

Concise Explanatory Statement

Puget Sound Commercial Salmon Regulations for 2017

This Concise Explanatory Statement (CES) describes the Washington Department of Fish and Wildlife's (WDFW) reasons for adopting the 2017 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. As part of WDFW's recodification and simplification of WACs, filed as Washington State Register (WSR) 17-05-112, the WAC sections in this rule making are recodified to 220-354-080, -120, -180, -160, and -210, respectively.

Rule Development Process

The 2017 annual public process for defining salmon fishery rules, known as North of Falcon, began on January 4, 2017 in a meeting with the Puget Sound commercial industry to review the 2016 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 2016 Puget Sound commercial salmon fisheries, discussed outcomes of the 2016 season, and began discussions on the upcoming 2017 season.

The next North of Falcon meeting was held in the General Administration Building in Olympia on February 28, 2017. At this meeting WDFW presented and discussed the 2017 preseason forecasts of salmon abundance with interested stakeholders. Implications of the forecasts and 2017 season planning specific to Puget Sound commercial salmon fisheries were discussed in greater detail in the Puget Sound commercial break-out session. Additional public meetings were held on March 17th, March 29th, and April 4th. During these meetings WDFW gathered input on structuring fishing seasons, possible rule changes and provided the public with information on the status of the 2017 planning process. Formal rule-making hearings were held on April 7th and July 25th to provide an opportunity for comments on the proposed rules as published in the Washington State Register. 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 2017 commercial salmon season regulations as Washington State Register (WSR) 17-06-077 on March 1, 2017. This filing included changes to WAC 220-47-307, -311, -401, -411 and -428. Subsequent 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 17-13-075, was published in the WSR on June 16, 2017, 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 17-13-075 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.

Leading up to and during the 2017 North of Falcon season planning process, the tribal co-managers and WDFW conducted technical meetings and policy level discussions to develop agreement on conservation objectives, run-size forecasts, estimates of the allowable harvest, and 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 2017 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 1st and June 16th, respectively. Responses to those comments are summarized in the "Response to Comments Received" section of this document.

Rationale for Adoption of Rules

Regulations for the 2017 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 and have remained consistent over recent years:

- 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)

While taking these objectives into account, WDFW considered all the facts and circumstances surrounding setting the 2017 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* and National Oceanic and Atmospheric Administration (NOAA Fisheries) requiring an agreed-to fishery package to obtain ESA authorization for 2017 non-tribal Puget Sound salmon fisheries.

WDFW concludes that the adopted 2017 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 for Puget Sound commercial salmon 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 *2017-2018 North of Falcon* instructs the department to manage fisheries to minimize mortalities on non-target species and stocks. In structuring rules for the 2017 commercial salmon seasons, WDFW considered impacts of fisheries on non-target species; including Endangered Species Act (ESA) listed Puget Sound Chinook salmon, 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 recommendations of tribal and state technical staff.

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. In accordance with the best available science, WDFW addresses 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 marine mammal depredation. 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 (NMFS), providing ESA coverage for Puget Sound Fisheries under Limit 6 of the ESA 4(d) rule.

Additionally, the department's regulations for Puget Sound commercial salmon fisheries incorporate gear, time, and area restrictions to minimize bycatch encounters with summer chum originating from Hood Canal and the Eastern Strait of Juan de Fuca. In March of 1999, NMFS determined that the summer chum originating from Hood Canal and the Strait of Juan de Fuca represented an Evolutionarily Significant Unit (ESU), and formally listed these fish under the Endangered Species Act (ESA) as a threatened species. In April 2000 the state and tribal co-managers published a summer chum management plan, approved by NMFS (*Summer Chum Salmon Conservation Initiative - An Implementation Plan to Recover Summer Chum in the Hood Canal and Strait of Juan de Fuca Region*), which contains base conservation regimes (BCR) for fisheries with specific guidelines by area, timing gear type, and summer chum forecasts combined with in-season escapement numbers. For example in Area 12A, under the BCR guidelines, beach seine fisheries cannot begin prior to August 21st, while gillnet fisheries cannot begin prior to September 1st. Also the BCR guidelines stipulate that these fisheries cannot open until at least 1,500 chum have been counted in the river, and can open one day per week if fewer than 2,500 chum have been counted in river. Further, non-treaty gillnets can only open if tribal fisheries are open, and gillnets must release chum by cutting the mesh ensnaring the fish.

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, summer chum salmon, and steelhead, as well as ESA-listed bocaccio and yelloweye rockfish. Other wildlife species of concern in Puget Sound include federal ESA-listed killer whales and marbled murrelets, along with common murre, a state Species of Concern and tufted puffin, a state listed Endangered Species. For these species, data collected from purse seine observations 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 injuring or killing ESA-listed marbled murrelets (*USFWS Biological Opinion on the the proposed 2017-2036 Puget Sound Salmon Fisheries and its effects on marbled murrelet*, 2017). In 2017 USFWS issued a new joint Biological Opinion on marbled murrelets that covers both state and tribal Puget Sound salmon fisheries and provides for incidental take in these fisheries

through 2037. In its Opinion, USFWS used non-treaty commercial effort data from 2000-2015 to extrapolate expected effort and impacts of the fishery to marbled murrelets during the proposed action. USFWS concluded that the proposed Puget Sound salmon fisheries are not likely to have an appreciable influence on the numbers of marbled murrelets when taking into account cumulative effects on the species. However, should any substantial increases in fishing effort occur WDFW is concerned that take limits could be exceeded and re-consultation on Puget Sound salmon fisheries would be triggered. Reconsultation of the current Biological Opinion for marbled murrelets could include further restrictions on Puget Sound commercial fisheries. Therefore, WDFW is particularly cautious about expanding fishing time.

The adopted regulations for the 2017 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.

