

## **Concise Explanatory Statement**

### **Puget Sound Commercial Salmon Regulations for 2014**

This Concise Explanatory Statement (CES) describes the Washington Department of Fish and Wildlife's (WDFW) reasons for adopting the 2014 Puget Sound commercial salmon fishing rules and responds to public comments received on the proposed rules. The adopted rules are set forth in Washington Administrative Code (WAC) 220-47-307, -311, -401, -411, and -428.

#### **Rule Development Process**

The 2014 annual public process for defining salmon fishery rules, known as North of Falcon, began on December 19, 2013 with a meeting with the industry to review the 2013 Puget Sound commercial salmon fisheries. This meeting was held at the Mill Creek WDFW offices to accommodate commercial industry representatives from various areas of Puget Sound. WDFW presented a review of the 2013 Puget Sound commercial salmon fisheries and discussed outcomes of the season, and also began discussions on the upcoming 2014 season.

The next North of Falcon meeting, presenting the 2014 run forecasts, was held in the Natural Resources Building in Olympia on March 3, 2014. WDFW presented and discussed the 2014 preseason forecasts of salmon abundance with interested stakeholders. Implications of the forecasts and 2014 season planning were discussed in a Puget Sound commercial break-out session during this meeting. Additional public meetings were held March 19<sup>th</sup>, March 26<sup>th</sup>, and April 1<sup>st</sup>. During these meetings WDFW gathered input on structuring fishing seasons, possible rule changes and provided the public with information on the status of the 2014 planning process. Formal rule making hearings were held on April 4, 2014 and May 29, 2014 to provide an opportunity for comments on the proposed rules as published in the Washington State Register. No verbal comments or testimony was presented at either hearing. In addition to input during the public meetings, WDFW received comments by letter and electronic mail during the North of Falcon process.

WDFW published the proposed 2014 commercial salmon season regulations as Washington State Register (WSR) 14-05-102 on March 5, 2014. This filing included changes to WAC 220-47-307, -311, -401, -411 and -428. Modifications to the proposed rules were made as a result of the public process and negotiations with the Northwest Treaty Tribes (co-managers). A supplemental filing, WSR 14-09-108, was published in the WSR on May 7, 2014, to cover the modifications made to the rules after the original filing. The supplemental filing included changes to WAC 220-47-307, -311, and -411. An attachment explaining the changes made from WSR 14-05-102 was included in the supplemental filing of the proposed rule changes. Information regarding both filings of the proposed rule changes was mailed out to Puget Sound commercial salmon license holders, available at meetings and posted on WDFW's website.

During the 2014 North of Falcon season planning process, the tribal co-managers and WDFW conducted technical meetings and policy level discussions to agree on conservation objectives, run-size forecasts, and estimates of the allowable tribal and non-tribal catch shares for the various salmon runs considered in defining fishing levels. WDFW and the tribes also reached agreement on coordinated fishing schedules for tribal- and state-managed Puget Sound salmon fisheries. These schedules provide days of the week that are exclusively reserved for treaty fishing in areas where non-treaty fishing is also conducted. The Puget Sound commercial salmon fishing seasons proposed for adoption by WDFW in 2014 are products of both the government-to-government, tribal-state negotiation component and the open public process component of the annual North of Falcon process.

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. Additional written comments were submitted to the WDFW rules coordinator in response to the CR-102 filings published on March 5 and May 7, 2014 respectively. Responses to those comments are summarized in the “Response to Comments Received” section of this document.

### **Rationale for Adoption of Rules**

WDFW considered all the facts and circumstances surrounding setting the 2014 commercial salmon season in Puget Sound. The agency carefully reviewed all input from industry representatives and the general public regarding preferred fishing rules during North of Falcon public meetings and the state’s rule making process. WDFW considered and relied upon the best technical and scientific information available to tribal and state fishery management experts, including pre-season forecasts of the abundance of salmon stocks and data that will be used during the season to update forecasts. Important characteristics of the Puget Sound commercial salmon fishery were considered, including the total number of licensed vessels potentially participating in each fishery; the number of vessels that have actually participated in each fishery in recent years; the outcomes in terms of target and non-target species catch in recent years; the catch likely to result from the proposed rules; and the economic value of these commercial fisheries. The department also considered fishing schedules of tribal fisheries that must be coordinated with the state’s commercial fishing schedules as part of the co-management process developed under sub-proceedings of United States v. Washington.

Regulations for the 2014 Puget Sound commercial salmon fisheries were considered with respect to the following management objectives, listed in order of priority. These objectives were shared with industry representatives 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 primary stocks meet escapement goals and/or management objectives

- 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 POL-C3608. This includes using management strategies to limit seabird mortalities consistent with the federal Migratory Bird Treaty Act
  - c) Monitor fisheries to ensure a & b are met
- 2) Harvest the non-treaty share of salmon
  - 3) 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)

WDFW concludes that the adopted 2014 Puget Sound commercial fishing regulations are consistent with these management objectives based on the following rationale:

Objective 1a: Ensure primary stocks meet escapement goals and/or management objectives

The adopted rules and regulations of these commercial fisheries are constructed to ensure achievement of conservation objectives defined for each target species, stock, or management unit. The adopted rules define schedules with open fishing periods only for those fisheries that are directed at salmon stocks with harvestable abundance; all fisheries are monitored to ensure that catches do not exceed the number allowed for each species, stock, or management unit at which the fishery is directed. WDFW relied on pre-season forecasts of abundance to construct the fishing schedules. The agency will use in-season information, where available, to update preseason forecasts of stock abundance and to revise estimates of the allowable catches for each fishery.

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*, instructed the department to manage fisheries to minimize mortalities on non-target species. In structuring rules for the 2014 commercial salmon seasons, WDFW considered impacts of fisheries on non-target species; including Endangered Species Act (ESA) listed Puget Sound Chinook, Hood Canal summer chum salmon, steelhead, and rockfish, as well as other fish and wildlife species of concern. The adopted regulations are structured to 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, often relying on joint tribal-state technical recommendations.

Since bycatch mortalities vary by fishing method, the objective of minimizing bycatch requires WDFW to apply different rules to the different gear types. For example, salmon bycatch mortality associated with operation of reef net gear (used only in the Salmon Management and Catch Reporting Area 7/7A fisheries) is assumed by state and tribal fishery managers to be zero, because minimal contact with non-target salmon occurs with this gear during fishing operations and all prohibited bycatch is quickly released. For purse seine gear, state and tribal managers reviewed results of scientific studies on salmon bycatch mortality and concluded that the majority of coho and Chinook salmon encountered by this gear will survive being sorted and returned to the water. Based on this scientific data, bycatch mortality of Chinook and coho salmon in Puget Sound commercial purse seine fisheries targeting other salmon species can be minimized by requiring that these non-target species be released.

Fewer scientific studies have been conducted on mortality rates for coho and Chinook salmon encountered by gillnet gear. Given this lack of directly applicable scientific studies, WDFW must address the bycatch minimization objective for gillnet gear differently than the approach used for purse seine gear. Relying on recommendations of the Joint Chinook Technical Committee of the Pacific Salmon Commission (Report TCCHINOOK (97)-1. PSC, 1997) that “CNR (Chinook non-retention) gill net fisheries are unlikely to be implemented due to the high expected mortality rate of the fish released,” WDFW concludes that requiring release of Chinook and coho salmon in Puget Sound gillnet fisheries generally will not result in the minimization of bycatch mortality. In the majority of Puget Sound gillnet fisheries WDFW does not require release of Chinook or coho. Fishers are prohibited from discarding salmon that may be legally retained, except for fish that are made unmarketable due to pinniped predation. Because all retained salmon are required to be reported on commercial fish tickets, WDFW may assume that bycatch of these species can be estimated using fish tickets. In recent years, WDFW has increased on-board monitoring of gillnet vessels, with the objective of comparing levels of bycatch estimated from direct observation of gillnet bycatch of Chinook and coho to levels estimated by commercial fish tickets.

There are some unique circumstances where WDFW has concluded that the bycatch minimization objective will be achieved by requiring release from gillnets. Such circumstances include when regulations restrict the number of licenses participating such that all participants can be monitored, when regulations limit the size of fishing gear and length of net soak times (e.g., in the extreme terminal Area 12A coho fishery with skiff gillnets), and when regulations require the use of recovery boxes.

