# 2018 Southeast Alaska Drift Gillnet Fishery Management Plan

by Dan Gray Wyatt Rhea-Fournier Tom Kowalske Scott Forbes Bo Meredith and Aaron Dupuis

April 2018

Alaska Department of Fish and Game



**Division of Commercial Fisheries** 

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| Weights and measures (metric)              |                    | General                  |                       | Mathematics, statistics        |                         |
|--|--------------------|--------------------------|-----------------------|--------------------------------|-------------------------|
| centimeter                                 | cm                 | Alaska Administrative    |                       | all standard mathematical      |                         |
| deciliter                                  | dL                 | Code                     | AAC                   | signs, symbols and             |                         |
| gram                                       | g                  | all commonly accepted    |                       | abbreviations                  |                         |
| hectare                                    | ha                 | abbreviations            | e.g., Mr., Mrs.,      | alternate hypothesis           | H <sub>A</sub>          |
| kilogram                                   | kg                 |                          | AM, PM, etc.          | base of natural logarithm      | е                       |
| kilometer                                  | km                 | all commonly accepted    |                       | catch per unit effort          | CPUE                    |
| liter                                      | L                  | professional titles      | e.g., Dr., Ph.D.,     | coefficient of variation       | CV                      |
| meter                                      | m                  |                          | R.N., etc.            | common test statistics         | (F, t, $\chi^2$ , etc.) |
| milliliter                                 | mL                 | at                       | @                     | confidence interval            | CI                      |
| millimeter                                 | mm                 | compass directions:      |                       | correlation coefficient        |                         |
|  |                    | east                     | E                     | (multiple)                     | R                       |
| Weights and measures (English)             |                    | north                    | Ν                     | correlation coefficient        |                         |
| cubic feet per second                      | ft <sup>3</sup> /s | south                    | S                     | (simple)                       | r                       |
| foot                                       | ft                 | west                     | W                     | covariance                     | cov                     |
| gallon                                     | gal                | copyright                | ©                     | degree (angular )              | 0                       |
| inch                                       | in                 | corporate suffixes:      |                       | degrees of freedom             | df                      |
| mile                                       | mi                 | Company                  | Co.                   | expected value                 | Ε                       |
| nautical mile                              | nmi                | Corporation              | Corp.                 | greater than                   | >                       |
| ounce                                      | OZ                 | Incorporated             | Inc.                  | greater than or equal to       | ≥                       |
| pound                                      | lb                 | Limited                  | Ltd.                  | harvest per unit effort        | HPUE                    |
| quart                                      | qt                 | District of Columbia     | D.C.                  | less than                      | <                       |
| yard                                       | yd                 | et alii (and others)     | et al.                | less than or equal to          | $\leq$                  |
|  |                    | et cetera (and so forth) | etc.                  | logarithm (natural)            | ln                      |
| Time and temperature                       |                    | exempli gratia           |                       | logarithm (base 10)            | log                     |
| day  | d                  | (for example)            | e.g.                  | logarithm (specify base)       | $\log_{2}$ , etc.       |
| degrees Celsius                            | °C                 | Federal Information      |                       | minute (angular)               | •                       |
| degrees Fahrenheit                         | °F                 | Code                     | FIC                   | not significant                | NS                      |
| degrees kelvin                             | Κ                  | id est (that is)         | i.e.                  | null hypothesis                | Ho                      |
| hour                                       | h                  | latitude or longitude    | lat or long           | percent                        | %                       |
| minute                                     | min                | monetary symbols         |                       | probability                    | Р                       |
| second                                     | S                  | (U.S.)                   | \$, ¢                 | probability of a type I error  |                         |
|  |                    | months (tables and       |                       | (rejection of the null         |                         |
| Physics and chemistry                      |                    | figures): first three    |                       | hypothesis when true)          | α                       |
| all atomic symbols                         |                    | letters                  | Jan,,Dec              | probability of a type II error |                         |
| alternating current                        | AC                 | registered trademark     | ®                     | (acceptance of the null        |                         |
| ampere                                     | А                  | trademark                | ТМ                    | hypothesis when false)         | β                       |
| calorie                                    | cal                | United States            |                       | second (angular)               | "                       |
| direct current                             | DC                 | (adjective)              | U.S.                  | standard deviation             | SD                      |
| hertz                                      | Hz                 | United States of         |                       | standard error                 | SE                      |
| horsepower                                 | hp                 | America (noun)           | USA                   | variance                       |                         |
| hydrogen ion activity<br>(negative log of) | pН                 | U.S.C.                   | United States<br>Code | population sample              | Var<br>var              |
| parts per million                          | ppm                | U.S. state               | use two-letter        | -                              |                         |
| parts per thousand                         | ppt,               |                          | abbreviations         |                                |                         |
| -  | <b>%</b>           |                          | (e.g., AK, WA)        |                                |                         |
| volts                                      | V                  |                          |                       |                                |                         |
| watts                                      | W                  |                          |                       |                                |                         |
|  |                    |                          |                       |                                |                         |

