

Concise Explanatory Statement

Puget Sound Commercial Salmon Regulations for 2012

This Concise Explanatory Statement (CES) describes the Washington Department of Fish and Wildlife's (WDFW) reasons for adopting the 2012 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, -427, and -428.

Rule Development Process

The 2012 annual public process for defining salmon fishery rules, known as North of Falcon, began on January 26, 2012 with a meeting with the industry to review the 2011 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 2011 Puget Sound commercial salmon fisheries and discussed outcomes of the season, and also began discussions on the upcoming 2012 season. An additional meeting was held on February 9, 2012 with representatives of the beach seine and skiff gillnet industries to discuss issues unique to those gear types.

The next North of Falcon meeting, presenting the 2012 run forecasts, was held in the Natural Resources Building in Olympia on February 28, 2012. WDFW presented and discussed the 2012 preseason forecasts of salmon abundance with interested stakeholders. Implications of the forecasts and 2012 season planning were discussed in a Puget Sound commercial break-out session during this meeting. Additional public meetings were held March 12th, March 20th, and March 28th. During these meetings WDFW gathered input on structuring fishing seasons, possible rule changes and provided the public with information on the status of the 2012 planning process. Formal rule making hearings were held on March 30, 2012 and June 26, 2012 to provide an opportunity for comments on the proposed rules as published in WSR issues 12-05 and 12-11. 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 2012 commercial salmon season regulations as Washington State Register (WSR) 12-05-112 on March 7, 2012. This filing included changes to WAC 220-47-311, -401, -411, -427, -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 12-11-128, was published in the WSR on June 6, 2012, to cover the modifications made to the rules after the original filing. The supplemental filing included changes to WAC 220-47-311, -411, -428 and the addition of changes to WAC 220-47-307. An attachment explaining the changes made from WSR 12-05-112 was included in the supplemental filing of the proposed rule changes. Information regarding both filings of the proposed rule

changes was mailed out to license holders, available at meetings and posted on WDFW's website.

During the 2012 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 2012 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 on March 7 and June 6, 2012. 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 2012 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 2012 Puget Sound commercial salmon fisheries were considered with respect to the following management objectives, listed in order of priority. These objectives are identical to the objectives used for setting seasons in 2011, and they were shared with industry representatives during the North of Falcon public process:

1. Achieve conservation objectives for all species and stocks
 - a. Ensure primary stocks meet escapement goals
 - b. Minimize by-catch of all non-target species
 - 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 2012 Puget Sound commercial fishing regulations are consistent with these management objectives based on the following rationale:

Objective 1a: Ensure primary stocks meet escapement goals

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: Minimize bycatch of all non-target species

In structuring rules for the 2012 commercial salmon seasons, WDFW considered impacts of fisheries on non-target species; including, 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 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 a recommendation 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. However, absent direct sampling of the fishery and with the potential for underestimation due to discard of fish damaged by marine mammals, WDFW is reluctant to rely on fish ticket data to estimate bycatch for all fisheries. Under unique circumstances, such as when participation is limited so that the fishery may readily be monitored or when extraordinary monitoring is required (e.g., in the extreme terminal Area 12A coho fishery with skiff gillnets), WDFW has concluded that the bycatch minimization objective will be achieved by requiring release. However, for most of the current Puget Sound gillnet salmon fishing opportunities, monitoring data demonstrating mortality rates and confirming fish ticket-based rates of capture or encounter of non-target bycatch species are not available. This lack of data presents a situation of considerable risk that the bycatch minimization objective may not currently be achieved. This concern is further discussed with respect to the management objective for monitoring (1c) in the next section.

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. In addition, increasing attention has been focused on spiny dogfish, including a request by the Fish and Wildlife Commission in 2011 for an estimate of bycatch of dogfish in Puget Sound commercial salmon fisheries. Other wildlife species of concern in Puget Sound include federal ESA-listed killer whales, stellar sealions 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.

Sampling programs will need to be improved in order to increase our confidence that gillnet encounter rates are low enough to conclude that bycatch mortalities are truly minimized. 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). Marine mammal bycatch may also be a problem with gillnet fishing. Data collected by WDFW observers on board the one vessel that participated in the 2009 Area 10 pink salmon fishery showed the catch of the target pink salmon was 39, and the non-targeted salmon catch was reasonably low (1 coho and 2 chum salmon). However, 2 porpoises were entangled and appeared to be dead when removed from the net.

The adopted regulations for the 2012 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 2012.

In summary, WDFW concludes that the adopted regulations for the 2012 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, existing information about capture or encounter rates in gillnet fisheries is insufficient to verify that bycatch is indeed minimized. For this reason, and until such data or analyses are available, WDFW is reluctant to provide significant additional or expanded fishing opportunities for gillnet gear except in situations with special limitations on participation levels, special controls on gear operation, and special monitoring of actual bycatch conditions. Future Puget Sound commercial salmon fishing season opportunities, especially opportunities for gillnet fishing (see Objective 1c), will depend on the ability to continue and improve sampling programs.

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 in recent seasons had been almost entirely focused on purse seine fisheries. Very little direct or on-water sampling of gillnet gear operations had been conducted. WDFW sampling programs had not been applied to gillnet gear in recent seasons, primarily because the current WDFW budget for sampling these fisheries is inadequate to support a program capable of collecting sufficient samples to generate statistically reliable estimates of encountered Chinook and coho or non-salmon species in the gillnet fisheries. Therefore WDFW relies on gillnet fishermen self-reporting non-target salmon species through sales receipts. During the 2011 season, WDFW focused a portion of its commercial sampling efforts on gillnet vessels to collect data on bycatch of non-target salmon and other species. With the limited resources available for commercial monitoring, the department had to reduce the sampling on purse seine vessels. Preliminary examination of the 2011 gillnet observer data 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/1000 chum than were reported on fish tickets for gillnet landings. While the gillnet data gathered in 2011 is valuable, additional years of gillnet monitoring are needed to accurately assess the bycatch impacts of the Puget Sound commercial gillnet fisheries.

A number of species and stocks of conservation concern are encountered incidental to Puget Sound commercial salmon fisheries, including ESA-listed Chinook salmon, seabirds, Puget Sound steelhead, and Puget Sound rockfish. 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. However, until the current sampling program is modified and the data collected are sufficient to conclude that bycatch is indeed minimized, WDFW will 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 2012 reflect expected abundance of target salmon species and stocks, based on preseason forecasts. One significant difference between the seasons and regulations considered this year and those considered last year is the lack of opportunity to harvest Puget Sound pink salmon, a species that returns only in odd years. 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 or incidentally caught resources, 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 related factors.

Prices paid for salmon caught 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 and weather conditions. 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.

