.

The use of recovery boxes for a small percentage of fish found to be bleeding or lethargic is a required element of the commercial gill net fishery. Recovery boxes for these fish increase their chances of survival upon subsequent release. It is only required for the roughly 15% of non-target species taken that exhibit bleeding or lethargy because recovery boxes should not be used for the roughly 85% of non-target species that are not bleeding or lethargic fish. Those fish would actually be harmed by additional handling.

During studies conducted to evaluate selective fishing techniques, a holding tank was used to determine the condition of non-targeted species prior to being placed in the recovery box, if necessary. The use of a holding tank in the commercial gillnet fishery in Willapa Bay is not required because it is impractical; the commercial vessels are not large enough to accommodate such a large tank. These vessels tend to be smaller than those contracted to conduct this research. Furthermore, holding tanks are constructed differently from recovery boxes and do not have continuous water flow, which maintains the oxygenated water. The size of these boxes and volume of water they contain would likely pose a significant safety to the vessel because of the space required and the weight of the tank. Ultimately, what produces the greatest benefit for the 15% of non-target species that are bleeding or lethargic is effective use of the recovery box. Effective implementation and enforcement of this requirement is discussed in response to other comments below.

Some commenters expressed concern that the proposed rule is not highly prescriptive about the time when a recovery box must be utilized and that there are incentives for commercial fishers to ignore the requirement. WDFW agrees that proper use of recovery boxes must occur in order to be an effective means for improving survival of fish destined for release. Some adjustments can be made to help this situation, but the agency has concluded that education and monitoring rather than adding more regulatory requirements or reducing the commercial fishing effort is the appropriate response. Increased enforcement of the fishery may only serve to reduce enforcement and compliance in other areas. WDFW enforcement officers conduct emphasis patrols and randomly monitor fisheries. This pattern of unpredictable monitoring generates a greater tendency for fishers to follow the rules.

To assess the value of requiring all unmarked Chinook to be placed in a recovery box prior to release, WDFW will revise data sheets used by observers to record the *condition* of each fish being released. If it is determined that recovery boxes are not being used effectively and that condition of fish is not being assessed appropriately WDFW has the authority to close a fishery that is determined to be unruly.

In summary, WDFW agrees that the use of the recovery boxes is important when implementing selective fishing gear and techniques that require the release of natural, unmarked Chinook. The

proposed commercial fishery in Willapa Bay targets the harvest of coho and hatchery Chinook and requires that only chum and natural, unmarked Chinook be released. It is worth noting that natural Chinook encountered in selective fisheries in Willapa Bay during 2011 and 2012 accounted for only 14% of the total encounters for both Chinook and coho salmon. In other words, the number of natural Chinook encountered compared to coho or hatchery Chinook is 4:1 and 3:1 respectively, based on on-board observer data (see Figure 2. Proportion of Chinook and coho encounters in Willapa Bay from on-board observation during 2011 and 2012 combined.). Requiring the commercial fisher to stop fishing to treat each fish individually as they come on board prior to placing into the recovery box would jeopardize other fish still in the net. It would hinder the commercial fisher’s ability to quickly bring in the net and release the fish or place them in the recovery box without delay. Considering the low encounter rate for non-target species and the small percentage of these fish that actually need recovery box treatment, WDFW does not believe that additional recovery treatment prescriptions are needed at this time. Focus should be placed on continuing to build effective implementation of the current treatment requirements. To that end, WDFW will continue monitoring the use of recovery boxes and will consider in-season changes or prospective changes to commercial fisheries as experience with these relatively new techniques grows.

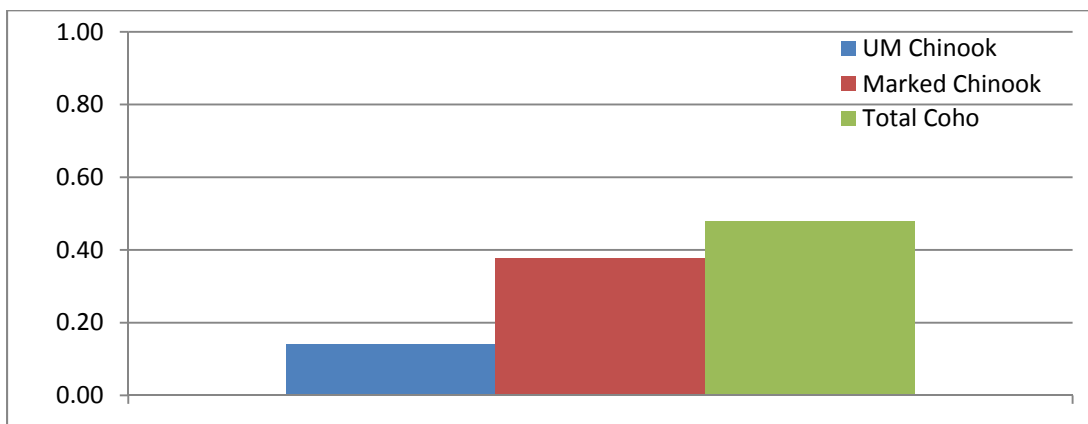


Figure 2. Proportion of Chinook and coho encounters in Willapa Bay from on-board observation during 2011 and 2012 combined.