Marine mammal injuries and mortalities in Puget Sound net fisheries are another concern. The federal Marine Mammal Protection Act (MMPA) requires the NOAA Fisheries to address the impacts of all fisheries on individual marine mammal stocks and to classify fisheries into one of three categories based on their risk of “incidental take” of marine mammals. All fisheries are required to report marine mammal injuries or mortalities to the NOAA Fisheries within 48 hours of the event. 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 injuries or 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 Fisheries and carry it on board the vessel during any commercial fishing operations. Currently NOAA Fisheries cites incidental takes of harbor porpoises in this fishery as being the driver for the Category II designation of the gillnet fishery. NOAA Fisheries final rule, providing take authorization for the 2017 Puget Sound commercial salmon fisheries, was published in the Federal Register on January 12, 2017.

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 as have concerns over their impacts on ESA-listed rockfish species in Puget Sound. The Northwest Straits Foundation (NWSF) reported removing 5,785 pieces of derelict fishing nets, of which a large majority have been gillnets, from Puget Sound, the San Juan Islands, and the Strait of Juan de Fuca between 2002 and 2016. 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 (RCW 77.12.870) requiring commercial fishermen to report any gear they abandon to WFDW within 24 hours, so that the gear can be located and removed as soon as possible.

In summary, WDFW concludes that the adopted rules and regulations for the 2017 Puget Sound commercial salmon seasons are reasonably constructed to meet the objective to minimize bycatch overall. However, with respect to non-target salmon species and stocks, seabirds, and other non-salmon species, continued and in certain cases increased monitoring is needed to verify that bycatch is indeed minimized. As new scientifically reliable information becomes available in the future, WDFW will adjust the fisheries as necessary to continue to protect 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, although data on ESA-listed species and other species of concern are collected when possible. 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.

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 are needed from purse seine vessels to estimate the number of Chinook and coho salmon 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 as gillnets are required to retain Chinook and coho. From 2011-2014, 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, collecting data on gillnets required the department 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 during this time 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, Puget Sound steelhead, and species of Puget Sound rockfish. Commercial fishers are prohibited from landing some of these species in any fishery (e.g. steelhead) and therefore, these fish are not reported on fish tickets. Consequently, WDFW has been unable to estimate bycatch in gillnets for some 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. 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 2017 reflect expected abundance of target salmon species and stocks, based on pre-season 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-treaty total allowable catch will be adjusted accordingly and may result in increasing non-treaty 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-treaty 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 and other factors which WDFW cannot control. These include but are not limited to: abundance of salmon in the fishery, the amount of salmon available from fisheries in other areas such as Alaska, the amount of product stored from previous years, competition between buyers, quality of the fish, and prices of farmed salmon. WDFW also cannot control the effort of fishers who hold limited entry Puget Sound commercial salmon permits (195 gillnet, 75 purse seine, and 11 reef net). 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 of fish and/or harvest opportunities in other Puget Sound salmon 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.

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*. ESA requirements for affected listed species must also be factored into fishery impact modeling and state-tribal negotiations. These negotiations are complex and have many different components that reach far beyond the scope of Puget Sound commercial salmon fisheries. 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 need to make compromises in order to achieve successful 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. 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. 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.

The rationale for how the 2017 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 2017 schedule is similar to recent years, and per the Summer Chum Salmon Conservation Initiative (SCSCI), the fishery will open on September 21st. The fishery will be open from Monday through Friday and close on weekends.

Area 7/7A (chum) – Since 2014, the U.S. has harvested its full share of Area 7/7A chum available under the Pacific Salmon Treaty. These were the first years the US harvested its full share of chum since the renegotiation of the chum annex of the Pacific Salmon Treaty in 2008. In order to provide opportunity for the non-treaty fleet to harvest its share, an agreement similar to recent years was negotiated with the tribes 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 non-treaty fleet will be open on October 10th, 11th, 14th and 15th. The remaining schedule is dependent on the non-treaty catch in those first four days. The 2017 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 has been adjusted for calendar dates and management periods and is similar to recent years. There were several requests from industry to keep area 7C Chinook open for an additional week in September. The department has adjusted the 7C schedule to allow it to remain open for an additional week in September.

Area 8 (pink) – Area 8 pink fisheries are closed for 2017. The 2017 Skagit River pink forecast is to not meet escapement goals for the system. Additionally low forecasts of Skagit coho created concerns about not reaching coho escapement goals even without Area 8

commercial pink fisheries. With no pre-terminal net fisheries, WDFW and the co-managers will have no ability to update the run size in marine areas.

Area 8A (pink) – Area 8A pink fisheries are closed for 2017. Stillaguamish pinks are forecasted to not meet escapement goals and Snohomish pinks are forecasted to only have 20,000 pinks available for non-tribal harvest. Additionally, Stillaguamish coho are a concern (see below).

Area 8A (coho) – Similar to 2016, due low forecasts of coho in 2017 and concerns about not reaching escapement goals for Stillaguamish coho, the 8A fishery is closed to protect these stocks. With no pre-terminal net fisheries, WDFW and the co-managers will have no ability to update the run size in marine areas.

Area 8D (coho and chum) – The 2017 Area 8D coho and chum schedules are similar to schedules in years prior to the closure of this area in 2016. The schedule does differ slightly from recent years in that the days per week scheduled for gillnets during coho fisheries was reduced from five days per week to three days per week due to concerns about increased effort in the area following the substantial tribal coho catch in 2016.

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. The opening date of this fishery mirrors the Area 9A tribal fishery.

Area 10 (pink) – The limited participation Area 10 pink fishery is structured similar to recent pink years with five boats of each gear type, required use of recovery boxes, mandatory department observers on vessels, and limited soak times (90 minutes) for gillnets. The fishery will close when an estimated 400 Chinook mortalities are reached. As in 2015, based on input from the industry, the eastern shoreline north of the Shilshole Bay closure area will be closed to purse seines with the intent of reducing the number of Chinook encountered in the fishery.