The mortality rates applied to Chinook salmon encountered and released in Puget Sound purse seine fisheries, and the drop-out rates applied to gillnet fisheries, based on joint-tribal-state technical recommendations, are documented in the *2010 Comprehensive Management Plan for Puget Sound Chinook: Harvest Management Component*. This plan was approved by the

National Marine Fisheries Service, providing ESA coverage for Puget Sound Fisheries under Limit 6 of the ESA 4(d) rule.

Conservation concerns over the non-salmon species encountered during Puget Sound commercial salmon fisheries are increasing. Fish species of concern in Puget Sound include ESA-listed Chinook salmon and steelhead, as well as ESA-listed canary, bocaccio and yelloweye rockfish. Other wildlife species of concern in Puget Sound include federal ESA-listed killer whales, Stellar sea lions and marbled murrelets, along with common murre, a state Species of Concern “candidate” species. For these species, data collected from recent purse seine seasons indicates a low encounter rate, but (as discussed below) there is minimal gillnet monitoring data from recent seasons. Extrapolation of purse seine data to the gillnet fishery in general may not be valid given known differences between the gear types and their impacts on various species.

Seabird bycatch mortalities in gillnet fisheries are a special concern; out of all the types of nets used in Puget Sound commercial salmon fisheries, gillnets are believed to pose the greatest risk of entangling and drowning seabirds (*USFWS opinion on the effects of the proposed action on the threatened marbled murrelet*. 1994). A later USFWS document (*USFWS Biological Opinion on proposed all-citizen Puget Sound Area commercial and recreational salmon fisheries*, 2001) concluded that mortality caused by the fisheries appeared to be having a “relatively insignificant adverse effect” on the marbled murrelet population, but went on to say that chronic mortality from gillnet fisheries would have an increasingly significant effect if the murrelet population continues to decline. This analysis was based on gillnet effort during the years 1996-2000.

Since then, gillnet effort has increased dramatically in the Area 10/11 and 12/12B/12C chum fisheries, and decreased in Area 7/7A fisheries. The decrease in gillnet landings in Area 7/7A is in part due to the low abundances of Fraser River sockeye available for harvest in recent years, excluding the large return in 2010. Without the decrease in effort in Area 7/7A gillnet fisheries, the increase of incidental take of marbled murrelets from the chum fisheries might have exceeded the limits set forth in the Biological Opinion. The 2014 forecast for Fraser River sockeye is one of the largest in recent history and is anticipated to be near the run size seen in 2010 which will likely result in an increase of gillnet landings in Area 7/7A. Should sockeye abundances and gillnet effort in Area 7/7A increase, and effort in chum fisheries in Areas 10/11 and 12/12B remain high, Puget Sound commercial fisheries could exceed the limits from the Biological Opinion.

The adopted regulations for the 2014 Puget Sound commercial salmon seasons include restrictions specific to purse seine and gillnet gears that are expected to reduce seabird mortalities. These restrictions are identical to those implemented since the mid-1990s on the basis of recommendations of scientists conducting seabird bycatch studies as well as input from both gillnet and purse seine fishers. In addition, WDFW has concluded that continued closure of

the Port Madison area is an appropriate and prudent measure to minimize bycatch of these species. WDFW will continue this closure with the adopted regulations for 2014.

Marine mammal injuries and mortalities in Puget Sound net fisheries are another concern. 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. Puget Sound purse seine fisheries 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. Puget Sound gillnet fisheries are designated as a Category II fishery “with occasional serious injuries or mortalities” to marine mammals. Category II fisheries require fishers to obtain an annual Marine Mammal Take Authorization from NOAA and carry it on board the vessel during any commercial fishing operations. Currently NOAA cites incidental takes of harbor porpoises in this fishery as being the driver for the Category II designation of the gillnet fishery.

An additional concern with net fishing is lost or derelict gear, which can remain in the environment and entangle animals until it is located and removed. Efforts to locate and remove derelict gear have increased in recent years. The Northwest Straits Foundation (NWSF) reported removing 4,764 derelict fishing nets from Puget Sound, the San Juan Islands, and the Strait of Juan de Fuca between 2002 and May of 2014. The length of time the nets have been in the water is estimated based on biological growth on the net as well as the amount of sediment on the net. The number of nets NWSF has removed from Puget Sound includes both “newly lost” and “legacy nets”, which are defined as nets estimated to have been in the water three years or less or for four or more years respectively. The majority of the nets identified and removed were gillnets, and based on interviews with fishers, data from enforcement agencies and recent fishing effort, NWSF estimates that between 5 and 13 additional nets or portions of nets are lost each year by non-treaty net fishermen in Puget Sound. In 2012 the state legislature passed a law requiring commercial fishermen to report any gear they abandon to WDFW within 24 hours, so that efforts can be made to locate and remove it as soon as possible. While removal projects have decreased the amount of derelict gear in Puget Sound, newly lost gear remains a concern, and it is too early to tell the extent that recent legislation regarding reporting requirements will help lessen that concern.

In summary, WDFW concludes that the adopted regulations for the 2014 Puget Sound commercial salmon seasons are reasonably constructed to meet the objective to minimize bycatch overall. However, with respect to non-target salmon species, seabirds, and other non-salmon species, continued and in certain cases increased monitoring is needed to verify that bycatch is indeed minimized. Until WDFW has the resources and ability to show that bycatch

for all species is minimized in Puget Sound commercial fisheries, it will continue to conservatively manage fisheries in regards to non-target species.

#### Objective 1c: Monitor fisheries to ensure a & b are met

Assessing non-target salmon bycatch is a matter of estimating both the number of fish encountered by the gear and the proportion of the fish released that will survive. WDFW relies on scientific studies to determine the release survival rate. The most accurate estimates of numbers of fish or other species incidentally encountered in purse seine and gillnet fisheries come from direct, on-board sampling by trained technical staff. The data collection is focused on non-target salmon species as well as ESA-listed species and other species of concern. However, this on-board sampling does not provide estimates for additional sources of fishing related-mortality, such as net dropout (fish that fall out of the net while it is being retrieved) or predation by marine mammals on fish captured in the net.

Prior to 2011, sampling and monitoring programs implemented by WDFW have been focused on purse seine fisheries to obtain mortality estimates on non-target salmonids. In-season monitoring data is needed from purse seine vessels to estimate the number of Chinook and coho they encounter in a fishery when they are not allowed to retain those species. For gillnet fisheries WDFW relies on fish tickets for non-target salmon catch numbers because the budget for sampling these fisheries is inadequate to support a program capable of collecting sufficient samples to generate statistically reliable estimates of Chinook and coho or any other non-salmon species encountered in the gillnet fisheries. From 2011-2013, WDFW focused a portion of its commercial sampling efforts on gillnet vessels in an attempt collect data on bycatch of non-target salmon, non-salable fish, and other species. With the limited resources available for commercial monitoring, the department had to reduce the sampling on purse seine vessels and rely on bycatch data and rates from past years with more robust sampling for projecting bycatch impacts for purse seines. Examination of gillnet observer data collected since 2011 has raised some questions about whether fish tickets can be used to accurately evaluate bycatch of non-target salmon species. For both Areas 10/11 and 12/12B, gillnet observer data show a higher rate of Chinook encounters than were reported on fish tickets for gillnet landings. WDFW currently does not have the resources to increase observer coverage in the gillnet fishery to determine the cause of discrepancies between fish tickets and observer data.

A number of species and stocks of conservation concern are encountered incidental to Puget Sound commercial salmon fisheries, including ESA-listed Chinook salmon, marbled murrelets, Puget Sound steelhead, and Puget Sound rockfish. Commercial fishers are prohibited from landing some of these species (e.g. steelhead) and therefore they are not reported on fish tickets. Consequently, WDFW has been unable to estimate by-catch in gill nets for some species. To address uncertainty and risk associated with this management information shortcoming, WDFW is continuing to evaluate alternative sampling programs designed for the collection of data from

Puget Sound gillnet fisheries. This will improve WDFW's confidence that fisheries are structured and implemented consistent with the objective of minimizing bycatch mortalities for these species. Unfortunately the sampling program is limited by its budget, meaning that comprehensive sampling of all fisheries to address bycatch concerns is not possible every year. Until the current sampling program is modified WDFW cannot collect the amount of data needed to conclude that bycatch is indeed minimized in all fisheries and will continue manage the Puget Sound commercial salmon fisheries cautiously. Further, WDFW will utilize limited sampling information in a precautionary manner and may adjust fishing schedules if data indicate that non-target species bycatch levels for either gear type are greater than levels assumed in pre-season planning models and analyses.