### **REGIONAL INFORMATION REPORT NO. 1J18-06**

#### 2018 SOUTHEAST ALASKA DRIFT GILLNET FISHERY MANAGEMENT PLAN

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> > April 2018

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This document should be cited as follows:

Gray, D., W. Rhea-Fournier, T. Kowalske, S. Forbes, B. Meredith, and A. Dupuis. 2018. 2018 Southeast Alaska drift gillnet Fishery Management Plan. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 1J18-06 Douglas.

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## ABSTRACT

This management plan provides an overview of the expected salmon run sizes, regulations, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2018. Drift gillnet fisheries are planned at Tree Point and Portland Canal (District 1), Prince of Wales Island and Stikine River (Districts 6 and 8), Taku River/Port Snettisham (District 11), Lynn Canal (District 15), and in the following terminal hatchery areas: Neets Bay (District 1), Nakat Inlet (District 1), Anita Bay (District 7), Speel Arm (District 11), Deep Inlet (District 13), and Boat Harbor (District 15).

Key words: Southeast Alaska, drift gillnet, management plan, Pacific salmon, *Oncorhynchus*, outlook, forecast, terminal harvest area, hatchery, 2018.

### **INTRODUCTION**

This management plan provides an overview of the expected salmon run sizes, regulations, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2018.

For the recent 10-year period 2007 to 2016, an average of 474 Southeast Alaska (SEAK) drift gillnet limited entry permits were issued annually, of which an average of 89% were actively fished each year (Conrad and Gray 2018). In 2017, 473 permits were issued, of which 424 (90%) were actively fished. A historical low of 348 permits were fished in 2004. Drift gillnet harvests have averaged 4.8 million salmon over the recent 10-year period, and 3.1 million salmon since statehood (1960–2016). In the last ten years, the species composition of the drift gillnet harvest has been 59% chum, 24% pink, 9% sockeye, 7% coho, and <1% Chinook salmon. Of the total commercial salmon harvest in Southeast Alaska, the most recent 10-year average drift gillnet fishery harvests have included 42% sockeye, 28% chum, 13% coho, 9% Chinook, and 4% pink salmon.

The five traditional drift gillnet fishing areas in Southeast Alaska are shown in Figure 1: Tree Point and Portland Canal (District 1); Prince of Wales (District 6); Stikine (District 8); Taku/Snettisham (District 11); and Lynn Canal (District 15). In addition, drift gillnet fisheries occur in several terminal harvest areas (THA) adjacent to hatchery facilities and at remote release sites throughout the region. Each of these gillnet fisheries are discussed separately in this management plan. A summary of the 2017 season drift gillnet harvest for each species by fishery area and type is presented in Table 1. The most recent 10-year annual and average harvests are presented in Table 2 for Tree Point, Table 3 for Prince of Wales, Table 4 for Stikine River, Table 5 for Taku/Snettisham, and Table 6 for Lynn Canal.