Area 12A (coho) – The fishery is structured similar to 2016, with beach seines opening on Monday, August 21st, the earliest weekday date permitted under the SCSCI. Skiff gillnet openings may be scheduled later in the season pending summer chum escapement numbers and discussions with co-managers.

Area 12C (Chinook) – WDFW has implemented a beach seine fishery in the Hoodspout Hatchery Zone of Area 12C to target a portion of the non-treaty share of hatchery Chinook returning to Hood Canal. The fishery is limited to those who have obtained an Emerging Commercial Fishery license and have been issued a Puget Sound Beach Seine permit by WDFW. Total landed catch for this fishery will not exceed 5,000 Chinook. The fishery is scheduled for two days per week (Mondays and Wednesdays) from July 31st through September 6th. Per the SCSCI, all chum salmon must be released.

Areas 10/11 and 12/12B/12C (chum) – 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 2016. Ex-vessel landing value data were adjusted according to the Gross Domestic Product: Implicit Price Deflator (GDPDEF) 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 2003-2016 (the time period when extra fishing time was provided for gillnet gear) and also for the period 2008-2016 (the most recent time period with relatively 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, 2008-2016, 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, and 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 2003 the Hood Canal and South Sound chum fishery schedules were significantly altered 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, 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 as gillnet fishers indicated this would enhance their ability to direct retail market their catch. 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. From 2008 to 2013, the fishing schedules for chum fishing in South Puget Sound and Hood Canal provided consistent ratios of gillnet to purse seine fishing time, with small changes made annually to provide variation in first fishing opportunities within areas and weeks for each fishing group. In 2014, WDFW adjusted the fishing schedules relative to schedules from 2008-2013 by adding additional gillnet time to respond to further declines in gillnet industry landings.

In 2013, both gear groups caught significantly larger numbers of fish and had higher ex-vessel values than projected pre-season (primarily due to a substantially higher than forecasted return of chum salmon in Hood Canal), and the proportions of catch were markedly different than projected, with 13% of the catch by gillnets and 87% by purse seines. WDFW questioned industry extensively for plausible explanations for the deviation in catch proportions in the sixth year of implementation 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. 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, WDFW made changes to the 2014 schedule that included expanding “market nights” in Areas 10 and 11 to full nights, adding 33 hours to the fishery. The department projected that this fishing schedule would result in gillnets catching 25% and purse seines catching 75% during the 2014 season. Analysis of actual catch data in 2014 showed that catch proportions were very close to the predicted outcome, with 24% of the total catch by gillnets and 76% by purse seines.

Beginning in 2014, negotiations with tribal co-managers led to additional changes relative to the 2008-2013 schedule, such as the addition of fishing days in week 42 and moving one day of purse seine fishing from week 44 to week 42 to limit purse seine openings to one day per week during the peak of the fishery. Prior to 2014, the schedule provided two days for non-treaty purse seines and two days for non-treaty gillnets in both Hood Canal and South Sound during week 44 and no fishing days in week 42. In 2016,

negotiations with tribal co-managers and the need to reach an agreement on fishing schedules to obtain an ESA take permit for Chinook from NOAA Fisheries led to further changes in the schedule. For 2016 WDFW agreed to remove only one day of purse seine fishing in week 44 but did not add that day back into week 42 and did not schedule any gillnet fishing days in week 42. In addition, for 2016, WDFW agreed to schedule only one purse seine day per week during weeks 45 and 46.

For 2014 and 2015, WDFW used estimates of chum catch per hour by gear type to predict catch proportions of 25% for gillnets and 75% for purse seines for Hood Canal and South Sound chum fisheries combined. In 2014 the resulting actual catch proportions were very similar to projections, at 24% for gillnets and 76% for purse seines. However, in 2015 and 2016 a similar fishing schedule resulted in very different catch proportions of 31% and 32% gillnet and 69% and 68% purse seine, respectively. The department can only speculate on the cause of such changes in the catch proportions for 2015 and 2016. During the 2015 and 2016 chum seasons, WDFW discussed concerns over possible bias in the in-season update models due to changes in fishing schedules with tribal co-managers but could not get agreement that the runsize was higher than the models were predicting. Without tribal agreement on an increased runsize, the non-treaty fleet had to close or severely limit the fishery during what is considered a peak week of the fishery. Due to the inherent differences in how purse seines and gillnets operate, seines tend to catch relatively larger numbers of fish at the peak of the run. Therefore, closing the fishery during a peak week may have contributed to the differences in percentages of catch between gear groups seen in 2015 and 2016. In response to this the department removed one day of gillnet fishing in the first week of the fishery.

As in the previous three years, for the 2017 fishery WDFW proposed the same purse seine schedule as 2008-2013 with purse seines fishing two days per week in week 44. During pre-season negotiations, Hood Canal tribes again expressed the need for treaty fishers to participate unimpeded by non-treaty effort during the peak of the chum run and that limiting non-treaty purse seine fishing to one day per week provides the best opportunity for tribal fishers. WDFW does not concur with the tribes that two days of purse seine fishing in one week impedes the tribal fishery however, in order to reach agreement with the Hood Canal tribes for an overall fishing package, WDFW agreed to move one day of purse seining in week 44 to week 42. In addition WDFW scheduled two days of purse seine fishing in week 45, which is earlier in the season compared to the 2014-2016 schedules. Compared to recent years WDFW also removed a day of gillnet fishing in week 42. Beginning in 2014 WDFW had added two days of fishing in week 42 when it was open for purse seines. For 2017 this has been reduced to only one day.