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 2012 rules will promote the well-being and stability of the industry and allow a sustainable level of harvest is detailed by fishery below. Due to the potential destabilizing 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 2012 schedule is similar to recent years, except during the first two weeks of the fishery. The industry requested the fishery be open for at least two consecutive days during the first opening. 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 2012 the first day the fishery can open is Friday 9/21, meaning the first opening would only last one day if Saturday remained closed. WDFW negotiated with the tribes to open the non-treaty fishery on Friday 9/21 and Saturday 9/22 of the first week, and then close on Sunday 9/23 and Monday 9/24. The rest of the schedule is similar to recent years with the fishery closed on weekends.

Area 7/7A (chum) – The 2012 schedule is similar to recent years. In recent years, the non-treaty allocation of chum in areas 7/7A has not been fully harvested. The 2012 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 (all species) – The Lummi Tribe requested that the on reservation portion of Bellingham Bay (Area 7B) be closed to non-treaty fishers. In prior seasons, WDFW recommended that non-treaty fishers stay off shore from the mean low water line, or they may be subject to federal laws in that area. An area approximating the reservation boundary, designated in the rules by geographic coordinates, will be closed to non-treaty fishers in 2012.

Area 7B/7C (Chinook) – Similar to 2011, an additional day of gillnet fishing was scheduled during the week of August 26 due to increases in the forecasted return and corresponding non-treaty share in Bellingham Bay.

Area 7B (coho) – The Hales Pass portion of Bellingham Bay will be closed to gillnet fishing during the first three weeks of September to minimize impacts on non-local stocks of wild coho. Purse seines fishing in this area will be required to release all coho salmon. In 2011, the area was closed for the entire month of September. Industry requested that if a closure was necessary, to impose the closure in the second half of September. However, due to timing of impacts on stocks of concern, closure during the first three weeks of September was necessary to meet conservation objectives. As in 2011, to offset opportunity lost from the temporary closure of Hales Pass and to allow harvest of the non-treaty share of Bellingham Bay coho, which has not been fully harvested in recent years, increased gillnet fishing time was scheduled in area 7B during early September.

Area 8A (coho) – The 2012 Area 8A coho schedule reflects reduced opportunity from previous years due to conservation concerns for Snohomish and Stillaguamish chum salmon potentially caught as bycatch in the coho fishery. The 2012 fishery is similar to 2011

with two days of limited-participation purse seine fishing and two full-fleet gillnet openings. Per industry request, one day of limited participation gillnet fishing was added to the first week of the fishery. The area 8A limited participation fisheries have a maximum of two boats fishing per day. As in 2011, the fishery will occur one week earlier than in previous years, to limit impacts on chum salmon. The industry requested the fishery occur a week earlier than currently scheduled. Because the fishery was advanced by one week in 2011, and because shifting it further forward could lead to increased impacts on non-target stocks and species, the fishery will open in the same week as 2011.

Area 8D (coho and chum) – Gillnet opportunity was increased during the chum fishery in Area 8D in 2011, to allow harvest of a greater portion of the non-treaty allocation. The 2012 schedule is identical to 2011, with adjustments for calendar dates. The industry requested the fishery open one week earlier than previous years. WDFW has concerns about the impacts on non-target species and stocks if the fishery is moved to an earlier week. With the current schedule, the fishery opens the same week as the area 8D treaty coho fishery.

Area 9A (coho) – The fishery is structured identical to 2011, with adjustments made for calendar dates, and will be open weekly Sunday through Saturday.

Area 12 A (coho) – The fishery is structured similar to 2011, opening on August 21, the earliest date permitted under the Hood Canal Summer Chum Conservation Initiative. The industry requested beach seine gear maximum size restrictions be increased to 990 feet in length and 200 meshes in depth. Because there were no conservation or bycatch issues with this proposal, these new restrictions will be in place for the 2012 fisheries. This change should increase the portion of the non-treaty share of Quilcene Bay coho that is harvested.

Areas 10/11 and 12/12B/12C (chum) – The 2012 schedule for chum fishing in South Puget Sound and Hood Canal is similar to the schedules implemented in recent years, which have provided consistent fishing opportunity for both gear types since 2008, with small changes made each year to allow alternating first openings in each area for each gear type.

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. However, 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. As described below, WDFW believes the schedule contemplated by the current rules will maintain the long-term stability of both the gillnet and purse seine sectors.

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 2011. 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), and also for the period 2008-2011 (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). For the most recent time period, 2008-2011, the gillnet proportion of the fleet dropped from 78% to 72%, while the purse seine proportion increased from 22% to 28%. Considering this change 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 proportionally increase from the historical share of 68% to 74%.

The analysis completed during the 2011 North of Falcon process showed that the results of the 2008-2010 seasons were consistent with the historic catch proportions adjusted for changes to fleet composition. The catch share taken by gillnets ranged from 24% to 28%, averaging 26%, and the catch share taken by purse seines ranged from 72% to 76%, averaging 74%. WDFW concluded that the 2011 fishing schedule, which provided

similar opportunity to the 2008-2010 schedules, was likely to result in similar, stable catch proportions for both groups.

The actual catch share outcome in 2011 was outside the range of results seen in 2008-2011, with gillnets catching 21% and purse seines catching 79% of chum in these fisheries. This was in spite of the fact that purse seine fishing opportunity was reduced late in the season, due to small numbers of harvestable chum remaining in the non-treaty share. WDFW explored possible explanations for the deviation from expectation using the data available. Ex-vessel prices were high for both gear types in 2011, averaging \$1.32 per pound for gillnet and \$1.28 for purse seine, so it is unlikely that low market prices discouraged gillnet participation. Effort (number of vessels making landings), runsize, and total non-treaty catch were all within the range seen in recent years for both gear types, so those factors do not explain the lower than expected catch proportion for the gillnet fleet. WDFW did receive reports during the 2011 season that the average weight of chum landed in Washington and Canadian fisheries was smaller than normal. Because gillnet gear is size selective, fish returning at sizes smaller than normal may not be harvested as efficiently as normal-sized fish and could reduce gillnet catch rates, and the proportion of total catch by gillnets.

Analysis of weight data for landed chum from 1973-2011 shows that the average weight per fish in 2011 was well below normal for both gear types in South Sound and Hood Canal. The average weight of chum captured by gillnets was 8.1 pounds in both areas, the lowest average weight on record (Figures 1 and 2). The average weight of chum caught by purse seines was 7.7 pounds, at or near the lowest on record for each area. WDFW believes that the small average size of chum returning in 2011 was likely a major factor in the decreased gillnet proportion of total catch as compared to the proportions in 2008-2010, when fish were of size closer to average.

Size of maturing chum is affected by a wide range interrelated factors, including oceanographic conditions, prey abundance, variable age at maturity of chum, and the abundance and distribution of other species competing for the same prey. There is no method available for predicting the size of returning chum, however past variability in annual size indicates that the record low average weights observed are unlikely to occur again in 2012. Without other unforeseen factors affecting catch rates of either gear, WDFW expects the catch proportions using a schedule with fishing opportunity similar to that of the 2008-2011 schedules to return to proportions more similar to those seen from 2008-2010. For calculating projected catch proportions in 2012, the 2008-2011 averages were used, meaning that the unexpected 2011 result is considered in the projections. For the 2008-2011 time period, gillnets averaged 24.4% of total catch, and purse seines averaged 75.6% of total catch. These proportions are close to the historic adjusted

percentages of 26% and 74% referenced above, indicating that the schedule promotes long-term stability for the industry.