The drift gillnet fishery primarily targets sockeye, pink, and chum salmon during the summer season and coho and chum salmon during the fall season. Directed commercial fisheries harvesting Stikine and Taku rivers Chinook salmon began in 2005 after ceasing in the 1970s. District 8 was opened to directed Stikine River Chinook salmon fisheries from 2005 through 2008, and limited fisheries occurred in 2012 and 2016. The 2018 Stikine River Chinook salmon preseason forecast is below the lower end of the escapement goal range, which will result in conservative management during the early portion of the sockeye salmon fishery. In District 11, directed fisheries on Taku River Chinook salmon occurred in 2005, 2006, and 2009, and two 12-hour openings occurred in 2012. The 2018 Taku River preseason Chinook salmon terminal run forecast is far below the escapement goal range resulting in no directed fisheries and more conservative actions than what occurred in 2017 in the early sockeye salmon fishery openings.

SEAK Chinook salmon stocks are currently experiencing a cycle of very low abundance. Over the past five years (2013–2017), the eleven monitored Chinook salmon index systems did not meet escapement goals 51% of the time. In 2017, nine of the eleven monitored Chinook salmon index systems were below their escapement goal ranges. In 2018, four of the five systems for which forecasts are developed are projecting a total run below their escapement goal ranges. Three of these systems, the Taku, Stikine, and Chilkat rivers, are within the District 11, District 8, and District 15 drift gillnet fishing areas. Commercial, sport, personal use, and subsistence fisheries will be restricted throughout SEAK in 2018 to conserve Chinook salmon. More information on management actions in the drift gillnet fishery can be found in the Chinook salmon and the specific fishing area sections below.

## SALMON RETURN EXPECTATIONS

In SEAK, the Alaska Department of Fish and Game (ADF&G) issues a regionwide preseason harvest forecast for pink salmon. ADF&G also produces preseason forecasts for several specific stocks including Chinook and sockeye salmon from Taku and Stikine rivers. Private nonprofit hatchery operators also develop preseason forecasts for salmon returning to enhancement projects throughout SEAK. The projected returns of sockeye, chum, and coho salmon presented in this management plan are qualitative and should not be considered official department forecasts. These projections are calculated primarily from parent-year catch and escapement data and are expressed in terms of probable magnitude of return relative to historic levels.

The 2018 Stikine River Chinook salmon terminal run forecast is 6,900 large fish (large Chinook salmon are greater than 659 mm mid eye to tail fork (MEF). This forecast uses sibling relationships in which the 2016 and 2017 estimated terminal runs, representing brood years 2012 and 2013, were used to predict the runs of age-5, brood year (BY) 2013 and age-6, BY 2012, fish in 2018 using the relationships observed in age classes over the past nine years. The 95% confidence interval of this forecast is 1,500 to 12,500 fish. This forecast is well below the average of 22,000 fish and below the escapement goal range of 14,000–28,000 fish. Management strategy will be detailed in the Prince of Wales and Stikine Fisheries section of this plan.

The 2018 preseason terminal run forecast for Taku River large Chinook salmon is 4,700 fish. This forecast does not provide for directed or assessment fisheries in either the U.S. or Canada on Taku River Chinook salmon and both countries will be utilizing restrictions during early sockeye salmon fishery openings. Details on the management strategy will be explained in the Taku/Snettisham Fishery section of this plan.

For 2018, the preliminary terminal run forecast for Stikine River sockeye salmon is 161,000 fish, which is near average. For comparison, the recent average (2008–2017) total Stikine sockeye run size is 159,000 fish. Wild sockeye salmon returns to the Taku River are expected to total 160,000 fish, lower than the recent 10-year average wild sockeye salmon terminal run size of 181,000 fish. Enhanced sockeye salmon returns to the Taku River are again expected to be minimal with a recent 10-year average terminal run of approximately 10,000 fish. Chilkat and Chilkoot lakes sockeye salmon returns are expected to be average. Douglas Island Pink and Chum, Inc. (DIPAC) forecasts 244,000 enhanced sockeye salmon returning to Snettisham Hatchery in 2018.