### Objective 2: Harvest the non-treaty share of salmon

The adopted rules and regulations of these commercial fisheries are designed to ensure that the total allowable catches defined for each fishery are fully utilized. Season structures considered for 2014 reflect expected abundance of target salmon species and stocks, based on preseason forecasts. Abundances for some salmon stocks will be updated as the season progresses, based on scientific information collected from the fisheries and agreements reached by the state and tribal co-managers. The non-Indian total allowable catch will be adjusted accordingly and may result in increasing non-Indian fishing opportunity. However, given the uncertainty associated with estimates of fishing effort, harvest rates, and the abundance of the target species or incidentally caught species, in-season adjustments to the fisheries may be necessary to meet conservation objectives. These adjustments could result in the harvest of less than the full non-Indian allowable catch. WDFW will attempt to provide advanced notice to the commercial fishing fleet of any changes to schedules.

If tribal harvest allocations are not fully utilized, then WDFW may seek to maximize the state's commercial-fishing harvest opportunity by adjusting the non-Indian total allowable catch consistent with the Washington Fish and Wildlife North of Falcon policy (C-3608). This policy states: "The Department will seek non-treaty fishing access to unutilized portions of treaty harvest allocations through the implementation of pre-season agreements, taking into consideration changes in abundance, fishery conflicts, and factors that may influence attainment of spawning escapement objectives."

### Objective 3: 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)

The adopted rules and regulations for these commercial fisheries are designed to maintain the economic well-being and stability of the fishing industry, and to provide a sustainable level of harvest sufficient to provide opportunity for each gear type. This management objective is challenging to address, given the diversity of the Puget Sound commercial salmon fishing fleet in

terms of gear types, and the number of discretely managed fisheries opened each year. In addition, the economic health and stability of these fisheries depends on many factors beyond WDFW's control, including the prices paid for salmon, the abundance of salmon, the relative size of the salmon, the proportion of vessels choosing to participate in a fishery, the catch rates of vessels that do participate, and other related factors.

Prices paid for salmon caught in these fisheries are influenced by international market conditions, which WDFW cannot control. Factors that affect the prices paid for salmon include the abundance of salmon in the fishery, the amount of salmon available from other fisheries such as Alaska, the amount of product stored from previous years, competition between buyers, quality of the fish, prices of farmed salmon and many other factors outside WDFW's control. WDFW also cannot control the effort of fishers who hold Puget Sound commercial salmon permits (195 gillnet and 75 purse seine). While WDFW can open areas to harvest of salmon for commercial 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 many factors including the price of salmon, cost of fuel, weather and tidal conditions, and harvest opportunities on other species and/or in other areas. Catch rates for a given gear type will vary between years and within a single year over individual openings due to changes in salmon abundance, salmon size, migration behavior, and many other operational decisions made by vessels participating in the fishery that are not listed here. WDFW cannot control any of these factors.

Finally, WDFW must negotiate non-treaty commercial salmon fishing openings with the Puget Sound Treaty tribes, consistent with the process developed under sub-proceedings of United States v. Washington. This means that there may be instances where WDFW would prefer to maintain or increase fishing opportunity for non-treaty fishers, but the ability to do so is affected by the outcome of negotiations with the tribes.

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 industry is by providing a predictable season structure designed to access the full allowable harvest. This management approach gives fishing businesses the ability to plan for upcoming opportunities and to make business-based decisions about when and where to fish. Significant changes to fishery schedules can be disruptive to individual fishers, gear groups, 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. In situations where the non-treaty share is not being fully utilized, increased opportunity can promote the

well-being of the industry, if that opportunity can be provided while meeting conservation objectives for target and non-target species and stocks.

The rationale for how the 2014 rules will promote the well-being and stability of the industry and allow a sustainable level of harvest is detailed by area and 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 3. The rationale for incorporating or not incorporating industry input received during the North of Falcon process is also included here.

*Area 6D (coho)* – The 2014 schedule is similar to recent years, except during the first week of the fishery. Per the Hood Canal Summer Chum Conservation Initiative, the fishery cannot open until 9/21. In recent years it has been open Monday through Friday each week, beginning on 9/21. In 2014 the first day the fishery can open is Sunday 9/21, meaning the first opening would be a day after the allowable opening date if Saturday and Sunday remained closed. The industry requested opening the fishery on Sunday and Monday of the first week to allow harvest on the first days the fishery can occur. WDFW negotiated with the tribes to open the non-treaty fishery on Sunday 9/21, Monday 9/22 and then close on Tuesday 9/23. The rest of the schedule is similar to recent years with the fishery closed on weekends.

*Area 7/7A (chum)* – In recent years, the non-treaty allocation of chum in areas 7/7A has not been fully harvested. In order to provide opportunity for the non-treaty fleet to harvest its share, an agreement was negotiated with the tribe to provide additional non-treaty fishing opportunity early in the season, if only a small portion of the non-treaty share has been harvested after the first three days of non-treaty fishing. The schedule may be adjusted inseason depending on the catch in those first three days. The 2014 schedule provides the maximum amount of fishing time for all gear types, within the constraints of the Pacific Salmon Treaty and negotiated co-management agreements for the treaty and non-treaty fleets.

*Area 7B/7C (Chinook/coho/chum)* – The fishing schedule for Areas 7B and 7C is similar to 2013, with the only adjustments being for calendar dates and management periods. There were several requests from industry for changes to gillnet mesh size requirements during specific weeks and for additional fishing opportunities during Chinook and coho fisheries. Due to the potential effects on Upper Fraser River coho stocks of concern, which make up a portion of the coho harvested in Area 7B, these changes were not made. Similar to recent years, the portion of Area 7B known as Hale Pass will be closed from September 1 to 21 to reduce impacts on Upper Fraser River coho while allowing fishing in the remainder of Area 7B.

*Area 8A (coho)* – The 2014 Area 8A coho schedule is similar to the 2013 schedule, with two weeks with limited opportunity openings for purse seine, one week with a limited opportunity opening for gillnets, and one week with two full-fleet gillnet openings.

*Area 9A (coho)* – The fishery is structured identical to recent years, with adjustments made for calendar dates, and will be open weekly Sunday through Saturday.

*Area 12A (coho)* – The fishery is structured similar to 2013, with beach seines opening on Thursday, August 21, the earliest date permitted under the Hood Canal Summer Chum Conservation Initiative. Skiff gillnet openings may be scheduled later in the season pending summer chum escapement numbers and discussions with co-managers.

*Areas 10/11 and 12/12B/12C (chum)* – From 2008 to 2013, the fishing schedules for chum fishing in South Puget Sound and Hood Canal provided consistent ratios of gillnet to purse fishing time, with small changes made annually to provide variation in first fishing opportunities within areas and weeks for each fishing group. The schedules for these areas were altered significantly in 2003, in response to multi-year signs of instability including low prices per pound for chum salmon and low participation and catches in these fisheries by the gillnet industry. Prior to 2003, WDFW managed these fisheries by providing equal fishing opportunity for the gill net and purse seine fleets, in terms of days open. Beginning in 2003, WDFW provided significant additional fishing time for gillnets, to promote the well-being of that sector of the industry. As the health of the gillnet industry has improved over time, as reflected by increased catch and ex-vessel values of catch in these fisheries, WDFW has adjusted fishing schedules to reduce the amount of extra time allocated to the gillnet fleet. Beginning in 2008, the annual fishing schedules included ‘Market’ openings for gillnet vessels in South Sound. These are 8-hour openings late in the week that are intended to promote efforts of gillnet fishers to supply fish to niche markets for the weekend, presumably with a larger economic benefit to the fisher than fish landed during normal openings early in the week.

The fishing schedules for chum fisheries in Area 10/11 and 12/12B must be considered together, as the timing of openings in one area affects participation levels and catch and economic outcomes in the other area. To assess the short- and long-term stability and well-being of the industry as reflected in these two closely-linked fisheries, WDFW assembled and analyzed catch data, economic information (ex-vessel landing value), and the number of licensed vessels, by gear type, for the chum salmon fisheries operating in these two areas combined, for the period from 1973 through 2013. Ex-vessel landing value data were adjusted according to the Consumer Price Index (CPI) to account for inflation and allow for comparability of the economic data between years. These data and summary statistics are presented in Table 1, including average values by each gear for the period 1973-2002 (the historical time period with consistent yearly fishing schedules providing equal fishing time to gillnet and purse seine gear), the period 2003-

2013 (the time period when extra fishing time was provided for gillnet gear) and also for the period 2008-2013 (the most recent time period with consistent yearly fishing schedules providing additional fishing time for gillnet gear).