Gillnets are currently restricted to a minimum mesh size of 6 ¼” when fishing for chum salmon. This mesh size restriction is used to minimize bycatch of coho and juvenile Chinook salmon. WDFW discussed the idea of allowing smaller mesh gillnets in the future, should in-season data indicate chum that were much smaller than average, and if in-season monitoring indicated low levels of bycatch in gillnet gear. Industry response was overwhelmingly against allowing smaller mesh gillnets during the chum fishery, and expressed several concerns with the idea. First, they said that it would not be possible to buy or build a smaller-meshed net quickly enough to respond, should chum return at small size in-season. They also did not believe it was financially practical to build a smaller-mesh net in advance of the season, given the low probability of seeing chum return again at sizes so far below average. Finally they were concerned that use of mesh size below 6 ¼” could lead to increased rates of bycatch in the fishery. Based on this input, no changes to gillnet mesh restrictions were considered further.

Two modifications were made to the Area 10/11 chum fishing schedule for 2012 at the request of the gillnet industry. Although there is no way to project the impact of these changes on catch proportions, they could have some effect.

The first modification of the 2012 Area 10/11 season rearranged the weekly pattern of gillnet openings. Since 2008, the first and third weeks of the season have included a one day purse seine opening, a full-night gillnet opening, and a half-night gillnet “market” opening, intended to allow gillnet license holders to supply fish to local markets. The second and fourth weeks of the season have included two purse seine openings, and two full-night gillnet openings. For the 2012 season, the gillnet industry requested switching the full and half night openings between weeks for those four weeks, meaning that gillnets would have two full-night openings during the weeks with a single seine opening, and would have one and one half night openings during the weeks with two seine openings. Industry proposed this modification as a conservation measure, to spread the harvest of chum more evenly across the season, rather than concentrating the impact on certain weeks.

The second modification extended daily hours opened for gillnet gear. Because the modification of the described above would eliminate the hours when gillnet and purse seine openings overlapped during two openings, the industry requested that the gillnet hours be extended from 8:00 AM to 9:00 AM on those days. There was also a request to extend the openings in later weeks, which have closed at 8:00 AM in the past, to 9:00 AM on dates where there is no overlap with a PS opening. In all, this amounts to 4 one-

hour extensions over the season, representing additional opportunity from the schedule in recent years.

WDFW informed industry during the North of Falcon process that while these changes could have some impact on catch proportions, there was no way to project what that impact would be. Although WDFW believes it is prudent to avoid annual or short-term adjustments to season schedules, these changes did not seem likely to have any destabilizing effects across the season, such as significant changes in participation or catch proportions. Because representatives of both gear groups agreed that these changes were acceptable for 2012, and because the changes were unlikely to have destabilizing effects, WDFW supported the modifications.

Since 2003, the CPI-adjusted ex-vessel value of landed catch has varied annually for both gear types. Ex-vessel value has shown an increasing trend for both gears over that period, due in large part to increases in price per pound paid for chum salmon. Average price for these areas increased steadily, from a low of \$0.21 in 2003 to a high of \$1.28 in 2011. While the market price for chum is controlled by factors beyond WDFW's influence, prices per pound paid each year to gillnet fishers have been very similar to prices paid to purse seine fishers. This outcome indicates recent fishing schedules that include increased fishing opportunity for the gillnet sector have contributed to the economic well-being of the industry overall.

Based on 2012 chum run-size forecasts for South Sound and Hood Canal, and preliminary calculations of expected harvestable numbers at those runsizes, the total non-treaty share of chum for those areas will be around 319,000, or 2.743 million pounds (based on an average weight of 8.6 pounds per fish for 2008-2011). The average annual price per pound in these areas from 2008-2011 was \$0.97 per pound. If the entire non-treaty share, as projected pre-season, is harvested, and the price averages \$0.97 per pound, then the ex-vessel value for these fisheries will total \$2.66 million in 2012. It is reasonable to expect that catch and ex-vessel value totals will be split between gears by proportions similar to those seen in 2008-2011, since similar fishing opportunity was scheduled in those years for these two areas. For gillnets, a total catch of 77,800 chum salmon is expected, with an ex-vessel value of \$649,000 or \$3,330 per gillnet license, compared to a CPI-adjusted average of \$1,050 per gillnet license for the period 1973-2002. For purse seines, a total catch of 241,200 chum salmon is expected, with an ex-vessel value of \$2,011,000 or \$26,820 per purse seine license, compared to an average of just \$5,672 per purse seine license for the period 1973-2002.

These projections for the 2012 season represent reductions in ex-vessel value per license (CPI adjusted) from the 2008-2011 average for both gear types (16.1% reduction for gillnets and 16.9% reduction for purse seines). The reductions reflect the smaller

abundances of chum forecast to return to these areas in 2012. The actual ex-vessel values will depend on the number of chum that do return to these areas in 2012, the price paid for chum during the season, and the ability of the fleets to catch the non-treaty share. While these projected values show a decrease in ex-vessel value per license from recent years, the similar percentage decrease for both fleets supports the conclusion that this season structure will promote the economic well-being and stability of the commercial fishing industry, within the constraints of a reduction in the number and pounds of chum available for harvest in 2012, as compared to recent years.

WDFW considered a number of proposals heard during the North of Falcon process to modify the schedule used for the 2008-2011 chum fishing seasons in 2012 for South Sound and Hood Canal.

1. Gillnet industry representatives requested several major changes to schedules in these fisheries. Those requests included conversion of the half-night ‘market’ openings in South Sound into full nights of fishing, addition of half-night market openings in Hood Canal, and adjusting the schedule to provide more ‘first starts’ in South Sound. These requests for increases in opportunity and adjustment to the recent rotation of first starts between gears each season were not supported by the department since no supporting rationale was presented and because the proposal was opposed by purse seine industry representatives. The department expressed concern that changes to the schedule for the South Sound or Hood Canal fisheries may have destabilizing effects on each other, with respect to the number of vessels participating, and potential catch rates. In addition, the department presented a continued concern of the Hood Canal Treaty Tribes, which is that current non-Indian commercial fishing effort in Hood Canal is too high and does not provide sufficient time for the Tribes to harvest their treaty share. Finally, the department is reluctant to allow significant expansion of Puget Sound gillnet opportunities beyond those provided by recent seasons without the collection of data demonstrating that release mortality rates and capture or encounter rates of non-target salmonid and non-salmonid bycatch species in gillnet salmon fisheries are low.
2. As mentioned previously, the gillnet industry requested switching their half-night market openings with full-night openings in the first four weeks of the season. They also requested extending all openings without overlapping purse seine openings in the morning hours until 9:00 AM. WDFW concluded that the change to market and full openings during those weeks was unlikely to cause a change in total catch rates of chum or bycatch across the season; it was also unlikely to cause significant shifts in effort between areas across the season. The extension

of open hours until 9:00 AM on four mornings could have a small effect on catch and bycatch levels, although existing data lack the fine-scale temporal resolution needed to estimate that effect. Because the effect of these changes was believed to be minimal, and because the purse seine industry agreed that the changes were acceptable for this season, WDFW modified the schedule used for the 2008-2011 chum fishing seasons to incorporate these requests for the 2012 season.