The tribes made additional requests, such as limiting effort and net size in the fishery, and continuing the two-mile area closure south of the Hood Canal Bridge. Again, WDFW

does not concur that fishing near the bridge impedes the tribal fishery, the department agreed to continue the two-mile closure south of the Hood Canal Bridge for purse seines in weeks 43 and 44. When the bridge areas is closed, the Hazel Point area is open. As part of the overall state-tribal negotiation of Hood Canal fisheries, the tribes also agreed to the opening of recreational fisheries for pink and coho salmon during July and August north of Ayock Point in Hood Canal, which had not been open in over 20 years.

In 2017, WDFW expects to manage the chum fishery in-season and modify the schedule dependent on the run size to allow for the full harvest of the non-treaty share in a manner that is most beneficial to all non-treaty commercial fishers. With similar schedules and the deviation from 2014 to 2015 and 2016, it is difficult to project what the catch will be based on the 2017 schedule, but WDFW provides an analysis below that can help inform such projections.

Based on 2017 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 is estimated at 365,600 fish or 3.2 million pounds (based on an average weight of 8.7 pounds per fish for 2008-2016). In 2016 gillnet and purse seine fishers were paid an average of \$0.88 per pound for all chum harvested by the non-treaty fleets in South Sound and Hood Canal. If the entire non-treaty share, as projected pre-season, is harvested, using the 2016 average price per pound results in an estimated ex-vessel value of \$2.8 million for 2017. It is reasonable to expect that catch and ex-vessel value totals will be split between gears by proportions similar to those seen since 2008 with the exception of the additional gillnet fishing time with the change of market to full nights and the removal of one day of seining during the peak of the fishery that began in 2014. 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%, respectively (Table 1).

From the period of 2014 to 2016, the gillnet fleet in Hood Canal and South Sound averaged 457 chum per hour while the purse seine fleet averaged 2,940 chum per hour. Using the catch per hour averages to account for the changes in fishing schedules that began in 2014, a catch of 90,833 for gillnets and an expected catch of 274,767 for purse seines. Using the 2008-2016 average landed chum weight of 8.7 pounds, these catch estimates equate to an ex-vessel value of \$697,547 or \$3,577 per gillnet license, and an ex-vessel value of \$2,110,055 or \$28,134 per purse seine license (Figure 1 and Figure 2). These values compare to a GDPDEF-adjusted average of \$885 per gillnet license and \$6,004 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 estimated 2017 ex-vessel values are within the range seen from 2008-2016 and thus the anticipated outcome is similar to recent years.

To conclude, season structures defined by the 2017 Puget Sound commercial salmon rules and 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 routinely stated that consistent annual fishing schedules contribute to industry stability, and that there are factors beyond WDFW's control contributing to instability. For 2017 WDFW anticipates catch proportions of total chum for gillnets and purse seines will be similar to the 2008-2016 average, at 25% and 75%, respectively. This expected outcome is very close to the historic averages of 26% and 74% for gillnets and purse seines. WDFW concludes that the projected result of the 2017 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 2017.

Response to Comments Received During Comment Period for WSR 17-06-077

Comment by Shannon Moore: The Area 7/7A chum fishery should start no later than October 10. Additionally the US share of chum should be close to the previous range of 180,000 chum.

This comment relates mainly to the current negotiations of the Pacific Salmon Treaty's (PST) chum annex which is not part of this rule making process. During 2017 North of Falcon negotiations with the Area 7/7A tribes, it was agreed that the non-treaty fleet would open on October 10, the first possible day of fishing under the PST. WDFW's initial proposals included the non-treaty fleet opening on October 10 and remaining open until the non-treaty share was achieved. After final discussions with the co-managers, the non-treaty purse seine and gillnet fishing schedule is as follows: open Tuesday, October 10; Wednesday, October 11; Saturday, October 14 and Sunday, October 15. After these initial three days of non-treaty fishing, the co-managers will meet via conference call on Monday, October 16 to exchange and discuss catches through that date. The non-treaty catch will be compared to defined catch thresholds in 2017 agreed to 7/7A chum fishing plan, with decisions on dates for re-opening purse seine and gillnet fisheries based on those comparisons.

Comment by Shannon Moore: Bellingham Bay (Area 7B) should be open for pink fishing with 5-inch gillnet mesh beginning in week 33.

WDFW and the co-managers agreed to open Area 7B starting in week 33 for a targeted Chinook fishery. The forecasted return for Nooksack river Pink salmon for 2017 is 96,218. The escapement goal for the river is 50,000, leaving approximately 23,000 for a non-treaty share. With only a small number harvestable pinks available at the pre-season forecast, WDFW is hesitant to open a pink directed fishery. The department will consider in-season information to determine if there appears to be harvestable surplus available to open a pink directed fishery in 7B.

Comments by:

David Harsila on behalf of PSHA: In-season run timing of Samish (7B/7C) Chinook has been shifting to a later date per the Samish Hatchery managers. To address this shift and avoid bycatch early in the season, PSHA requests that the 7C Chinook fishery starts in week 33 and continues through week 37. Additionally the weekly fishing schedule should be Sunday, Monday, and Tuesday nights from 7pm to 8am.

Shannon Moore: Samish Bay should be open to Chinook in weeks 34 through 37

WDFW and the co-managers agreed on a fishing schedule that extended the Chinook openings in Samish Bay, Area 7C, through week 37. In week 33 the fishery is open nightly Sunday, Monday, and Tuesday nights with more days added in subsequent weeks.

Comment by Shannon Moore: Area 8D should be open for coho beginning in week 37 as there is a large harvestable surplus forecasted for 2017. In 2016 non-treaty commercial fishers were excluded from this fishery while the tribes had a record harvest of 70,000 coho.