For the period 1973-2002, gillnets landed an average of 32% of total catch in these two fisheries, while purse seines landed 68%. During that period, gillnets on average accounted for 78% of licenses eligible to participate in these fisheries, while purse seines accounted for 22%. The total number of participating licenses and the composition of the fleet by gear type have changed dramatically over time, due to changes in the salmon industry (such as a government-sponsored license buy-back program). Across the most recent time period, 2008-2013, the gillnet proportion of the fleet has been 72%, a 6% drop from historic levels, while the purse seine proportion increased from 22% to 28%. In order to calculate what the expected percentages of total catch would be given the change in fleet composition, WDFW calculated the mean percentage of total catch per mean percentage of licenses during the historic time period (1973-2002). These percentages were multiplied by the current percentages of licenses for each gear, then scaled to 100% to give the expected percentages of catch under the current fleet composition. Given the changes in fleet composition, the average catch share for gillnet would be expected to drop from a historical share of 32% to 26% and the average catch share for purse seine would be expected to proportionally increase from the historical share of 68% to 74%.

In 2013, WDFW projected that the fishing schedule would result in proportions of catch similar to the averages of the proportions from fisheries in 2008-2012, with 24% of the total catch by gillnets, and 76% by purse seines. Although both gear groups caught significantly larger numbers of fish and had higher ex-vessel values than projected pre-season (primarily due to a higher than predicted return of chum salmon in Hood Canal), the proportions of catch were markedly different than projected, with 14% of the catch by gillnets, and 86% by purse seines. WDFW questioned industry extensively for plausible explanations for the deviation in catch proportions in the sixth year of implantation of a consistent fishing schedule. The only explanation that was offered, and is supported by available data, is that gillnet effort decreased in 2013, in spite of consistent fishing opportunity. In 2013 the Area 10/11 gillnet fishery was open for the same number of days as planned pre-season but averaged 43 fewer landings per week than the number of landings seen from 2008-2012. In Hood Canal the gillnet effort increased early on in the season but tapered off with zero landings during the last three openings.

Although the decreased gillnet participation seen in 2013 was caused by factors beyond WDFW's control, such as market conditions, the deviation from expectation and from historic ratios seen in 2013 was large enough to cause concerns with stability, similar to the concerns that originally led the Department to provide additional gillnet opportunity

in 2003. Gillnet industry representatives requested that WDFW provide additional gillnet opportunity to address that instability. In response, the Department modified the proposed schedule by extending the South Sound gillnet 'Market' openings into full night openings, adding 33 hours to the fishery. This change is expected to result in small increases in participation on those nights in South Sound, although it is unclear whether that will lead to a concurrent decrease in participation in Hood Canal during those weeks. Analysis of data from past years with 'Market' openings does not show consistent ratios of catch or catch per unit effort between 'Market' and full night openings within weeks. In some cases, 'Market' openings have higher catch and CPUE than full night openings in the same week. This indicates that factors like run timing can have a larger effect on gillnet catch in an opening than the number of hours fished, and makes it difficult to project the effect of the schedule modification on catches and catch proportions.

After WDFW had altered the proposed fishing schedule as described above, negotiations with tribal co-managers led to additional changes. Tribes with fishing rights in Hood Canal and South Sound asked WDFW to limit purse seining in both areas to one day during week 44 of the season. In previous years, the schedule has provided 2 days for non-treaty purse seines and 2 days for non-treaty gillnets in both areas. The tribes expressed the need for additional week days during this peak week of the run for treaty fisherman to participate unimpeded by non-treaty effort, and believed that removal of one day of non-treaty purse seine fishing provided the best opportunity. The tribes made additional requests, such as limiting participation and net size in the fishery, and expanding the one-mile area closure south of the Hood Canal bridge. To reach agreement with the tribes for the 2014 fishing season, WDFW agreed to eliminate one day of purse seining in week 44 in both areas, in exchange for addition of one day of purse seining and two days of gillnetting in both areas in week 42. In addition, WDFW agreed to a 2-mile closure south of the Hood Canal Bridge for purse seines in week 44 and 45, with removal of the Hazel Point area closure in weeks 44 and 45, and for the entire season for gillnets.

Because non-treaty fisheries have not occurred prior to week 43 in recent years, there is little data available to use in projecting catches for the openings in week 42, or the effect of catches occurring in week 42 on subsequent catches in week 43. Chum abundances and catches will likely be lower in both areas for the first openings in week 42, but some of the fish that will be harvested in week 42 likely would have been available for harvest in week 43 absent the week 42 openings. Effects of the changes to area closures on catch are equally difficult to project, as catch data are collected on a broader Catch Area scale.

Based on 2014 chum run-size forecasts for South Sound and Hood Canal, and preliminary calculations of expected harvestable numbers at those run-sizes, the total non-treaty share of chum for those areas will be around 335,624, or 2.89 million pounds

(based on an average weight of 8.6 pounds per fish for 2008-2012). In 2013 gillnet fishers were paid an average of \$0.62 per pound for chum and purse seine fishers were paid \$0.65. If the entire non-treaty share, as projected pre-season, is harvested, and the price averages \$0.64 per pound for both gears, then the ex-vessel value for these fisheries will total \$1.96 million in 2014. It is reasonable to expect that catch and ex-vessel value totals will be split between gears by proportions similar to those seen in 2008-2013 with the exception of the additional gillnet fishing time with the change of market to full nights and week 42 fishing. Using the calculations described below, WDFW anticipates gillnets will catch 25% of the chum and purse seines will catch 75%. This anticipated outcome is very close to the historic averages of 26% and 74% for gillnets and purse seines.

From the period of 2008 to 2013 in Areas 10/11, the gillnet fleet averaged 268 chum per hour in while the purse seine fleet averaged 2,524 chum per hour. Using the catch per hour averages to account for the additional time scheduled for gillnets in South Sound and the recent year catch proportions for Hood Canal, a catch of 89,749 is expected for gillnets and a catch of 265,875 is expected for purse seines. For gillnets, a total catch of 89,749 chum equates to an ex-vessel value of \$508,912 or \$2,610 per gillnet license. For comparison to past values used in economic analysis of the fishery, which were CPI adjusted relative to 2010, this adjusts to \$2,533 (Figure 2). This value compares to a CPI-adjusted average of \$950 per gillnet license for the period 1973-2002. For purse seines, a total catch of 265,875 chum equates to an ex-vessel value of \$1,463,378 or \$19,512 per purse seine license. This equals \$18,146 in 2010 dollars (Figure 2), compared to a CPI adjusted average of \$6,100 per purse seine license for the period 1973-2002. These value per license calculations assume that all license holders participate in these fisheries. If not all license holders participate, the average amount per participant would be higher than these estimates at identical total ex-vessel values. The 2014 ex-vessel values are within the range seen from 2008-2013 and thus the anticipated outcome is similar to recent years.

To conclude, season structures defined by the 2014 Puget Sound commercial salmon regulations will promote the economic well-being and stability of the commercial fishing industry while meeting the constraints imposed by conservation objectives. While catch and ex-vessel value outcomes have not been projected for all species in all fishery management areas, WDFW has estimated likely outcomes for the South Sound and Hood Canal chum salmon fisheries, the two largest Puget sound commercial salmon fisheries that have generated a great deal of industry attention in recent years. WDFW has consistently stated that consistent fishing annual fishing schedules contribute to industry stability, but that factors beyond WDFW's control can contribute to instability. Changes to South Sound and Hood Canal chum schedules were made for 2014, in response to signals of instability in 2013, and in response to negotiations with Tribal Co-managers.

While projection of the effect of these changes is difficult, WDFW believes that they will result in catch proportions similar to the historic baseline, addressing the signs of instability seen in 2013. WDFW concludes that the projected result of the 2014 season is consistent with promoting both short- and long-term stability of the fishing industry (as reflected by comparison to the historical record), is consistent with maintaining the economic well-being of the industry, and provides sustainable harvest levels by offering opportunity for each gear type within the constraints of run-sizes forecast for 2014.