3. Industry requested that WDFW allow chum fishing in two areas that were closed in 2011. The portion of Area 10 east of the Alki Point to Four Mile Rock was closed to non-treaty chum fishing in 2011, as a result of negotiations with the Muckleshoot and Suquamish Tribes. WDFW was unable to reach agreement with the co-managers to re-open the area in 2012, so it will remain closed during non-treaty chum fisheries. Industry also requested that the portion of Area 12 south of a line projected 94° true from Hale Point to the light on the opposite shore, which was originally closed in the early 1990's, be reopened for chum fishing. WDFW was unable to reach agreement with the Hood Canal co-managers to reopen this area, so this area will also remain closed in 2012.

Although Puget Sound pink fisheries will not occur in 2012, gillnet industry representatives requested that gear restrictions be changed to allow 4.5" minimum mesh gillnets during future pink fisheries. WDFW explained that this change would require extensive monitoring to insure the effects of the change on bycatch of non-target species was known, and that due to limited monitoring resources, there would likely be requirements for participating fishers to pay for observers, similar to the Area 10 pink fishery, where 4.5" mesh was permitted in 2011. No gillnet fishers chose to participate in the 2011 Area 10 pink fishery, so no data were collected on impacts of the smaller mesh size. Although no change was made to the regulations, industry representatives expressed interest in pursuing such a change prior to the 2013 pink salmon season.

To conclude, season structures defined by the 2012 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 fisheries, 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 concludes that the projected result of the 2011 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 reduced runsizes forecast to return in some areas.

Response to Comments Received During Comment Period for WSR 12-05-112

Comment by Gendler & Mann: WDFW has proposed a commercial salmon fishing schedule that again restricts the gillnetter's allowable non-tribal harvest of chum to only 25 percent while permitting the purse seine fleet to harvest 75% of the allowable harvest in Areas 10 and 11. WDFW's decision constitutes disparate treatment between two types of fishermen within the same class, and treating one group in a class significantly different than another group in the same class without rational basis or a legitimate purpose violates gillnetters' constitutional rights.

WDFW has not restricted the percentage of harvest of chum salmon in Areas 10 and 11 to gillnet or purse seine gears. The 2012 schedule is not intended to achieve a catch share for the participating gear groups, or to restrict the catch percentage for either group. WDFW has constructed a fishing schedule based on fishing opportunity, and as described above, has estimated the likely catch share outcome of the season. The department projects that the 2012 schedule will result in catch percentages of approximately 25% for gillnets, and 75% for purse seines, for the Area 10/11 and 12/12B/12C fisheries combined. These percentages are consistent with recent and historic catch percentages adjusted for changes to fleet sizes over time, and are consistent with the objective of maintaining the economic well-being and stability of the industry.

WDFW acknowledges that the gillnet and purse seine groups are being treated differently, as the regulations provide additional fishing opportunity for the gillnet group relative to the purse seine group. WDFW has historically structured seasons for Puget Sound commercial salmon fisheries on the basis of equal fishing time, unless it determined that unequal time is more effective in achieving one or more management objectives, or that unequal time would facilitate consensus among State, tribal, and/or industry representatives. Providing equal fishing time for gillnet and purse seine groups in these fisheries in 2012 would significantly reduce the gillnet catch share, potentially destabilizing the industry. The 2012 schedule, which provides more opportunity for gillnets than purse seines, should result in catch percentages close to short- and long-term averages, and is more effective in achieving the objective of maintaining stability than a schedule providing equal amounts of fishing opportunity for both groups.

Comment by Gendler & Mann: WDFW's decision is arbitrary and capricious and inconsistent with objectives identified in the Concise Explanatory Statement (CES), particularly the claim that the proposed schedule maintains the economic well-being and stability of the industry, minimizes bycatch, and accords sufficient harvesting opportunity to each gear type.

This statement presumably refers to the objectives from the CES for the 2011 salmon seasons, as the statement for 2012 seasons had not been constructed at the time of the comment. However, the objectives for the 2012 season, shared with industry representatives during the North of Falcon season planning process, are identical to those described for the 2011 season. WDFW believes that the proposed schedule is consistent with the objectives described, for the reasons explained throughout this CES. The schedule is designed to provide a predictable season structure, to provide industry access to the full allowable harvest within the constraints of

conservation and Tribal-State co-management, and promote the stability and economic well-being of the industry.

Comment by Puget Sound Harvesters Association (PSHA): The proposed schedule is inconsistent with the Concise Explanatory Statement from which the regulations are derived in with respect to bycatch, economic well-being, and fair harvest opportunity. These factors point to a deteriorating and unstable economy for the gillnet fleet.

WDFW assumes that PSHA is also referencing the CES for 2011 salmon fisheries, since the statement for 2012 fisheries had not been written at the time of their comments. PSHA claims that the 2012 fisheries schedule is inconsistent with the bycatch management objective mentioned previously. They claim that the gillnet fleet outperforms the purse seine fleet with respect to incidental catch of coho and Chinook salmon, and reference a recent report authored by Stephen Matthews, and commissioned by the Puget Sound Salmon Commission, a commodities board tasked with promoting marketing of Puget Sound gillnet-caught salmon. WDFW appreciates the review of salmonid bycatch by Dr. Matthews. WDFW has four primary concerns regarding the analysis that suggest further work is necessary to accurately estimate bycatch mortalities of all non-target species in Puget Sound commercial salmon fisheries: 1) Additional data is available that was not analyzed or discussed in the document; 2) The analysis does not take into account species other than salmonids; 3) The analysis assumes that fish tickets are an accurate representation of gill net bycatch; and 4) The analysis does not address additional sources of fishing-induced mortality.

1) Additional data: In 2011, WDFW conducted on-board monitoring with trained observers of both purse seine and gill net vessels in Areas 10 and 11. The data collected by that monitoring suggests a different bycatch rate of Chinook than the Matthews analysis. While coho encounter rates were higher for purse seine, Chinook encounter rates were higher for gill net. The coho encounter rate was 4.4 coho/1000 chum for purse seines versus 0.6 coho/1000 chum for gill nets. The Chinook encounter rate was 0.1 Chinook/1000 chum for purse seines versus 2.8 Chinook/1000 chum for gill nets. Results will likely be different each year and in each area based on abundance of the target and non-target species. These results suggest that a comprehensive monitoring program that samples both gear types in the same manner and time is necessary to adequately monitor the bycatch mortalities. In Areas 10 and 11 in 2011, gill nets had a higher impact on Chinook per chum landed than purse seines.