In 2016 the department closed fisheries in Area 8D due to concerns over the low coho forecasts. For 2017 WDFW scheduled a coho directed fishery in Area 8D that is open three days a week for gillnets and one or two days a week for purse seines beginning in week 37.

Comment by David Harsila on behalf of Puget Sound Harvesters Association (PSHA) Board of Directors: Gillnet fishing times for chum in Areas 10/11 should not close at 7:00 AM when followed by a purse seine fishery. Closing at 7:00 AM puts an unnecessary hardship on the gillnet fleet. The 7:00 AM closure was adopted to address a gear conflict claimed by a few purse seine vessels in Area 11. This closure was not vetted and the gillnetters never agreed to it. Purse Seine Vessel Owners Association (PSVOA) claims that the 7:00 AM closure is allocation based and this is not true. The second day of purse seine fishing in week 43 has been curtailed by the Treaty Tribes and not the gillnets. The removal of purse seine days may have impacted the purse seine catch but this cannot be used to support the 7:00 AM closures as PSVOA asserts.

Since 2014 the department has implemented a schedule in the Areas 10 and 11 chum fishery in which gillnets close at 7:00 AM on the two days of the season when followed by a purse seine opening that starts at 7:00 AM. To maintain stability in the schedule, the department will continue this schedule for 2017 with gillnets closing at 7:00 AM one day in week 45. 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, open 4:00 PM to midnight, in weeks when there was only one

purse seine opening. These ‘market’ nights were requested by the gillnet industry to provide an opening late in the week for local marketing of their catch for the weekend. Changes to the fishing schedule, initially implemented in 2014, converted market nights to full nights of fishing, providing 33 hours of additional gillnet fishing opportunity compared to previous years. Based on the 2014 schedule, the gear groups were no longer in agreement on overlapping hours fishing in Areas 10 and 11.

For 2017, the schedule results in one scheduled gillnet opening closing at 7:00 AM, in week 45. The remaining gillnet openings close at 8:00 AM or 9:00 AM depending on daylight savings and time of sunrise. Similar schedules in 2014 and 2015 resulted in an average gillnet proportion of catch of 27%, which is slightly above the historic average of 26%. These catch proportions are in direct contrast to the assertion that ‘direct takeaway and certain hardship’ is occurring for the gillnet fleet due to closing at 7:00 AM.

WDFW does not agree that closing the gillnet fishery at 7:00 AM on one morning of the season will unfairly impact the gillnet fleet, given that the fleet will maintain recent increases in opportunity through extension of market nights to full night openings.

Comment by Shannon Moore: Requests that the department continue alternating annual and weekly first starts between gear groups in fall chum fishery.

WDFW agrees that alternating first starts between the gillnet and purse seine gear groups (i.e., year-by-year alternating which gear starts the first day of the first week, and then within a year’s schedule alternating between the weeks) is a fair management tool that helps reduce conflict between the gear groups. For 2017, WDFW scheduled alternating first starts for each gear group in the South Sound and Hood Canal fall chum fisheries.

Comment by Bob Kehoe on behalf of PSVOA: Requests that the WDFW continue to pursue an agreement with the tribes that has two purse seine openings in week 43. The tribal claim that this schedule interferes with their chum fisheries is baseless and tribal fishing in Area 9 (in front of any non-treaty fishery) further weakens their argument. If WDFW cannot reach an agreement with the tribes for purse seines to fish two days in week 43, PSVOA requests that WDFW eliminates the second day of gillnet openings in week 43. Based on weekly catch data from 2015 and 2016, eliminating a gillnet day in week 43 is more likely to result in a 74% purse seine catch share and eliminating a gillnet fishing day in week 42 is likely to result in purse seines failing to catch 74% of the non-treaty share for the third consecutive year.

WDFW remains committed to achieving the management objectives listed above (in the “Rationale for Adoption of Rules” section) for the Puget Sound commercial fleet, in order of priority: 1) Conserve fishery resources in a manner that does not impair the resource by achieving conservation objectives for all species and stocks; 2) Harvest the non-treaty share of salmon; and 3) Maintain the economic well-being and stability of the fishing industry. Therefore, WDFW needs to maintain a schedule that creates opportunities for both gillnet and purse seine gear groups in an effort to achieve the non-treaty share and to support economic stability between the gear groups. 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. Changes to the non-treaty commercial chum schedule that were initiated in 2014 have already been assessed, as reported above in this document, based on actual performance during the 2014-2016 seasons.

For the 2014 season, WDFW used estimates of chum catch per hour by gear type to predict catch proportions of 25% for gillnets and 75% for purse seines. Resulting actual catch proportions in 2014 were very similar to projections, at 24% for gillnets and 76% for purse seines (Table 1). The 2015 schedule provided virtually the same number of hours and weeks fishing per gear group as in 2014 but resulted in a different outcome with catch proportions of 31% gillnet and 69% purse seines (Tables 1 and 2). In 2016 both gear groups hours were reduced due to dates of management weeks for chum (i.e. not having a fishery in week 42) and the final outcome of negotiations with the tribes. 2016 resulted in catch shares of 32% gillnet and 68% purse seine, respectively. For 2017 the purse seine schedule is similar to 2014 and 2015 where WDFW removed one day of purse seine in week 44 and added a day in week 42. For 2017, WDFW only added one day of gillnet fishing to week 42 compared to two days in week 42 for 2014-2015. Based on the average catch per hour in recent years the department anticipates gillnets will catch 25% of the chum and purse seines will catch 75%.

WDFW does not want to remove only specific weeks from the fishery as catch can be highly variable throughout the season and WDFW is concerned about instability that selectively removing openings from specific weeks may cause. As discussed above, 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 economic well-being and stability in the industry. Furthermore, the proposal to cut gillnet openings as a response to WDFW's inability to negotiate more purse seine opportunity could frustrate the goal of harvesting the non-treaty share of the resource. If in-season run size updates for Hood Canal and South Sound chum indicate sufficient non-treaty allocation remains, and pending in-season discussions with tribal co-managers, the department will work to adjust the purse seine schedule accordingly to help ensure achievement of the non-treaty share in addition to economic stability in the industry.