### **Response to Comments Received During Comment Period for WSR 14-05-102**

*Comment by David Harsila on behalf of Puget Sound Harvesters Association (PSHA) Board of Director: The 2013 catch numbers in Areas 10, 11, 12, and 12B represent a drastic decline in the gillnet harvest from recent years; gillnet catch in general is declining while purse seine efficiency is increasing; since 2007 the gillnet catch has been declining while the fleet size has remained stable. This does not promote long-term economic stability of the fleet and the disparity between gillnet and purse seine catches is hurting the gillnet fleet. Requests that WDFW adopt a fishing schedule similar to 2007; close Areas 10 and 11 to gillnets at 8 a.m. when conflicting with a purse seine opening and close at 9 a.m. all other days; and that WDFW use the same observer data forms for both gillnet and purse seine bycatch data.*

WDFW does not rely on any one factor to determine economic stability. The fishing schedule in areas 10, 11, 12 and 12B has remained consistent with annual adjustments for ‘first starts’ from 2008-2013. During this time period the gillnet chum catch has not decreased in these areas and the 2013 gillnet catch was the second highest since 2007. In 2013 the percent of fish caught by gillnets was different than predicted at 14% of the catch compared to the 24% average from the years 2008-2012 (years with the same schedule as implemented in 2013). While the percent of fish caught by gillnets was lower than expected, the number of fish caught was well within pre-season expectations and the ex-vessel value was on the high end of historic averages. Figures 1 and 2 show the increasing trend of gillnet ex-vessel values since 2003. With input from the industry, including PSHA, WDFW concluded that the largest factor in the change was a decline in gillnet effort during the 2013 season. WDFW cannot control the number of licenses that choose to participate in a fishery and cannot anticipate what the outcome of the fishery would be with large changes to the current schedule. To address the discrepancy seen in 2013 while seeking to maintain economic stability within the fleet, WDFW increased fishing time for the gillnet fleet in areas 10 and 11 by changing ‘market nights’ to full night openings and added 2 days of gillnet fishing during week 42 in areas 10, 11, 12 and 12B. These changes are expected to increase the gillnet catch to levels similar to historic proportions.

While WDFW appreciates the comments regarding the observer data forms, WDFW’s use of a particular data form is not relevant to the rules regarding the Puget Sound commercial salmon seasons. It is not practical to use the same forms for both gill nets and purse seines. Both forms have areas to write the specific catch and bycatch information collected in the fishery. The difference in the forms is due to the differences in how the gears fish and the different data needed for each set. Gillnets are a passive gear, meaning they set the net and essentially wait for fish to become entangled, whereas purse seines are an active gear in which the net encircles a school of salmon. For example, purse seine nets are open for an average of 30 minutes and once

they are closed, even with the net in the water, they are no longer able to catch fish and their location is less important. In contrast, gillnets catch salmon during any time a portion of the net is in the water which can be anywhere from 45 minutes to over 3 hours. During this time the net can drift large distances and location of the net at the beginning and the end of the set is important. Due to these inherent differences in gear functionality, it does not make sense to have identical data forms for gillnets and purse seines.

The department has not seen indications that efficiency in the purse seine fleet is increasing. WDFW and tribal co-managers rely on purse seine catch and effort data for in-season run size updates in South Puget Sound and Hood Canal. The data used in these models does not indicate any recent changes in the efficiency of the purse seine fleet.

*Comment by Shannon Moore regarding skiff gillnet and beach seine fisheries: WDFW should structure fisheries as follows: Area 6D should be open for 2 days initially, close for a day and then continue with the typical Monday-Friday schedule; provide earlier chum opportunity in Areas 12C and allow skiff gillnets in exclusion zone on east side of canal.*

In response to requests that Area 6D be open for two days in a row at the beginning of the fishery, WDFW discussed this with the co-managers and 6D will open for two days beginning September 21, close September 23, and then continue the Monday through Friday Schedule for the remainder of the season.

The Hood Canal chum fishery is structured to achieve the non-treaty share of chum and provides opportunity for gillnet fishing in Areas 12 and 12B at the beginning of the season. Historically non-tribal fishers have preferred to catch chum in the northern portion of Hood Canal and WDFW has structured fisheries accordingly. If in-season WDFW is concerned about not achieving the non-treaty share of chum, Area 12C (including Hoodspout Hatchery Zone) may be opened. The 2014 schedule differs from recent years with Area 12C scheduled to open a week earlier beginning in management week 45. The 1,000 foot closure along the eastern shore of Hood Canal was put in place during the mid-1990s to protect Hood Canal coho. While the status of Hood Canal coho has improved since the 1990s, this closure was identified as a sub-area closure that would remain in effect to reduce encounters with seabirds in a 2001 USFWS biological opinion. That biological opinion provides ESA coverage for take of marbled murrelets in Puget Sound commercial and recreational salmon fisheries. This area will remain closed to protect ESA-listed marbled murrelets.

*Comment by Shannon Moore and Terry Stebens: In recent years, large numbers of surplus early summer Chinook fish have returned to George Adams Hatchery and plans being implemented for that stock call for a reduction in production and increased harvest to reduce the number of fish returning early in the season. The department should open a beach seine or skiff gillnet fishery in Area 12C in early August to allow non-treaty commercial harvest of these surplus fish.*

WDFW and tribal co-managers are interested in reducing the number of Chinook returning to George Adams Hatchery early in the season. However, fisheries targeting those early-returning hatchery fish do have impacts on natural-origin Chinook returning to the Skokomish. There is a maximum exploitation rate ceiling allowed on these natural-origin fish under the Puget Sound

Chinook harvest management plan. Because natural-origin Skokomish Chinook were one of the limiting stocks in planning 2014 fisheries, and because sensitive negotiations with the co-managers over fisheries affecting Skokomish Chinook lasted into the final hours of the Pacific Fishery Management Council process, WDFW concluded that pushing for implementation of this new fishery was not worth the risk posed by failure to reach agreement on a Puget Sound-wide fishing package.

*Opposed to expansion of South Sound gillnet 'market' nights into full nights of fishing. The department has previously managed by providing equal fishing opportunity to both gears and the gillnet fleet already has more time than the purse seine fleet with the current schedule. The percentage of fish caught by the gillnet fleet does not represent the economic well-being of the industry and gillnet vessels that participated in the Hood Canal fishery in 2013 had the highest ex-vessel value since 1978. The schedule already favors gillnets and the 2013 reduction in the percentage of gillnet catch was based solely on a reduction in effort (Babich, Burton).*

WDFW agrees that providing consistent annual schedules does provide stability, and has avoided making changes to the schedule without evidence of instability that merits adjustments. As explained above, the deviation in 2013 catch proportions from expectation and from the historic baseline prompted WDFW to adopt a change to the 2014 schedule, with the conversion of the 'market' night openings to full nights of fishing. The outcome of this change is difficult to predict, and WDFW will evaluate the outcome in planning 2015 and future fisheries, to determine if this adjustment was appropriate, and whether further changes are warranted.

*3/31/14 emailed*

*Comment by David Harsila on behalf of PSHA: PSHA disagrees with Shannon Moore on virtually every comment he makes to the record and requests that WDFW do not take up time listening to him. PSHA also would like to note they are unaware of anyone he represents other than himself.*

The rule making process is an open public process and WDFW takes comments and input from everyone when crafting the rules. The agency cannot disregard comments at the request of other constituents on the basis that they do not agree with the comments.

*Comment by Shannon Moore: WDFW should structure coho fisheries in Area 8A should begin in week 37 (week beginning September 7) based on coho run timing; add one day of gillnet chum fishing in Areas 10/11 in week 42 (week beginning October 12).*

WDFW has many limitations when scheduling fisheries such as the limited entry coho fishery in Area 8A. The timing of the fishery is based on concerns over conflicts with recreational fishers and concerns regarding impacts to the Chinook runs that are more abundant in the beginning of September. These factors prevent scheduling an opening in the second week of September.

In Areas 10/11 and 12/12B, WDFW made edits to the 2014 schedule resulting in the addition of two days of gillnet fishing to week 42.