2) Other species: As explained above, WFDW considered impacts of fisheries on other species. Fish species of concern in Puget Sound include non-target salmon species, including federal ESA listed Chinook salmon and steelhead, as well as federal ESA listed canary rockfish, bocaccio rockfish, and yelloweye rockfish. In addition, increasing attention has been focused on spiny dogfish, including a request by the Fish and Wildlife Commission in 2011 for an estimate of bycatch of dogfish in Puget Sound commercial salmon fisheries. Common wildlife species of concern in Puget Sound include federal ESA listed killer whales, stellar sealions and marbled murrelets, along with common murre, a state Species of Concern “candidate” species. In Areas 10 and 11, the dogfish encounter rate was 0.0 dogfish/1000 chum for purse seines versus 100.1 dogfish/1000 chum for gill nets. The seabird encounter rate was 1.0 seabirds/1000 chum for

purse seines versus 11.1 seabirds/1000 chum for gill nets. Over 70% of the seabird bycatch was common murre. WDFW is attempting to increase our monitoring efforts to accurately portray the bycatch of all species in commercial fisheries and ensure the conservation objectives are met for each.

3) Fish ticket assumption: Preliminary examination of the 2011 observer data has raised some questions about whether fish tickets can be used to accurately evaluate bycatch of non-target species. For both Areas 10/11 and 12/12B, observer data show a higher rate of Chinook/1000 chum than were reported on fish tickets. Area 10/11 rates were 2.8 versus 0.1 Chinook/1000 chum based on observers versus fish tickets, respectively. Area 12/12B rates were 1.0 versus 0.1 Chinook/1000 chum based on observers versus fish tickets, respectively. The cause of these discrepancies could include observer error or misidentification, spatial or temporal differences in sampling versus the fleet, buyer error or misidentification, or other issues. These discrepancies need further evaluation to assess whether the fish tickets can provide an accurate representation of bycatch. In the case of steelhead, fish tickets do not represent bycatch because they cannot be retained nor sold legally. On-board documentation of the bycatch is the only viable means of estimating steelhead bycatch. Most WDFW monitoring during the 2000-2011 time frame was conducted on purse seines. Very little data is available estimate the bycatch of steelhead on gillnets and contrast with purse seines.

4) Additional sources of mortality: Landed catch and release mortality are only two sources of mortality in commercial fisheries. The sum of all fishing induced mortalities includes: landed catch; illegal, misreported and unreported landings; discard mortality; escape mortality; drop out mortality; avoidance mortality; ghost fishing mortality; and habitat degradation mortality. Subsets of these mortalities often attributed to discard and escape mortality include the enhanced risk of predation and infection. A complete accounting of the fishing induced mortalities (and target species mortalities) in recreational, commercial and tribal fisheries is needed to calculate the total mortality associated with fishing. For example, anecdotal reports by treaty and non-treaty commercial fishers suggest that marine mammal predation of fish caught in commercial nets in Puget Sound can be extremely high. High enough in some cases that fishers have abandoned their fishing efforts until the marine mammals leave the fishing area. A complete mortality analysis is lacking in most fisheries planning and also in the Mathews document.

In summary, the analyses included in the Mathews document are part of a larger set of analyses and concerns shared by WDFW. A preliminary review of the 2011 WDFW observer data suggests alternate conclusions can be drawn and illustrates the need for more comprehensive monitoring and bycatch mortality estimation. The analyses presented in the paper along with other bycatch analyses and information was considered during the rule development process. WDFW plans to continue its evaluation of alternative sampling programs in 2012, to address the shortcomings in the available data. Using the best scientific information currently available, WDFW has applied regulations to minimize bycatch, while still allowing opportunity to harvest the non-treaty share of salmon species.

PSHA presented several graphs showing catch proportions, ex-vessel value per boat, and number of permits fished for gillnet and purse seine gear for recent years in South Sound and Hood Canal chum fisheries. Presumably these graphs were based on data supplied to the industry by WDFW, the same data included in Table 1. PSHA claimed that catch percentage data show a decline in gillnet catch percentage over time, to a low of 20% in 2011. However, GN catch proportion has actually shown a dramatic increase in recent years, from an average of 5% in 2001-2002 (immediately before the significant alteration of schedules in 2003), to an average of 24.4% in the most recent period (2008-2011).

PSHA claimed that the purse seine fleet has achieved greater economic prosperity than the gillnet fleet on a per vessel basis for each year from 2000-2011. While WDFW considers ex-vessel value per license as one indicator for assessing economic well-being of the industry, it is not clear how PSHA has defined or evaluated 'economic prosperity.' The economics of fishing gillnet vessels differs from the economics of fishing purse seine vessels, including differences in fuel costs, number of employees, maintenance cost of vessels and fishing gear, and cost of license purchases and renewals. Because of these differences, a direct comparison of ex-vessel value per vessel between gear types is not a valid comparison. In order to evaluate economic stability and well-being, WDFW has evaluated the change in ex-vessel value and ex-vessel value per license over time for each group individually. The ex-vessel value per license (CPI adjusted) for gillnets in 2011 was \$4,695, the second highest on record in the 39 years of data analyzed. While WDFW is projecting a decrease in ex-vessel value per license for both groups in 2012, this is due to a decrease in the number of harvestable chum salmon, a factor beyond WDFW's control. Total ex-vessel value shows similar increasing trends for gillnet and purse seine since 2003, indicating economic well-being for both gear types (Figure 3). All of these facts are inconsistent with PSHA's claims that the proposed schedule is inconsistent with the objective of maintaining the economic well-being and stability of the industry, and that the data show a deteriorating and unstable economy for the gillnet fleet.

Comments by Shannon Moore:

Areas 10/11 and 12/12B continue alternating first starts consistent with agreement between purse seine and gillnet groups.

The 2012 schedule does continue the recent year alternation of first openings for each gear group between weeks and years.

Areas 10/11 gillnet hours in weeks 42 and 44 are T,W with the fishery ending midnight Wednesday. This works well with the Canal. This is consistent with the fresh fish marketing day strategy the department has offered to accommodate for those needs. Reversing these days is unnecessary

During discussions that occurred after this written comment was provided, Mr. Moore indicated support for the change in the scheduling of market and full openings in Area 10/11. As explained previously, WDFW believes it is prudent to avoid annual or short-term adjustments to season schedules. However, because representatives of both gear groups agreed that this change

was acceptable, and because the change is unlikely to have destabilizing effects, WDFW supported the modification.