Comment by Shannon Moore: Notes the economic value of Hood Canal hatchery chum and requests that the department develop a plan for harvesting these fish in Area 12C when there is substantial harvestable surplus available.

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.

Response to Comments Received During Comment Period for WSR 17-13-075

Comment by Bob Kehoe on behalf of PSVOA: Requests that WDFW change the proposed gillnet schedule by removing the gillnet opening scheduled for Wednesday October 25 in management

week 43 and adding a gillnet fishing day in week 42. Based on weekly catch data from 2015 and 2016, eliminating a gillnet day in week 43 is more likely to result in a 74% purse seine catch share and eliminating a gillnet fishing day in week 42 is likely to result in purse seines failing to catch 74% of the non-treaty share for the third consecutive year.

For 2017 WDFW anticipates catch proportions of total chum for gillnets and purse seines will be similar to the 2008-2016 average, at 25% and 75%, respectively. This expected outcome is very close to the historic averages of 26% and 74% for gillnets and purse seines. WDFW concludes that the projected result of the 2017 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 2017.

Additionally, see response in the “Response to Comments Received During Comment Period for WSR 17-06-077” section above.

Conclusion

WDFW has considered all the facts and circumstances surrounding the 2017 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 2017 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 GDPDEF adjusted for gillnet and purse seine, in the combined South Sound and

Hood Canal fisheries, 1973-2016.