*Comment by David Harsila on behalf of PSHA: Says that the imbalance of dollars shared between the fleets needs to be addressed' because the purse seine ex-vessel values are increasing more than the gillnet ex-vessel values. Requests WDFW hold discussions with the commercial fleet on the economics of Puget Sound salmon fisheries and that these discussions take place with 'actual economists in order to achieve a more accurate and true analysis'.*

WDFW crafts regulations based on the objectives outlined in the CES with conservation of the resource and harvesting the non-treaty share of salmon prioritized above economic stability of the fishery. The ex-vessel values for both gears are increasing, indicating the fishing industry as a whole is doing well economically.

WDFW does not currently have the resources to have the fisheries analyzed by economists. WDFW held work group meetings with representatives of Puget Sound gillnet, purse seine and reef net fisheries in the mid-late 2000's, and asked for industry input on appropriate economic metrics for use in evaluating Puget Sound commercial fisheries. Ex-vessel value was the identified during those meetings as the best way to analyze economic stability without annual advanced economic analysis.

*Comment by Ed Manning: The gillnet fleet cannot expect parity with the purse seine fleet in Area 10/11 when all their effort is focused in Hood Canal. Additionally, the purse seine fleet needs the scheduled 2 days/week fisheries in Hood Canal in order to harvest quality fish and get a good price for those fish.*

As explained above, WDFW recognizes the close linkages between the South Sound and Hood Canal chum fisheries, and effort for each gear can switch between areas due to factors beyond the department's controls, including numbers of returning chum salmon to each area and market factors. The proportions of catch by each gear for both areas deviated from expectation and from the historic baseline in 2013, prompting the adjustments to the schedule for 2014. WDFW's preference was to retain both days of purse seine fishing in week 44 in both areas. Difficult negotiations with the co-managers, and the need to reach agreement on all Puget Sound fisheries, necessitated removing one day of purse seine fishing from the week 44 schedule.

*Comment by David Harsila on behalf of PSHA: Requests that WDFW change the fishing schedule in Areas 10/11 so gillnets do not fish 2 consecutive nights in weeks 43,45 and 47 and to reschedule those openings for Tuesdays and Thursdays.*

In response to comments on this subject, WDFW structured the fishery to be open to gillnets on Tuesdays and Thursdays during these weeks.

*Comment by Alicia Evans on behalf of PSVOA: PSVOA objects to changing the gillnet market nights to full nights in Area 10/11. If WDFW does schedule full night fisheries, PSVOA requests that on the 2 days where the gillnet openings overlap with the purse seine openings, the gillnets close at 7 am instead of 8 am.*

As explained in the CES, WDFW made changes to the Area 10/11 gillnet fishery by changing 'market nights' into full nights in the 2014 schedule. The 2013 gillnet proportion of catch

differed significantly from what was predicted and while WDFW does not allocate between the gears, the large difference created concerns about the economic stability of the fishery. WDFW will evaluate the outcome of this schedule change after the 2014 season to determine if this adjustment was appropriate, and whether further changes are warranted. The closure of gillnets at 8 am was based on an agreement with the purse seine fleet reached in 2009. Without this agreement, WDFW scheduled the gillnet fishery to close at 7 am on days when the purse seine fleet is open. This is consistent with the hours in the fishery prior to the agreement between the gears.

### **Response to Comments Received During Comment Period for WSR 14-09-108**

*Comments by Shannon Moore, David Harsila, and Ray Honea: Requests to continue 'Alternating first start' schedule implemented in recent years, which alternates which gear type has the first opening within each week throughout the season.*

The fishing schedule for South Puget Sound and Hood Canal in recent years has been complex, resulting from a set of compromises developed over several years. Negotiations with the co-managers late in the North of Falcon process, and the resulting movement of one day of seine fishing from week 44 to week 42, complicated the development of a schedule that retained that structure. WDFW published a schedule that was consistent with the outcome of negotiations with the co-managers in WSR 14-09-108, with the understanding that there would be additional industry comment in response to the changes made at the end of North of Falcon. WDFW has modified the schedule as published in WSR 14-09-108 to alternate first fishing opportunity each week between the gear types, in response to input received from industry.

*Comments by Ray Honea, David Harsila, Roland Hublou, Pete Knutson, and Matt Marinkovich: Requests to extend gillnet fishing hours in South Sound to 8:00 AM on mornings when purse seine fishing begins at 7:00 AM.*

Several individuals requested that gillnet fishing hours last until 8:00 AM on mornings when purse seine fishing opens at 7:00 AM, and pointed to agreements in recent years that allowed one hour of overlap with fisheries for both gear types open. Gillnet representatives claimed that closing at 7:00 is unprecedented, and will greatly reduce their catch. Prior to 2009, gillnet fisheries closed at 7:00 AM. In 2009, industry representatives agreed to a schedule with this one hour overlap, along with alternating first starts, and scheduling of one gillnet full night and one 'market' night in weeks when there was only one purse seine opening. Purse seine representatives opposed continued allowance of this overlap, given increases in gillnet opportunity from previous years' agreements.

Gillnet openings will end at 7:00 AM on the two mornings of the season when their opening immediately precedes a purse seine opening, one in week 42 and one in week 46, resulting in a total of 2 hours less opportunity than if the closures occurred at 8:00 AM. Changes to the fishing schedule, converting market nights to full nights of fishing, provide 33 hours of additional gillnet fishing opportunity compared to previous years. In addition, two nights of gillnet fishing are provided in week 42, adding 29 more hours over that provided in recent years. Claims that

closure of the gillnet fishery at 7:00 AM on two mornings of the season will unfairly handicap the gillnet fleet, given the fleet will have over a 60-hour increase in opportunity through new openings and extension of market night openings, are disingenuous.

*Comments by Bill Burton and Randy Babich: Opposition to expansion of South Sound gillnet 'market' nights into full nights of fishing. The department has previously managed by providing equal fishing opportunity to both gears. The consistent schedule implemented since 2008 has provided stability. Increase in gillnet opportunity is inconsistent with the 2013 CES.*

WDFW agrees that providing consistent annual schedules does provide stability, and has avoided making changes to the schedule without evidence of instability that merits adjustments. As explained above, the deviation in 2013 catch proportions from expectation and from the historic baseline prompted WDFW to adopt a change to the 2014 schedule, with the conversion of the 'market' night openings to full nights of fishing. The outcome of this change is hard to predict, and WDFW will evaluate the outcome in planning 2015 and future fisheries, to determine if this adjustment was appropriate, and whether further changes are warranted.

*Comments by Bill Burton and Randy Babich, and Ed Manning: Opposition to limiting purse seine fishing in South Sound and Hood Canal to one day in week 44. Concerns that moving one day of purse seine fishing in week 44 to week 42 will limit the ability to harvest the non-treaty share of chum salmon, and may increase bycatch of non-target coho.*

WDFW agrees with the concerns expressed with changes to the purse seine fishing schedule. Difficult negotiations with the co-managers, and the need to reach agreement on all Puget Sound fisheries, necessitated removing one day of purse seine fishing from the week 44 schedule. Concerns over lower chum and higher coho abundance in the week 42 opening are valid; however WDFW felt that addition of fishing opportunity in week 42 was preferable to a reduction in week 44 opportunities with no corresponding increase earlier in the season.

*Comment by Shannon Moore: Gillnet fishing with 7-inch Chinook mesh should be allowed in September in Hale's pass, when the area is currently scheduled to be closed due to Upper Fraser coho conservation constraints.*

The Hale Pass area has been closed to gillnet fishing for a portion of September in recent years to limit the U.S. impact on Upper Fraser River coho to levels specified in the Pacific Salmon Treaty. If Hale Pass remained open for gillnets in September, coho impacts likely would be reduced by a regulation requiring fishers in the area to use a larger minimum mesh size. However, WDFW does not have data or other technical basis for modeling the effect of such a regulation on mortality of coho. The Hale Pass closure for gillnets will remain in effect from September 1-21.

## **Conclusion**

WDFW has considered all the facts and circumstances surrounding the 2014 Puget Sound Commercial salmon season schedule. The agency carefully reviewed all input from industry representatives during the North of Falcon public meetings and the state's rule making process. The agency's 2014 Puget Sound commercial salmon fishing regulations comply with its statutory mandate and are consistent with WDFW's management objectives for these fisheries.

Table 1. Chum catch, licenses and economic values for gillnet and purse seine, in the combined South Sound and Hood Canal fisheries, 1973-2013.