The Big Beef Conservation Zone should be relaxed this year to non-treaty commercial fishermen, given there are no Coho concerns and the fishery would be prosecuted during a chum directed fishery

This request was to open the Area 12 exclusion zone around Big Beef Creek to non-treaty commercial salmon fishing. This zone is within the 1,000 foot closure on the eastern shore of areas 12, 12B and 12C, which was in place throughout the 1990's to provide protection for Hood Canal coho. While coho status in Hood Canal has improved since the 1990's, this closure was identified as a subarea 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 marbled murrelets in Puget Sound commercial and recreational salmon fisheries. This area will remain closed to protect ESA-listed marbled murrelets.

Close the Hales Pass portion of area 7B during the last 2 weeks of September instead of the beginning of September.

The closure of the Hales Pass portion of area 7B to gillnet fisheries in the first three weeks of September is due to the fisheries impacts on non-local coho. Based on genetic data collected during past fisheries in the area, all of the impacts on the primary stock of concern (Upper Fraser Coho) occur during the first three weeks of September. Closing Hales Pass during only the last two weeks of September would not decrease the impacts on that stock sufficiently to meet conservation objectives. To help offset this closure and to allow a greater harvest of the non-treaty portion of Bellingham Bay coho, WDFW has provided additional gillnet fishing opportunity Area 7B during early September. This action is similar to that taken in 2011, when Hale's Pass was closed for the entire month of September.

Request to open areas 8A and 8D to coho beginning week 37 to remain consistent with opening the fishery the second Monday in September. Opening the next week is late and the fish pass through the area before the fishery.

In recent years, the coho fishery in Area 8D has opened during the third week in September (week 38 in 2012). Historically 80% of the run passes through in 8D between the third week in September and the second week in November. The department is concerned that opening this fishery earlier will result in increased impacts on non-target stocks and species. In 2011, the coho fishery in Area 8A was shifted one week earlier than in previous years, to provide protection for chum salmon arriving later in the season. The fishery will open in the earlier week again in 2012, to protect chum salmon, but the department did not support advancing it further, due to potential increased impacts on non-target stocks and species.

Minimum gillnet mesh requirements should remain at 6.25 inches for chum fish. Reducing the mesh size in areas 10/11 will increase the harvest of late coho and blackmouth Chinook. We need to err on the side of conservation.

As explained above, industry was not supportive of a change to 6.25” mesh for fall chum fisheries, so this was not pursued.

Response to Comments Received During Comment Period for WSR 12-11-128

Comment by Gendler & Mann: Asked WDFW to consider additional information in its review of the 2012 Puget Sound Commercial Salmon Rules.

Gendler & Mann made no specific comment in their letter to WDFW dated June 15, 2012, but asked the department to consider additional information. Four pieces of information were provided with that letter:

1. The report titled “Salmonid Bycatch in Targeted Chum Salmon Fisheries of Puget Sound,” by Steve Matthews.
2. WDFW’s March 19, 2012 response to Public Records Request #12143, which contained bycatch observation data from 2011 commercial fisheries in catch areas 10, 11, and 12.
3. WDFW’s October 2, 2011 response to Public Records Request #11358, which contained all of the documents from the rule making file used in the development of the CES for 2011 Puget Sound commercial salmon fisheries.
4. Additional economic information provided by the Puget Sound Harvesters on March 26, 2012.

Each of these pieces of information was available to WDFW prior to the publication of WSR 12-11-002, and was considered in the development of the rules as published. Specific discussion of items 1 and 4 were provided above. The bycatch data referenced in item 2 was included in the projections of bycatch encounters likely to be seen during the 2012 season. Item 3 contained hundreds of documents, including scientific reports on bycatch and mortality rates in fisheries, management plans and federal biological opinions covering various fisheries, meeting notes, minutes and correspondence from the 2011 North of Falcon process, and data and analysis used during development of 2011 Puget Sound commercial fisheries. The reports on bycatch and mortality rates represent the scientific basis for projecting impacts of fisheries during the rule development process. The management plans and biological opinions were considered, as the fishery rules developed must meet constraints identified in those documents. The meeting notes, minutes, and correspondence from 2011 provided background knowledge from the previous year’s public process, but identical products from the 2012 North of Falcon process were used directly in developing the 2012 rules. The data and analysis from the 2011 file were updated with data collected in 2012, and were presented to industry and used during development of the 2012 rules. In conclusion, the information provided by Gendler & Mann was considered during the development of the rules as published in WSR 12-11-002.

Conclusion

WDFW has considered all the facts and circumstances surrounding the 2012 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 2012 Puget Sound commercial salmon fishing regulations comply with its statutory mandate and are consistent with WDFW's management objectives for these fisheries.

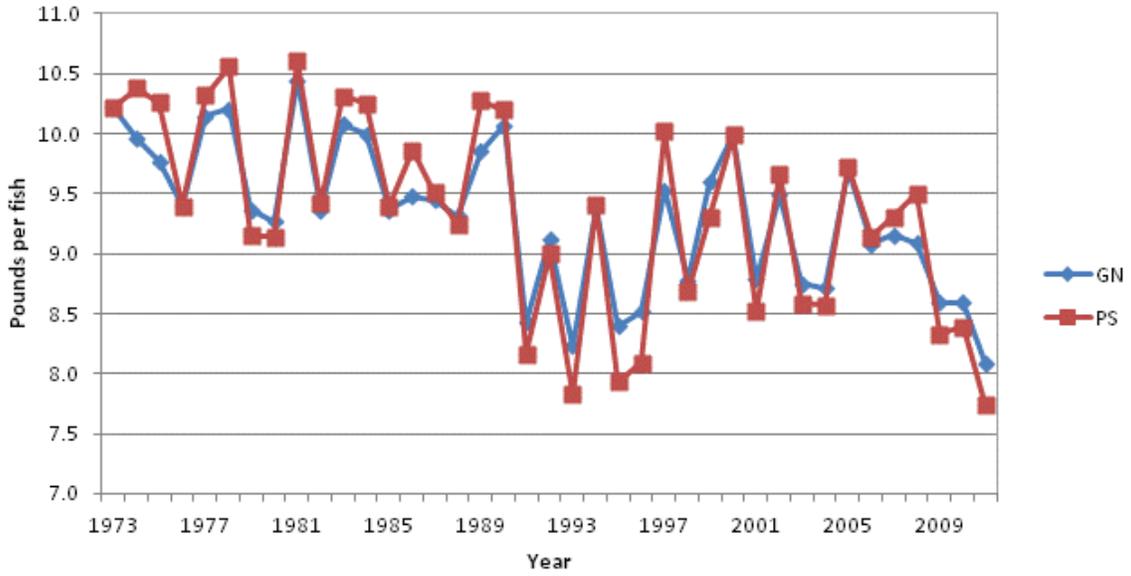


Figure 1. Mean weight of chum salmon caught in South Puget Sound commercial salmon fisheries, 1973-2011.