	Year	GDPDEF	Combined Gears Total Catch	Combined Gears Ex-vessel Value	Combined Gears Ex-vessel Value GDPDEF adjusted	GN		GN Ex-vessel Value	GN Ex-vessel Value GDPDEF Adjusted	GN Ex-vessel Value License	Purse Seine Licenses	PS Catch	PS		PS Ex-Vessel Value	PS Ex-Vessel Value GDPDEF Adjusted	PS Ex-vessel Value License
						Licenses	GN Catch						Proportion of catch	Proportion of Catch			
\$5,000,000	1973	0.24	93,264	\$734,961	\$3,045,217	1,303	59,793	0.64	\$472,419	\$1,957,408	\$1,502	320	33,471	0.36	\$262,542	\$1,087,809	\$3,399
	1974	0.27	15,353	\$78,322	\$293,651	1,990	2,023	0.13	\$10,399	\$38,990	\$20	137	13,330	0.87	\$67,923	\$254,661	\$1,859
	1975	0.29	6,534	\$49,699	\$173,487	1,659	3,017	0.46	\$20,410	\$71,247	\$43	385	3,517	0.54	\$29,289	\$102,240	\$266
	1976	0.30	119,743	\$1,107,754	\$3,675,261	1,536	65,385	0.55	\$644,114	\$2,137,015	\$1,391	376	54,358	0.45	\$463,640	\$1,538,246	\$4,091
	1977	0.32	146,509	\$1,471,793	\$4,582,098	1,517	114,444	0.78	\$1,189,141	\$3,702,122	\$2,440	393	32,065	0.22	\$282,653	\$879,976	\$2,239
\$4,500,000	1978	0.34	291,755	\$3,110,616	\$9,026,667	1,532	166,416	0.57	\$2,132,816	\$6,189,198	\$4,040	402	125,339	0.43	\$977,800	\$2,837,469	\$7,058
	1979	0.37	13,063	\$87,840	\$234,716	1,501	6,901	0.53	\$54,040	\$144,398	\$96	402	6,162	0.47	\$33,800	\$90,317	\$225
	1980	0.41	192,116	\$1,029,828	\$2,509,151	1,487	78,977	0.41	\$513,517	\$1,251,171	\$841	398	113,139	0.59	\$516,311	\$1,257,980	\$3,161
\$4,000,000	1981	0.44	123,688	\$1,113,134	\$2,504,511	1,450	63,428	0.51	\$587,612	\$1,322,105	\$912	396	60,260	0.49	\$525,522	\$1,182,406	\$2,986
	1982	0.47	200,191	\$1,144,347	\$2,446,208	1,420	70,801	0.35	\$425,611	\$909,805	\$641	390	129,390	0.65	\$718,736	\$1,536,402	\$3,939
	1983	0.48	128,969	\$1,039,556	\$2,151,051	1,374	46,097	0.36	\$376,604	\$779,269	\$567	383	82,872	0.64	\$662,953	\$1,371,782	\$3,582
	1984	0.50	266,228	\$2,016,143	\$4,033,437	1,259	94,041	0.35	\$708,422	\$1,417,248	\$1,126	367	172,187	0.65	\$1,307,722	\$2,616,189	\$7,129
\$3,500,000	1985	0.51	184,764	\$935,630	\$1,818,010	1,196	53,811	0.29	\$335,146	\$651,219	\$544	349	130,953	0.71	\$600,483	\$1,166,791	\$3,343
	1986	0.52	276,814	\$1,141,165	\$2,176,853	1,200	71,595	0.26	\$301,284	\$574,721	\$479	345	205,219	0.74	\$839,881	\$1,602,132	\$4,644
	1987	0.54	466,208	\$6,608,284	\$12,240,715	1,148	105,651	0.23	\$1,760,755	\$3,261,497	\$2,841	341	360,557	0.77	\$4,847,529	\$8,979,218	\$26,334
	1988	0.56	471,548	\$3,651,358	\$6,516,900	1,142	153,758	0.33	\$1,223,330	\$2,183,384	\$1,912	342	317,790	0.67	\$2,428,028	\$4,333,516	\$12,671
	1989	0.58	274,858	\$2,430,410	\$4,187,029	1,152	95,913	0.35	\$828,325	\$1,427,010	\$1,239	341	178,945	0.65	\$1,602,086	\$2,760,019	\$8,094
\$3,000,000	1990	0.60	261,821	\$2,270,850	\$3,767,512	1,148	89,200	0.34	\$776,463	\$1,288,210	\$1,122	337	172,621	0.66	\$1,494,388	\$2,479,302	\$7,357
	1991	0.62	307,908	\$1,481,976	\$2,387,359	1,132	77,835	0.25	\$423,123	\$681,621	\$602	330	230,073	0.75	\$1,058,853	\$1,705,738	\$5,169
	1992	0.63	529,520	\$2,461,390	\$3,878,363	1,118	173,808	0.33	\$833,282	\$1,312,985	\$1,174	327	355,712	0.67	\$1,628,109	\$2,565,378	\$7,845
\$2,500,000	1993	0.65	402,089	\$2,316,092	\$3,566,667	1,083	125,238	0.31	\$757,658	\$1,166,756	\$1,077	318	276,851	0.69	\$1,558,434	\$2,399,911	\$7,547
	1994	0.66	386,967	\$1,104,806	\$1,666,508	1,042	64,465	0.17	\$181,819	\$274,259	\$263	306	322,502	0.83	\$922,987	\$1,392,249	\$4,550
	1995	0.68	288,538	\$809,434	\$1,197,063	966	55,178	0.19	\$150,667	\$222,820	\$231	297	233,360	0.81	\$658,767	\$974,243	\$3,280
	1996	0.69	490,370	\$786,358	\$1,143,240	887	74,319	0.15	\$114,229	\$166,071	\$187	292	416,051	0.85	\$672,129	\$977,168	\$3,346
	1997	0.70	209,837	\$856,313	\$1,225,457	872	19,488	0.09	\$74,057	\$105,982	\$122	290	190,349	0.91	\$782,255	\$1,119,475	\$3,860
\$2,000,000	1998	0.71	414,133	\$682,627	\$966,627	820	52,035	0.13	\$86,581	\$122,602	\$150	276	362,098	0.87	\$596,046	\$844,024	\$3,058
	1999	0.72	90,471	\$317,261	\$441,898	682	18,782	0.21	\$63,843	\$88,924	\$130	262	71,689	0.79	\$253,418	\$352,974	\$1,347
	2000	0.74	123,932	\$627,545	\$852,424	679	19,329	0.16	\$92,279	\$125,347	\$185	262	104,603	0.84	\$535,266	\$727,077	\$2,775
	2001	0.75	679,244	\$1,490,595	\$1,985,467	359	48,505	0.07	\$100,715	\$134,152	\$374	122	630,739	0.93	\$1,389,880	\$1,851,314	\$15,175
\$1,500,000	2002	0.76	788,468	\$1,317,428	\$1,725,633	215	29,534	0.04	\$48,076	\$62,973	\$293	84	758,934	0.96	\$1,269,351	\$1,662,661	\$19,794
	2003	0.78	713,597	\$1,339,056	\$1,719,926	208	59,043	0.08	\$104,987	\$134,849	\$648	83	654,554	0.92	\$1,234,068	\$1,585,077	\$19,097
	2004	0.80	1,047,080	\$2,718,389	\$3,386,779	204	113,781	0.11	\$324,818	\$404,683	\$1,984	81	933,299	0.89	\$2,393,572	\$2,982,096	\$36,816
	2005	0.83	318,802	\$1,327,792	\$1,600,054	202	94,944	0.30	\$386,887	\$466,218	\$2,308	81	223,858	0.70	\$940,905	\$1,133,836	\$13,998
\$1,000,000	2006	0.85	695,849	\$3,748,099	\$4,399,447	198	116,160	0.17	\$590,702	\$693,355	\$3,502	75	579,689	0.83	\$3,157,397	\$3,706,093	\$49,415
	2007	0.87	598,376	\$4,719,458	\$5,405,244	198	169,933	0.28	\$1,324,268	\$1,516,697	\$7,660	75	428,443	0.72	\$3,395,191	\$3,888,546	\$51,847
	2008	0.89	375,857	\$2,937,003	\$3,301,131	196	92,454	0.25	\$721,898	\$811,398	\$4,140	75	283,403	0.75	\$2,215,105	\$2,489,733	\$33,196
	2009	0.89	278,064	\$1,780,429	\$1,994,093	195	78,693	0.28	\$517,907	\$580,059	\$2,975	75	199,371	0.72	\$1,262,522	\$1,414,034	\$18,854
	2010	0.91	404,366	\$3,429,154	\$3,773,620	195	98,057	0.24	\$833,760	\$917,514	\$4,705	75	306,309	0.76	\$2,595,393	\$2,856,106	\$38,081
\$500,000	2011	0.93	431,128	\$4,311,188	\$4,654,409	195	88,405	0.21	\$943,899	\$1,019,044	\$5,226	75	342,723	0.79	\$3,367,289	\$3,635,364	\$48,472
	2012	0.94	538,130	\$3,678,425	\$3,895,620	195	131,532	0.24	\$862,026	\$912,925	\$4,682	75	406,598	0.76	\$2,816,399	\$2,982,695	\$39,769
	2013	0.96	874,442	\$4,915,441	\$5,123,410	195	115,008	0.13	\$633,136	\$659,924	\$3,384	75	759,434	0.87	\$4,282,305	\$4,463,486	\$59,513
	2014	0.97	468,939	\$3,674,057	\$3,769,651	195	111,225	0.24	\$841,129	\$863,014	\$4,426	75	357,714	0.76	\$2,832,928	\$2,906,637	\$37,817
\$0	2015	0.99	481,038	\$2,580,554	\$2,619,713	195	148,114	0.31	\$766,167	\$777,793	\$3,989	75	332,924	0.69	\$1,814,387	\$1,841,920	\$24,192
	2016	1.00	363,686	\$2,802,134	\$2,802,134	195	117,897	0.32	\$904,081	\$904,081	\$4,636	75	245,789	0.68	\$1,898,054	\$1,898,054	\$24,963
	1973-2002 Avg.		274,830	\$1,475,784	\$2,880,639	1,162	69,992	0.32	\$509,558	\$1,125,684	\$885	319	204,838	0.68	\$966,226	\$1,754,956	\$6,004
	2003-2016 Avg.		542,097	\$3,140,084	\$3,460,374	198	109,660	0.23	\$696,833	\$761,540	\$3,876	76	432,436	0.77	\$2,443,251	\$2,698,834	\$35,431
	2008-2016 avg.		468,406	\$3,345,376	\$3,548,198	195	109,043	0.25	\$780,445	\$827,306	\$4,240	75	359,363	0.75	\$2,564,931	\$2,720,892	\$36,095