The projected regionwide forecast of hatchery chum salmon returns for 2018 is 9.1 million fish. This includes 3.1 million fish to four DIPAC locations, 2.7 million fish to five Northern Southeast Regional Aquaculture Association (NSRAA) locations (0.14 million chum produced at the Sitka Sound Science Center), 2.8 million fish to four Southern Southeast Regional Aquaculture Association (SSRAA) locations, 0.3 million fish to Armstrong Keta Inc., and 0.2 million fish to the Sitka Sound Science Center. A portion of these returns above broodstock and cost recovery needs may be harvested in traditional drift gillnet fisheries in Districts 1, 6, 8, 11, and 15 as well as in terminal area drift gillnet fisheries in Boat Harbor, Deep Inlet, Anita Bay, Neets Bay, and Nakat Inlet. Chum salmon harvests in regional drift gillnet fisheries have averaged 2.8 million fish per year over the recent 10-year period from 2007 to 2016, and during this period, chum salmon have accounted for 59% of salmon harvested.

Returns of wild coho salmon are not forecasted but are expected to be consistent with the recentyear averages. Alaska hatchery coho salmon contributions to drift gillnet fisheries in 2017 were estimated by hatchery operators at 32,000 fish (Stopha 2018), around 20% of total drift gillnet coho salmon harvests. The largest portion of this harvest was from Nakat Inlet with substantial harvest from Deep Inlet and Neck Lake.

The SEAK pink salmon harvest forecast for 2018 is 23 million fish, with a range of 3 to 44 million fish. The major portion of the pink salmon harvest for the region is generally taken by purse seine gear. Drift gillnet harvests of pink salmon have recently averaged 4% of regional pink salmon harvests.

## MANAGEMENT APPROACH

A flexible management approach is required due to uncertainty in salmon runs. This management plan presents a general outlook of how the season is expected to develop. Some specific management approaches may be altered depending on inseason assessments of salmon run strength. Gillnet fishermen are encouraged to contact ADF&G management staff listed at the end of this plan for more detailed information.

Primary objectives for management of the 2018 drift gillnet fishery are as follows:

- 1. Achieve overall salmon spawning escapements with the best possible distribution to all systems;
- 2. Provide for orderly fisheries while harvesting those salmon in excess of escapement objectives;
- 3. Promote the harvest and processing of good quality salmon within the constraints dictated by run size;
- 4. Minimize harvest of Chinook salmon using conservation actions outlined in subsequent sections of this management plan;
- 5. Minimize, to the extent possible, the harvest of salmon destined for locations where weak returns are expected;
- 6. Manage Districts 1, 6, 8, and 11 drift gillnet fisheries consistent with the provisions of the U.S./Canada Pacific Salmon Treaty (PST);
- 7. Manage hatchery THAs in accordance with provisions in THA management plans adopted by the Alaska Board of Fisheries (BOF).

Achievement of these management objectives will be accomplished by inseason adjustments of time and area to control harvests in specific areas in accordance with salmon run strength and timing. Comparisons of current-year fishing performance to historical fishing success (i.e., catch per unit effort [CPUE] analysis) are a major component of inseason run strength assessment. This approach assumes catch rates are an accurate reflection of run strength by time period and can be relied upon as an indication of salmon abundance throughout the fishing areas.

Past experience has demonstrated that management of salmon fisheries based solely on fishery performance, or CPUE, can be misleading, especially for mixed-stock fisheries. Therefore, other available run strength indicators will also be used including spawning escapements, stock composition estimates, test fishing, observed salmon concentrations in closed waters, harvests from other fisheries, and salmon run-timing models.

The increasing availability of hatchery-produced salmon has become a major factor in the management of SEAK drift gillnet fisheries, including coho and summer chum salmon throughout the region and sockeye salmon in District 11. Where inseason management is based on fishery performance, it may be difficult to gauge natural stock run strength if significant numbers of hatchery fish are present in the harvest. Where possible, the hatchery component of the harvest will be separated when evaluating fishery performance and management decisions outside of terminal areas will be based on wild stocks.

### WEEKLY FISHING ANNOUNCEMENTS

Inseason management of the District 1 drift gillnet fishery is conducted by Ketchikan Area staff; Districts 6 and 8 by Petersburg and Wrangell Area staff; District 11 by Juneau Area staff; and District 15 by Haines Area staff. Because permit holders can move freely among all drift gillnet fisheries, the weekly fishing announcements will be issued to include all areas in the region. These will normally be released simultaneously in all area offices by mid-afternoon each Thursday during the fishing season.