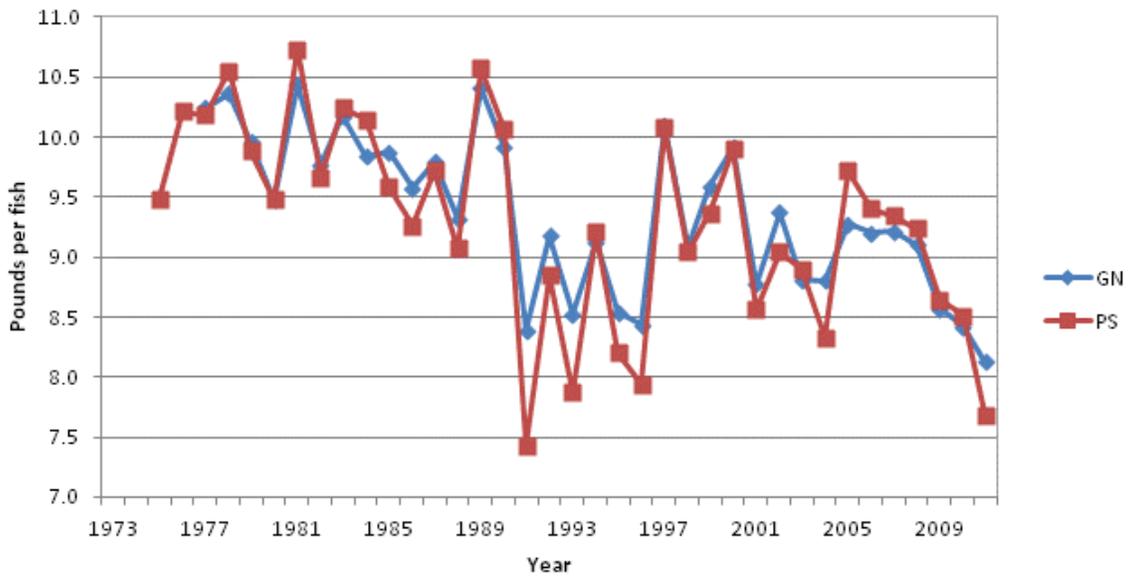


Figure 2. Mean weight of chum salmon caught in Hood Canal commercial salmon fisheries, 1975-2011.

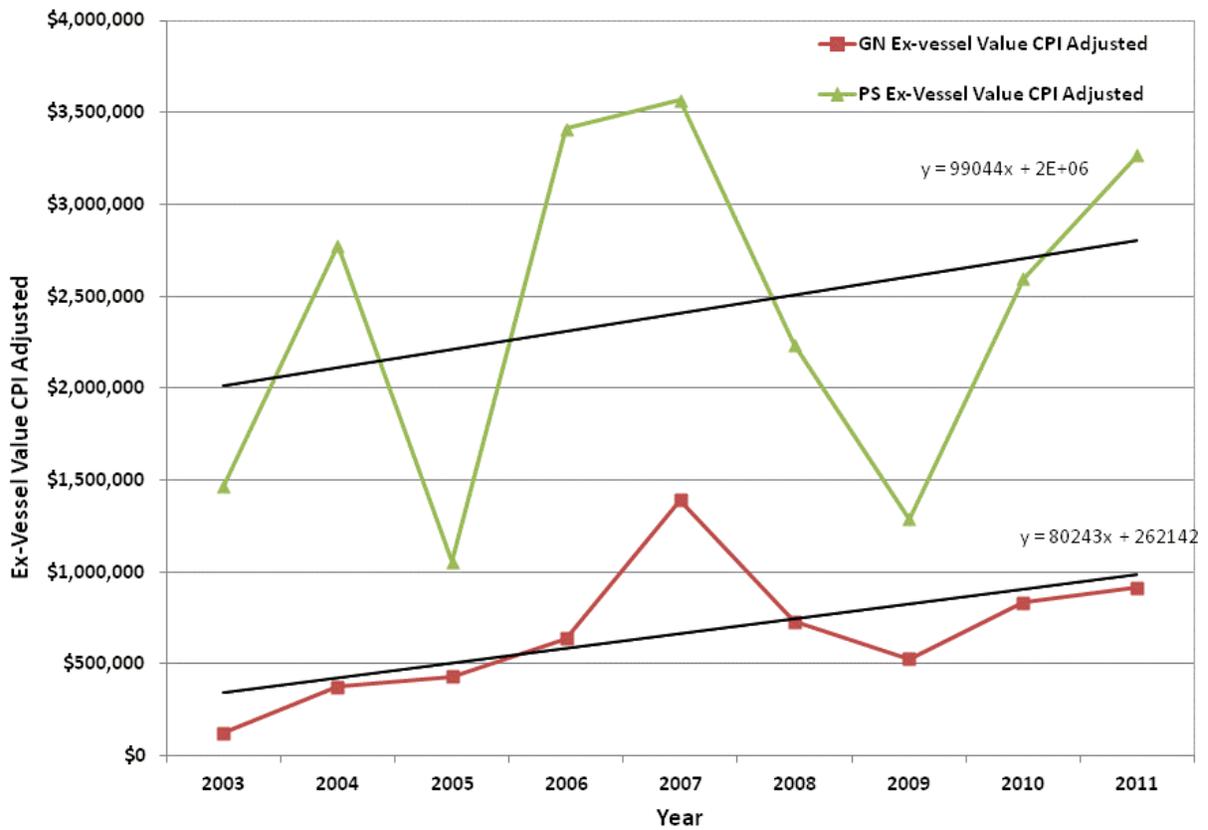


Figure 3. Trends in annual, CPI-adjusted ex-vessel value of gillnet and purse seine chum salmon landings for South Sound (Areas 10&11) and Hood Canal (Area 12), 2003 – 2011.

Table 1. Chum catch, licenses and economic values for gillnet and purse seine, in the combined South Sound and Hood Canal fisheries, 1973-2011.