Figure 1. Trends in annual, GDPDEF-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 – 2016, and projected value for 2017.

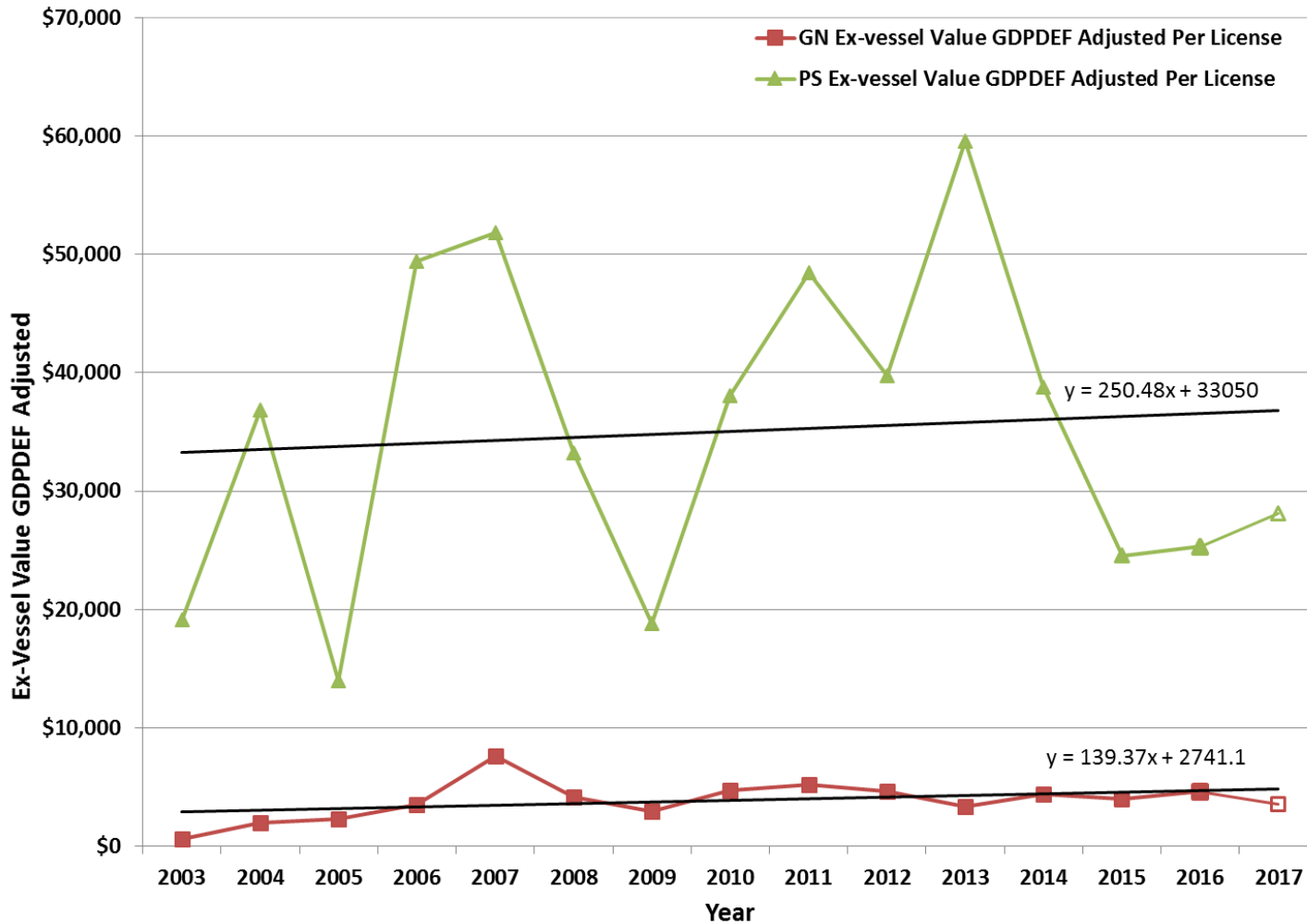


Figure 2. Trends in annual, GDPDEF-adjusted ex-vessel value per license for gillnet and purse seine chum salmon landings for South Sound (Areas 10 and 11) and Hood Canal (Areas 12, 12B, and 12C), 2003– 2016, and projected value for 2017.

Table 2. Comparison of pre-season scheduled hours from 2013 - 2017 by gear type in Hood Canal and South Puget Sound chum fisheries.

Year	Gillnet		Purse Seine	
	South Sound	Hood Canal	South Sound	Hood Canal
2017	175	157	73	83
2016	189	144	73	73
2015	221	170	83	83
2014	221	172	83	83
2013	165	148	83	83