## WEEKLY FISHING PERIODS

Weekly fishing periods in most traditional areas can generally be expected to begin on Sundays at 12:01 p.m. The District 6 weekly start day will be Monday for the first week of the sockeye salmon season. Fishing periods in hatchery THAs, including NSRAA and SSRAA terminal fisheries in Deep Inlet, Anita Bay, and Neets Bay, will be in accordance with rotational harvest management plans for drift gillnet, seine, and troll fisheries adopted by the BOF.

## FULL RETENTION

ADF&G will require full retention (5 AAC 39.265) of all salmon harvested in the Deep Inlet THA net fisheries from the onset of the 2018 season. This regulation may be implemented by emergency order in other areas of SEAK if necessary after consultation with the Alaska Wildlife Troopers (AWT). Further details regarding the implementation of this regulation will be announced at later dates.

### **USE OF DRONES PROHIBITED**

A regulation (5 AAC 33.398) adopted by the BOF in 2015 prohibits the use of unmanned aircraft to locate salmon for the commercial taking of salmon or to direct commercial salmon fishing operations during open commercial salmon fishing periods in the Southeastern Alaska Area.

## U.S./CANADA PACIFIC SALMON TREATY

The Pacific Salmon Treaty (PST) will directly influence management of Districts 1, 6, 8, and 11 drift gillnet fisheries [5 AAC 33.361]. The management provisions of the PST will be considered separately under the specific management plan for each fishery. Fishermen are encouraged to

contact local ADF&G staff for more detailed information concerning Alaska's PST obligations under the 2009–2018 Transboundary River (TBR) Annex agreement.

## **CHINOOK SALMON**

For 2018, the all-gear PST Chinook salmon allocation is 130,000 Treaty Chinook salmon based on the preseason Abundance Index of 1.07. The 2018 drift gillnet Treaty Chinook salmon allocation is 3,800 fish. The need for management measures to comply with the drift gillnet harvest quota for Chinook salmon will depend on inseason evaluation of Chinook salmon catch rates relative to the 2.9% drift gillnet allocation of the Treaty fish harvest ceiling [5 AAC 29.060]. Nighttime fishing closures will be implemented in certain areas to reduce the incidental catch of immature, "feeder" Chinook salmon. Only historical base level catches in Districts 8 and 11 will be counted towards the PST fish ceiling when directed fisheries occur.

Terminal Chinook salmon fisheries in Districts 8 and District 11 are bound by provisions of the TBR Annex of the PST. Management actions have been necessary to meet obligations of the PST in recent years and increased actions are expected in 2018. In addition, District 15 is managed under the provisions of the *Lynn Canal and Chilkat River King Salmon Fishery Management Plan* [5 AAC 33.384]. The District 15 drift gillnet fishery will be managed with time and area restrictions that exceed the provisions listed in the plan.

The BOF approved action plans for three Chinook salmon Stocks of Management Concern (Unuk, King Salmon, and Chilkat Rivers) at the 2018 Southeast and Yakutat Finfish Meeting. These plans outline specific actions to be taken in the Neets Bay THA, District 15, and District 11 drift gillnet fisheries, as well as purse seine, troll, sport, personal use, and subsistence fisheries throughout the region to minimize harvest of Chinook salmon returning to these systems. Management actions taken to conserve Taku and Stikine rivers Chinook salmon will be highly restrictive in attempts to attain escapement goals and stay within harvest limits outlined in the Pacific Salmon Treaty. Additionally, the 2018 Chinook salmon forecasts indicate returns to other Southeast Alaska systems, particularly to the Stikine and Taku rivers, will be at an all-time low. Therefore, ADF&G has imposed a 10% reduction to the Pacific Salmon Treaty all-gear Chinook salmon harvest limit for 2018 and as a result, some of the management actions for 2018 will be more restrictive than those described in the action plans. Management actions are being taken across all Southeast Alaska fisheries, including sport, commercial, personal use, and subsistence, to reduce harvest of wild Chinook salmon. More information about the basis for 2018 Chinook salmon conservation measures in SEAK is publicly available (links provided below).