Year	CPI	Combined Gears Total Catch	Combined Gears Ex-vesse Value	Combined Gears Ex-vessel Value CPI adjusted	GN Licenses	GN Catch	GN Proportion of catch	GN Ex-vessel Value	GN Ex-vessel Value CPI Adjusted	GN Ex-vessel Value CPI Adjusted Per License	Purse Seine Licenses	PS Catch	PS Proportion of Catch	PS Ex-Vessel Value	PS Ex-Vessel Value CPI Adjusted	PS Ex-vessel Value CPI Adjusted Per License
1973	4.92	93,264	\$734,961	\$3,616,011	1,303	59,793	0.64	\$472,419	\$2,324,303	\$1,784	320	33,471	0.36	\$262,542	\$1,291,707	\$4,037
1974	4.43	15,353	\$78,322	\$346,965	1,990	2,023	0.13	\$10,399	\$46,069	\$23	137	13,330	0.87	\$67,923	\$300,897	\$2,196
1975	4.06	6,534	\$49,699	\$201,777	1,659	3,017	0.46	\$20,410	\$82,865	\$50	385	3,517	0.54	\$29,289	\$118,912	\$309
1976	3.84	119,743	\$1,107,754	\$4,253,777	1,536	65,385	0.55	\$644,114	\$2,473,399	\$1,610	376	54,358	0.45	\$463,640	\$1,780,378	\$4,735
1977	3.6	146,509	\$1,471,793	\$5,298,456	1,517	114,444	0.78	\$1,189,141	\$4,280,906	\$2,822	393	32,065	0.22	\$282,653	\$1,017,550	\$2,589
1978	3.35	291,755	\$3,110,616	\$10,420,562	1,532	166,416	0.57	\$2,132,816	\$7,144,932	\$4,664	402	125,339	0.43	\$977,800	\$3,275,630	\$8,148
1979	3.01	13,063	\$87,840	\$264,399	1,501	6,901	0.53	\$54,040	\$162,659	\$108	402	6,162	0.47	\$33,800	\$101,739	\$253
1980	2.65	192,116	\$1,029,828	\$2,729,043	1,487	78,977	0.41	\$513,517	\$1,360,819	\$915	398	113,139	0.59	\$516,311	\$1,368,224	\$3,438
1981	2.4	123,688	\$1,113,134	\$2,671,521	1,450	63,428	0.51	\$587,612	\$1,410,268	\$973	396	60,260	0.49	\$525,522	\$1,261,253	\$3,185
1982	2.26	200,191	\$1,144,347	\$2,586,225	1,420	70,801	0.35	\$425,611	\$961,881	\$677	390	129,390	0.65	\$718,736	\$1,624,344	\$4,165
1983	2.19	128,969	\$1,039,556	\$2,276,629	1,374	46,097	0.36	\$376,604	\$824,762	\$600	383	82,872	0.64	\$662,953	\$1,451,866	\$3,791
1984	2.1	266,228	\$2,016,143	\$4,233,901	1,259	94,041	0.35	\$708,422	\$1,487,686	\$1,182	367	172,187	0.65	\$1,307,722	\$2,746,215	\$7,483
1985	2.03	184,764	\$935,630	\$1,899,328	1,196	53,811	0.29	\$335,146	\$680,347	\$569	349	130,953	0.71	\$600,483	\$1,218,981	\$3,493
1986	1.99	276,814	\$1,141,165	\$2,270,918	1,200	71,595	0.26	\$301,284	\$599,555	\$500	345	205,219	0.74	\$839,881	\$1,671,363	\$4,845
1987	1.92	466,208	\$6,608,284	\$12,687,905	1,148	105,651	0.23	\$1,760,755	\$3,380,650	\$2,945	341	360,557	0.77	\$4,847,529	\$9,307,255	\$27,294
1988	1.85	471,548	\$3,651,358	\$6,755,012	1,142	153,758	0.33	\$1,223,330	\$2,263,160	\$1,982	342	317,790	0.67	\$2,428,028	\$4,491,852	\$13,134
1989	1.76	274,858	\$2,430,410	\$4,277,522	1,152	95,913	0.35	\$828,325	\$1,457,851	\$1,265	341	178,945	0.65	\$1,602,086	\$2,819,671	\$8,269
1990	1.67	261,821	\$2,270,850	\$3,792,320	1,148	89,200	0.34	\$776,463	\$1,296,693	\$1,130	337	172,621	0.66	\$1,494,388	\$2,495,627	\$7,405
1991	1.6	307,908	\$1,481,976	\$2,371,161	1,132	77,835	0.25	\$423,123	\$676,996	\$598	330	230,073	0.75	\$1,058,853	\$1,694,165	\$5,134
1992	1.56	529,520	\$2,461,390	\$3,839,769	1,118	173,808	0.33	\$833,282	\$1,299,919	\$1,163	327	355,712	0.67	\$1,628,109	\$2,539,849	\$7,767
1993	1.51	402,089	\$2,316,092	\$3,497,299	1,083	125,238	0.31	\$757,658	\$1,144,064	\$1,056	318	276,851	0.69	\$1,558,434	\$2,353,235	\$7,400
1994	1.47	386,967	\$1,104,806	\$1,624,065	1,042	64,465	0.17	\$181,819	\$267,274	\$257	306	322,502	0.83	\$922,987	\$1,356,791	\$4,434
1995	1.43	288,538	\$809,434	\$1,157,490	966	55,178	0.19	\$150,667	\$215,454	\$223	297	233,360	0.81	\$658,767	\$942,037	\$3,172
1996	1.39	490,370	\$786,358	\$1,093,038	887	74,319	0.15	\$114,229	\$158,779	\$179	292	416,051	0.85	\$672,129	\$934,259	\$3,200
1997	1.36	209,837	\$856,313	\$1,164,585	872	19,488	0.09	\$74,057	\$100,718	\$116	290	190,349	0.91	\$782,255	\$1,063,867	\$3,669
1998	1.34	414,133	\$682,627	\$914,720	820	52,035	0.13	\$86,581	\$116,019	\$141	276	362,098	0.87	\$596,046	\$798,701	\$2,894
1999	1.31	90,471	\$317,261	\$415,612	682	18,782	0.21	\$63,843	\$83,635	\$123	262	71,689	0.79	\$253,418	\$331,978	\$1,267
2000	1.27	123,932	\$627,545	\$796,982	679	19,329	0.16	\$92,279	\$117,194	\$173	262	104,603	0.84	\$535,266	\$679,787	\$2,595
2001	1.23	679,244	\$1,490,595	\$1,833,432	359	48,505	0.07	\$100,715	\$123,880	\$345	122	630,739	0.93	\$1,389,880	\$1,709,552	\$14,013
2002	1.21	788,468	\$1,317,428	\$1,594,087	215	29,534	0.04	\$48,076	\$58,172	\$271	84	758,934	0.96	\$1,269,351	\$1,535,915	\$18,285
2003	1.19	713,597	\$1,339,056	\$1,593,476	208	59,043	0.08	\$104,987	\$124,935	\$601	83	654,554	0.92	\$1,234,068	\$1,468,541	\$17,693
2004	1.16	1,047,080	\$2,718,389	\$3,153,332	204	113,781	0.11	\$324,818	\$376,789	\$1,847	81	933,299	0.89	\$2,393,572	\$2,776,543	\$34,278
2005	1.12	318,802	\$1,327,792	\$1,487,127	202	94,944	0.30	\$386,887	\$433,314	\$2,145	81	223,858	0.70	\$940,905	\$1,053,813	\$13,010
2006	1.08	695,849	\$3,748,099	\$4,047,946	198	116,160	0.17	\$590,702	\$637,958	\$3,222	75	579,689	0.83	\$3,157,397	\$3,409,989	\$45,467
2007	1.05	598,376	\$4,719,458	\$4,955,431	198	169,933	0.28	\$1,324,268	\$1,390,481	\$7,023	75	428,443	0.72	\$3,395,191	\$3,564,950	\$47,533
2008	1.01	375,857	\$2,937,003	\$2,966,373	196	92,454	0.25	\$721,898	\$729,117	\$3,720	75	283,403	0.75	\$2,215,105	\$2,237,256	\$29,830
2009	1.02	278,064	\$1,780,429	\$1,816,037	195	78,693	0.28	\$517,907	\$528,265	\$2,709	75	199,371	0.72	\$1,262,522	\$1,287,772	\$17,170
2010	1	404,366	\$3,429,154	\$3,429,154	195	98,057	0.24	\$833,760	\$833,760	\$4,276	75	306,309	0.76	\$2,595,393	\$2,595,393	\$34,605
2011	0.97	431,128	\$4,311,188	\$4,181,852	195	88,405	0.21	\$943,899	\$915,582	\$4,695	75	342,723	0.79	\$3,367,289	\$3,266,270	\$43,550
2012	0.95	538,130	\$3,678,425	\$3,494,504	195	131,532	0.24	\$862,026	\$818,925	\$4,200	75	406,598	0.76	\$2,816,399	\$2,675,579	\$35,674
2013	0.94	874,442	\$4,915,441	\$4,620,515	195	115,008	0.13	\$633,136	\$595,148	\$3,052	75	759,434	0.87	\$4,282,305	\$4,025,367	\$53,672
1973-2002 Avg.		274,830	\$1,475,784	\$3,029,484	1,162	69,992	0.32	\$509,558	\$1,220,030	\$948	319	204,838	0.68	\$966,226	\$1,809,453	\$6,087
2003-2013 Avg.		540,125	\$2,998,899	\$3,112,523	199	104,300	0.22	\$658,572	\$671,298	\$3,408	77	435,825	0.78	\$2,514,559	\$2,578,316	\$33,862
2008-2013 avg.		483,665	\$3,508,607	\$3,418,072	195	100,692	0.23	\$752,104	\$736,799	\$3,775	75	382,973	0.77	\$2,756,502	\$2,681,273	\$35,750