F. Some commenters expressed a belief that the Advisory Group process is not sufficiently public and the North of Falcon process is not fully transparent

WDFW respectfully disagrees with this assessment. The purpose and function of Advisory Groups is to advise WDFW regarding current and emerging issues in fish and wildlife conservation and management. Members appointed to these groups are selected because they represent the diversity of the stakeholder interest on the subject for which the group is asked to advise WDFW with near equal representation by both commercial and recreational harvesting interests. Advisors also function as a conduit for WDFW to disseminate information to other interested stakeholders. It is one part of a multi-part process for engaging the public on the development of fishing seasons and rules.

North of Falcon public meetings are an additional element of the rule development process, they are an opportunity for discussion, analysis and negotiation among all interested parties.

Participants investigate the biological consequences of options for the outside (ocean) and inside (Puget Sound, coastal, and Columbia River) fisheries and try to achieve a consensus on an overall management plan for the upcoming fishing year. The process is supported by technical analyses provided by professional biologists from various state, tribal and federal management agencies. NOF public meetings are noticed to the public on WDFW's website, typically in January, this information is accompanied by a news release. In parallel with the NOF public meetings WDFW staff initiate the Code Revision Process whereby the season structure is ultimately finalized and adopted. There are times when parts of the NOF process are not conducted in public forums because co-managers have expressed a desire that time be set aside for face to face discussions. The agency has similarly met with members of the public, including the commenters, outside of public meetings. This does not diminish the transparency of the overall process.

The full extent of the rule-making process was discussed in Section I. WDFW believes that this entire process provided a meaningful series of related opportunities for members of the public to express views on the development of the proposed commercial fishing season.

G. A number of commenters expressed concern that there is a lack of enforcement and biological staff utilized by WDFW to enforce and monitor fisheries.

WDFW enforcement officers conduct emphasis patrols and randomly monitor fisheries. This pattern of unpredictable monitoring generates a greater tendency for fishers to follow the rules. Not knowing when officers will be patrolling or where they are monitoring from creates doubt in the ability to successfully evade regulations. WDFW does acknowledge that there are limitations to the amount of enforcement that can be directed to monitoring commercial fisheries in the field. Other methods of enforcement include monitoring fish buyers and fish ticket databases. These are less time consuming and provide a quick assessment of commercial landings. All fish bought and sold must have a fish ticket documenting its legal acquisition.

Biological sampling by WDFW staff occurs each management period. One to three boats are boarded at random by WDFW staff to collect biological data for the duration of the fishing outing. Biological data collected includes species, mark status, CWT, evaluation of fish condition, gender, and recovery box use. Other information collected includes net deployment duration, weather condition, and harvest. WDFW would like to employ on-board monitoring each day the commercial fishery is open, as we would like to do during sport fisheries. The more data collected, the better fisheries management can be evaluated. However, state budgets have been constricted in the recent past and providing daily on-board monitoring is not feasible. Time management of on-board staffing is evaluated to collect as much data as possible within the finance constraints faced by the department.

H. Comments were received alleging that WDFW is not following its mandate to enhance recreational fishing opportunity.

WDFW, through the North of Falcon process, plans and schedules both recreational and commercial fisheries. Suggestions from the public for all recreational and commercial fisheries in Willapa Bay are gathered throughout the process. WDFW has received comments claiming

that the recreational fishery is not being provided adequate fishing opportunity. Their belief is that most surplus fish are being harvested by the commercial fleet.

A comparison between the 1990-2002 and 2003-2012 average distribution of Willapa Bay Chinook shows that escapement nearly doubled (identifies as Esc in Figure 3). That is a positive outcome, though WDFW continues to work on increasing the escapement of natural origin stocks and reducing hatchery surplus. The harvestable surplus that returns to the hatcheries increased slightly. Meanwhile commercial harvest decreased by nearly 50% over the same timeframe while recreational harvest has increased by just over 42%. Accordingly, WDFW believes that progress on conservation continues and that there has been increased focus on providing for recreational fishing.

In regard to the relative proportions of Chinook returning to the hatchery rack remaining largely constant across these two timeframes, the dramatic increase in spawner escapement appears our conservation efforts are beginning to pay dividends. It is worth noting that in regard to the hatchery surplus these fish are equally available for harvest in both recreational and commercial fisheries.