Year	CPI	Combined	Combined	Combined	GN Licenses	GN Catch	GN	GN Ex-vessel Value	GN Ex-vessel	Purse Seine Licenses	PS Catch	PS Proportion of Catch	PS Ex-Vessel Value	PS Ex-Vessel
		Gears Total Catch	Gears Ex-vessel Value	Gears Ex-vessel Value CPI adjusted			Proportion of catch		Value Adjusted					Value Adjusted
1973	4.92	93,264	\$734,961	\$3,616,011	1,303	59,793	0.64	\$472,419	\$2,324,303	320	33,471	0.36	\$262,542	\$1,291,707
1974	4.43	15,353	\$78,322	\$346,965	1,990	2,023	0.13	\$10,399	\$46,069	137	13,330	0.87	\$67,923	\$300,897
1975	4.06	6,534	\$49,699	\$201,777	1,659	3,017	0.46	\$20,410	\$82,865	385	3,517	0.54	\$29,289	\$118,912
1976	3.84	119,743	\$1,107,754	\$4,253,777	1,536	65,385	0.55	\$644,114	\$2,473,399	376	54,358	0.45	\$463,640	\$1,780,378
1977	3.6	146,509	\$1,471,793	\$5,298,456	1,517	114,444	0.78	\$1,189,141	\$4,280,906	393	32,065	0.22	\$282,653	\$1,017,550
1978	3.35	291,755	\$3,110,616	\$10,420,562	1,532	166,416	0.57	\$2,132,816	\$7,144,932	402	125,339	0.43	\$977,800	\$3,275,630
1979	3.01	13,063	\$87,840	\$264,399	1,501	6,901	0.53	\$54,040	\$162,659	402	6,162	0.47	\$33,800	\$101,739
1980	2.65	192,116	\$1,029,828	\$2,729,043	1,487	78,977	0.41	\$513,517	\$1,360,819	398	113,139	0.59	\$516,311	\$1,368,224
1981	2.4	123,688	\$1,113,134	\$2,671,521	1,450	63,428	0.51	\$587,612	\$1,410,268	396	60,260	0.49	\$525,522	\$1,261,253
1982	2.26	200,191	\$1,144,347	\$2,586,225	1,420	70,801	0.35	\$425,611	\$961,881	390	129,390	0.65	\$718,736	\$1,624,344
1983	2.19	128,969	\$1,039,556	\$2,276,629	1,374	46,097	0.36	\$376,604	\$824,762	383	82,872	0.64	\$662,953	\$1,451,866
1984	2.1	266,228	\$2,016,143	\$4,233,901	1,259	94,041	0.35	\$708,422	\$1,487,686	367	172,187	0.65	\$1,307,722	\$2,746,215
1985	2.03	184,764	\$935,630	\$1,899,328	1,196	53,811	0.29	\$335,146	\$680,347	349	130,953	0.71	\$600,483	\$1,218,981
1986	1.99	276,814	\$1,141,165	\$2,270,918	1,200	71,595	0.26	\$301,284	\$599,555	345	205,219	0.74	\$839,881	\$1,671,363
1987	1.92	466,208	\$6,608,284	\$12,687,905	1,148	105,651	0.23	\$1,760,755	\$3,380,650	341	360,557	0.77	\$4,847,529	\$9,307,255
1988	1.85	471,548	\$3,651,358	\$6,755,012	1,142	153,758	0.33	\$1,223,330	\$2,263,160	342	317,790	0.67	\$2,428,028	\$4,491,852
1989	1.76	274,858	\$2,430,410	\$4,277,522	1,152	95,913	0.35	\$828,325	\$1,457,851	341	178,945	0.65	\$1,602,086	\$2,819,671
1990	1.67	261,821	\$2,270,850	\$3,792,320	1,148	89,200	0.34	\$776,463	\$1,296,693	337	172,621	0.66	\$1,494,388	\$2,495,627
1991	1.6	307,908	\$1,481,976	\$2,371,161	1,132	77,835	0.25	\$423,123	\$676,996	330	230,073	0.75	\$1,058,853	\$1,694,165
1992	1.56	529,520	\$2,461,390	\$3,839,769	1,118	173,808	0.33	\$833,282	\$1,299,919	327	355,712	0.67	\$1,628,109	\$2,539,849
1993	1.51	402,089	\$2,316,092	\$3,497,299	1,083	125,238	0.31	\$757,658	\$1,144,064	318	276,851	0.69	\$1,558,434	\$2,353,235
1994	1.47	386,967	\$1,104,806	\$1,624,065	1,042	64,465	0.17	\$181,819	\$267,274	306	322,502	0.83	\$922,987	\$1,356,791
1995	1.43	288,538	\$809,434	\$1,157,490	966	55,178	0.19	\$150,667	\$215,454	297	233,360	0.81	\$658,767	\$942,037
1996	1.39	490,370	\$786,358	\$1,093,038	887	74,319	0.15	\$114,229	\$158,779	292	416,051	0.85	\$672,129	\$934,259
1997	1.36	209,837	\$856,313	\$1,164,585	872	19,488	0.09	\$74,057	\$100,718	290	190,349	0.91	\$782,255	\$1,063,867
1998	1.34	414,133	\$682,627	\$914,720	820	52,035	0.13	\$86,581	\$116,019	276	362,098	0.87	\$596,046	\$798,701
1999	1.31	90,471	\$317,261	\$415,612	682	18,782	0.21	\$63,843	\$83,635	262	71,689	0.79	\$253,418	\$331,978
2000	1.27	123,932	\$627,545	\$796,982	679	19,329	0.16	\$92,279	\$117,194	262	104,603	0.84	\$535,266	\$679,787
2001	1.23	679,244	\$1,490,595	\$1,833,432	359	48,505	0.07	\$100,715	\$123,880	122	630,739	0.93	\$1,389,880	\$1,709,552
2002	1.21	788,468	\$1,317,428	\$1,594,087	215	29,534	0.04	\$48,076	\$58,172	84	758,934	0.96	\$1,269,351	\$1,535,915
2003	1.19	713,597	\$1,339,056	\$1,593,476	208	59,043	0.08	\$104,987	\$124,935	83	654,554	0.92	\$1,234,068	\$1,468,541
2004	1.16	1,047,080	\$2,718,389	\$3,153,332	204	113,781	0.11	\$324,818	\$376,789	81	933,299	0.89	\$2,393,572	\$2,776,543
2005	1.12	318,802	\$1,327,792	\$1,487,127	202	94,944	0.30	\$386,887	\$433,314	81	223,858	0.70	\$940,905	\$1,053,813
2006	1.08	695,849	\$3,748,099	\$4,047,946	198	116,160	0.17	\$590,702	\$637,958	75	579,689	0.83	\$3,157,397	\$3,409,989
2007	1.05	598,376	\$4,719,458	\$4,955,431	198	169,933	0.28	\$1,324,268	\$1,390,481	75	428,443	0.72	\$3,395,191	\$3,564,950
2008	1.01	375,857	\$2,937,003	\$2,966,373	196	92,454	0.25	\$721,898	\$729,117	75	283,403	0.75	\$2,215,105	\$2,237,256
2009	1.02	278,064	\$1,780,429	\$1,816,037	195	78,693	0.28	\$517,907	\$528,265	75	199,371	0.72	\$1,262,522	\$1,287,772
2010	1	404,366	\$3,429,154	\$3,429,154	195	98,057	0.24	\$833,760	\$833,760	75	306,309	0.76	\$2,595,393	\$2,595,393
2011	0.97	431,128	\$4,311,189	\$4,181,853	195	88,405	0.21	\$943,899	\$915,582	75	342,723	0.79	\$3,367,289	\$3,266,270
1973-2002 mean		274,830	\$1,475,784	\$3,029,484	1,162	69,992	0.32	\$509,558	\$1,220,030	319	204,838	0.68	\$966,226	\$1,809,453
2008-2011 mean		372,354	\$3,114,444	3,098,354	195	89,402	0.24	\$754,366	\$751,681	75	282,952	0.76	\$2,360,077	\$2,346,673