Chilkat River and King Salmon River King Salmon Stock Status and Action Plan, 2018:

http://www.adfg.alaska.gov/FedAidPDFs/RIR.1J.2018.05.pdf

Unuk River King Salmon Stock Status and Action Plan, 2018:

http://www.adfg.alaska.gov/FedAidPDFs/RIR.1J.2018.04.pdf

2018 Southeast Alaska Chinook Salmon All Gear Harvest Limit press release:

http://www.adfg.alaska.gov/index.cfm?adfg=pressreleases.pr&release=2018\_04\_03\_2

Southeast Alaska Net Fisheries Chinook Salmon Management Restrictions News Release:

http://www.adfg.alaska.gov/static/applications/dcfnewsrelease/899583083.pdf

## TREE POINT AND PORTLAND CANAL FISHERY

#### INTRODUCTION

The Tree Point and Portland Canal drift gillnet fishing area consists of regulatory Sections 1-A and 1-B. This fishery targets summer chum and sockeye salmon early in the season, followed by pink salmon, and finally fall chum and coho salmon at the end of the season.

#### **2018 OUTLOOK**

#### **Chum Salmon**

Runs of summer chum salmon in southern SEAK were above goal in 2017, with good escapements to many of the index streams in the subregion. The index count of 84,000 chum salmon in the Southern Southeast Subregion was above the lower-bound sustainable escapement goal (SEG) of 62,000 index fish. The estimated escapement of 6,700 summer chum salmon at Fish Creek near Hyder was well below the long-term average of 24,100 fish (1971–2016).

#### **U.S./Canada Tree Point Fishery Agreement**

In the spring of 2009, the United States and Canada renegotiated a 10-year annex, 2009–2018, for the Tree Point fishery. There was no change to the District 1 drift gillnet portion of the PST and the agreement still calls for the following:

Manage the Alaska District 1 drift gillnet fishery to:

- 1. Achieve an annual catch share of Nass River sockeye salmon of 13.8% of the Annual Allowable Harvest (AAH) of the Nass River sockeye salmon stocks;
- 2. Carry forward from year to year annual deviations from the prescribed catch share arrangement.

#### Nass River Sockeye Salmon Annual Allowable Harvest

The AAH each year will be calculated as the total run of adult Nass River sockeye salmon in that year less the escapement target of 200,000 fish. In the event that the actual Nass River spawning escapement for the season is below the target level, the actual spawning escapement will be used in the AAH calculations.

The total run calculation includes the catches of Nass River sockeye salmon in the principal boundary area fisheries and the spawning escapement to the Nass River watershed. This includes the catch of Nass River sockeye salmon in Alaska Districts 1, 2, 3, 4, and 6 net fisheries, Canadian Areas 1, 3, 4, and 5 net fisheries, and Canadian Nass inriver fisheries.

Although the management intent shall be to harvest salmon at the AAH percentage, it is recognized that overages and underages will occur and an accounting mechanism is required. The payback mechanism for the fishery will be based on the number of fish a party is over or under its AAH.

The management intent for the fishery shall be to return any overages to a neutral or negative balance as soon as possible. After 5 years of consecutive overages, a management plan must be provided to the Northern Panel of the Pacific Salmon Commission with specific management actions that will eliminate the overage. The accrual of underages is not intended to allow either

Alaska or Canada to modify its fishing behavior in any given year, nor to harvest the accrued underage.

During the Pacific Salmon Commission meeting in January 2018, the bilateral Northern Panel and the Northern Boundary Technical Committee met and summarized the final run reconstruction of the Nass River for 2016. Preliminary reports indicate that the total sockeye salmon return to the Nass River in 2017 was 362,000 fish. That allowed for a harvest of 22,430 Nass River sockeye salmon at Tree Point in 2017. Total sockeye harvest at Tree Point for 2017 was 25,073 sockeye salmon and of these, 12,000 were Nass River sockeye. The performance of the Tree Point drift gillnet fishery under the 1999 agreement is shown in Table 7.

Fisheries and Oceans, Canada (FOC) has a preseason expectation for 2018 returns of 483,000 Nass River sockeye salmon. If the forecast is accurate, then the AAH for Tree Point will be 39,000 Nass River sockeye salmon.

#### **Chum and Coho Enhancement**

Hatchery returns of summer chum, fall chum, and coho salmon to SSRAA enhancement projects are expected to again contribute substantially to the Tree Point drift gillnet fishery in 2018. Information concerning SSRAA forecast returns is included under the THA Fisheries section of this plan.