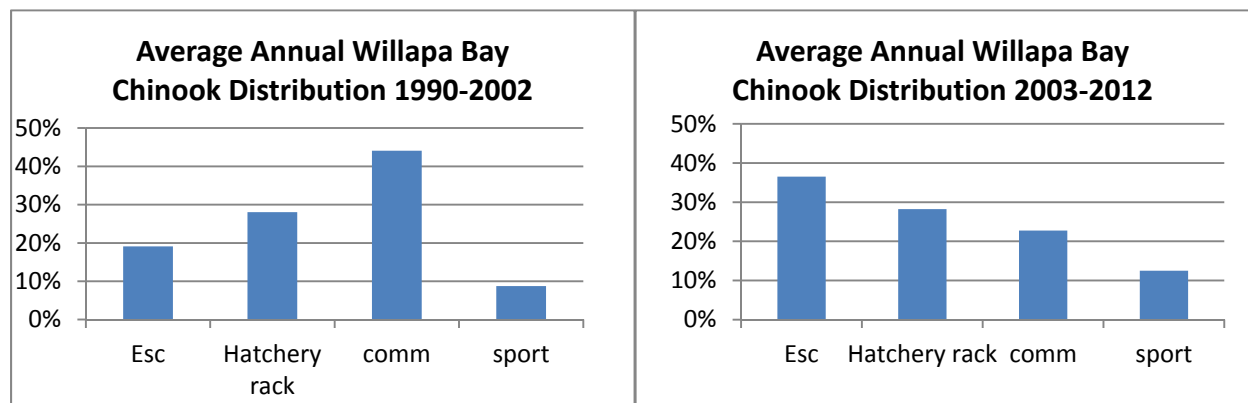


Figure 3. Comparison of the Proportional Distribution of Willapa Bay Chinook in Spawner Escapement, Hatchery Rack, Commercial Gillnet, and Sport Fisheries for 1990-2002 versus 2003-2012.

To facilitate recreational harvest of hatchery surplus, WDFW has increased retention limits throughout Willapa Bay and in certain tributaries where hatchery surpluses exist. For example, the daily bag limits for Marine Area 2.1 and the major rivers in Willapa Bay (North, Smith, Willapa, Willapa South Fork, Nemah North Fork, and Naselle rivers) all have three adults in the six daily limit for the 2013 salmon season. The Marine Area 2.1 and a section of the Naselle River also have a Two-Pole Endorsement allowed. Area 2T closed from August 15th through September 15, 2013 to provide recreational opportunity without gillnet interference. Area 2U is closed for three 12-hour periods on September 22, 29, and October 6, 2013 to allow fish to pass upstream and provide opportunity to those upriver recreational fishers. We believe these actions will further enhance benefits to the quality of the recreational fishery as demonstrated in Figure 4 below. This graphic represents the increasing trend in the annual harvest rate and total catch of Willapa Bay Chinook that is occurring in recreational fisheries in MA 2.1, and the associated tributaries.

The spillover from effect of quality recreational fisheries is the economic impacts that these fisheries create. Size and quality of the fishery can drive the value to a local economy. In working with advisors and stakeholders through the NOF process WDFW works to strike a balance in commercial fisheries wherein the size and quality of the recreational fishery further augment the overall value of both fisheries in combination. The net free zone in Area 2T discussed above is a key component in ensuring the quality of the Marine Area 2.1 fishery. As previously noted this area is a priority for recreational fisheries during the peak of the Chinook fishery (mid-August to mid-September). In doing this the economic benefits from a recreational fishery are exploited through lodging and food services among other services to benefit the local economy. Similarly, by providing an extended season length for commercial fisheries with short opening across a broad timeframe aids in further maximizing economic benefits to the local economy in sectors like the local processors whose employees are local residents.