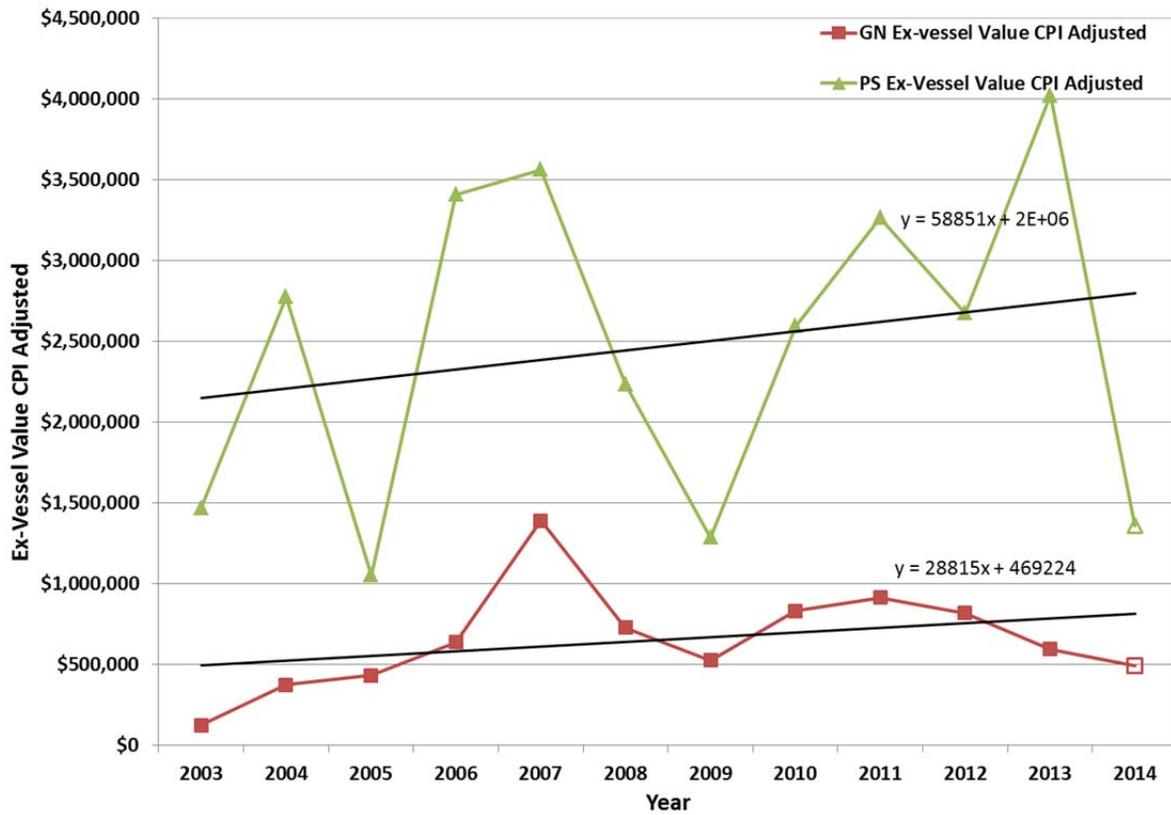


Figure 1. Trends in annual, CPI-adjusted ex-vessel value of gillnet and purse seine chum salmon landings for South Sound (Areas 10 and 11) and Hood Canal (Areas 12, 12B and 12C), 2003 – 2013, and projected value for 2014.

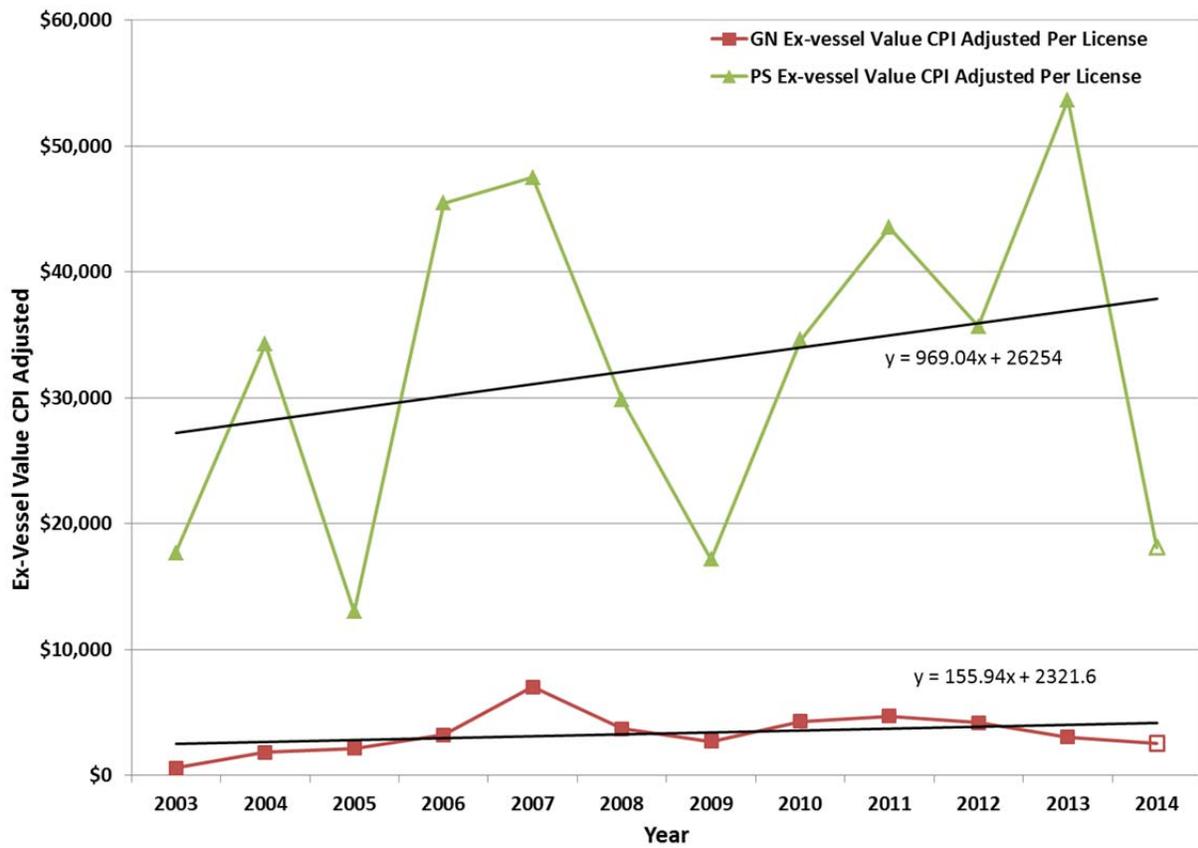


Figure 2. Trends in annual, CPI-adjusted ex-vessel value per license for gillnet and purse seine chum salmon landings for South Sound (Areas 10 and 11) and Hood Canal (Areas 12, 12B, and 12C), 2003– 2013, and projected value for 2014.