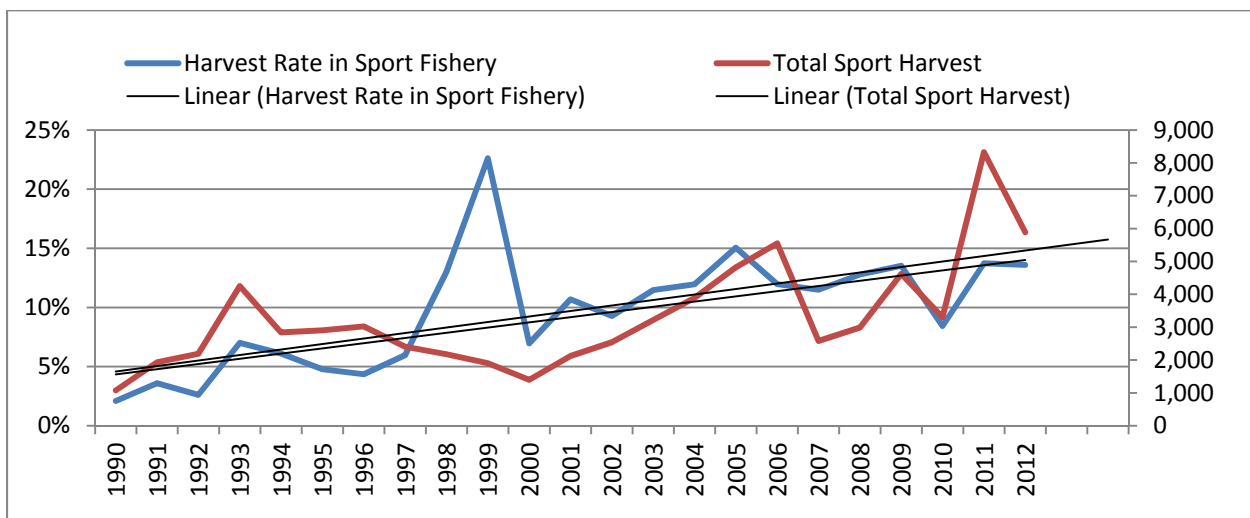


Figure 4. Total Sport Harvest of Willapa Bay Chinook in MA 2.1 and Willapa Bay tributaries, 1990-2012.

In summary, WDFW continues to make progress on conservation objectives and has simultaneously provided an increase in recreational opportunity through fishing regulations and bag limits for 2013. Figure 3 shows that after escapement and broodstocking needs are met, there is an excess of harvestable fish available to catch by the recreational fishery.

I. Comment: A claim was made that the proposed rule was not developed in conformity with the letter or spirit of the Administrative Procedures Act (APA)

One commenter claimed that the rulemaking process used to adopt the proposed rule violates the Administrative Procedures Act (APA) and was not properly developed in a “legislative process.” The commenter took issue with the Advisory Group process and the North of Falcon (NOF) process that is incorporated into the rule-making process.

No statutory reference in the APA is made with regard to the claims about WDFW's failure to use a "legislative process." The commenter may be referring to the special rule-making requirements of RCW 34.05.328 for "significant legislative rules." If so, the agency notes that those requirements apply only to rules that implement provisions of Chapter 77.55 RCW – the chapter requiring Hydraulic Permit Approvals (HPAs) for construction projects in public waters.

In any event, WDFW respectfully disagrees with the commenter regarding compliance with the APA's rule-making provisions. Other portions of this CES describe the Advisory Group and NOF processes and how they add to the normal public comment process and thus go beyond what is required under the APA. In all respects, the agency fully complies with the rule-making provisions of the APA. The agency takes its rule-making duties very seriously and employs multiple forums to seek and obtain public comment. A rule-making record has been developed that includes all written and verbal public comments made with regard to the proposed rules, together with any reference materials submitted by interested parties. The agency fully considered these materials prior to reaching a final decision on the proposed rule. Indeed, the agency continued the comment deadline to provide individual commenters extra time to provide information to the agency, including in response to public disclosure requests.

As is often the case, there is room for honest and open debate. Not every point of view can be accommodated and tough choices have to be made that focus first on conservation and then seek to accommodate a balance of statewide interests. The existence of opposing views does not mean those views were not considered even if the agency ultimately disagreed and decided it is in the best interests of the state to pursue an alternate path.

One commenter also asserted that the agency's timing of the rule-making process was such that the rule could not take effect on August 12 as proposed and that it would violate either the text or spirit of the APA to open the proposed fishery on that date using emergency rules. The agency agrees that extended comment periods have produced a timeline that precluded full consideration of comments and the issuance of a rule-making order in mid-July so that the proposed rule would become effective using the normal 31 day time frame between filing of the rule order and its effective date as envisioned by RCW 34.05.380. Nevertheless, harvestable salmon will appear and be ready for harvest in mid-August. That is beyond the agency's control and the agency has determined that significant community economic opportunities – both commercial and recreational, will be lost or significantly diminished if commercial fishing is delayed. Substantial direct and indirect community economic benefits will be lost if the August fishery is lost. If that fishing opportunity is lost, it may be partially recovered by modifying the rule to provide additional fishing opportunity in early September, without filing additional rule-making notices, using the provisions of RCW 34.05.340(3). Alternatively, an emergency rule might be used to provide added commercial fishing in September.

However, because the loss of community economic benefits would only be partially offset by providing additional commercial fishing in early September, and because that would tend to impact recreational fishing opportunity planned for that period, the agency has decided to utilize the provisions of RCW 34.05.380(3)(c) which allow for an earlier effective date based upon findings that such a date is needed to avoid an imminent peril of lost public welfare – the economic benefit of the planned fishery. The agency does not plan to use an emergency rule bypassing normal rule-making requirements because a full rule-making process was utilized to develop the rules and an earlier effective date is authorized in the circumstances noted.