#### Pink Salmon

The SEAK pink salmon forecast for 2018 is for an average return. Pink salmon returns to southern SEAK for the past 5 even years have averaged 19 million fish. If the actual returns are as forecasted, the Tree Point drift gillnet fishery may receive two-, four-, and five-day fishing periods during weeks of the *District 1 Pink Salmon Management Plan* (PSMP; 5 AAC 33.360).

The PSMP establishes drift gillnet fishing time in Section 1-B (Tree Point) in relation to District 1 purse seine fishing time when both gear types are concurrently harvesting the same pink salmon stocks. By regulation, the plan starts on the third Sunday in July (July 15, 2018) with the following fishing time schedule:

- 1. When the purse seine fishery is open for any portion of one day during a fishing week, the drift gillnet fishery must be open for 48 hours during the same fishing week;
- 2. When the purse seine fishery is open for any portion of two days during a fishing week, the drift gillnet fishery must be open for 96 hours during the same fishing week;
- 3. When the purse seine fishery is open for any portion of three or more days during a fishing week, the drift gillnet fishery must be open for 120 hours during the same week.

#### **MANAGEMENT GOALS**

Management goals specific to the 2018 Tree Point drift gillnet fishery are as follows:

- 1. Manage the fishery in accordance with the PSMP;
- 2. Manage the fishery consistent with the current provisions of the PST (5 AAC 33.361).

#### MANAGEMENT PLAN

The Tree Point gillnet fishery will open by regulation at 12:01 p.m., Sunday, June 17, in Section 1-B and the initial opening will be four days. The length of subsequent fishing periods will be

based on effort levels at Tree Point and the strength of wild stock sockeye and chum salmon returns to Alaska and Canada waters, until July 15 when the PSMP becomes effective.

As in recent years, the harvest of hatchery-produced summer chum salmon returning to the Nakat Inlet release site will not be included in the evaluation of natural stock fishery performance. The contribution of Nakat Inlet chum salmon will be estimated by inseason analysis of otolith marked fish. Hatchery chum salmon have contributed as much as 90% of the weekly chum salmon harvest at Tree Point and as much as 70% of the total chum salmon harvest in recent years.

The PST requires the harvest of natural stocks of chum salmon returning to Portland Canal streams be minimized to ensure adequate escapement of these stocks. As a result, no fishing should be expected in Section 1-A for Portland Canal chum salmon.

Depending on pink salmon run strength and timing, beginning in mid-July through the end of August, the Tree Point drift gillnet fishery can anticipate fishing periods of two, four, and five days.

Fall management at Tree Point starts after the end of the pink salmon season and varies depending on pink salmon run strength. During the fall season, the Tree Point fishery targets primarily fall chum and coho salmon; little is known about the stock composition of the chum and coho salmon harvest at this time of the year. However, if the estimated exploitation rate of the Hugh Smith Lake coho salmon stock, which has reached 80% in some years, holds true for adjacent areas, then wild coho salmon stocks in the surrounding Tree Point area may benefit from a closing date around September 17. Due to the uncertainties of escapement levels of stocks being harvested, the documented high exploitation rate of Hugh Smith Lake coho salmon in some years, and the preponderance of hatchery fish in the harvest, ADF&G will continue to take a conservative approach to the fall season at Tree Point. However, fishing periods will be allowed after September 17 if fishery performance data indicates above average returns of wild chum and coho salmon. During recent years, approximately 50% of the fall coho salmon and as much as 90% of the fall chum salmon have been hatchery fish. Nakat Inlet fish can be harvested in the Nakat Inlet THA which remains open by regulation to commercial fishing through November 10, 2018.

#### Hugh Smith Lake Sockeye Salmon

ADF&G will continue to monitor Hugh Smith Lake sockeye salmon. If escapement is below the lower bound of the escapement goal range of 8,000 fish, the department may consider the following actions:

- In statistical weeks (SW) 29 and 30, the department may close that portion of the District 1 purse seine fishery east of a line from Quadra Point to Slate Island Light to Black Rock Light to a point on the mainland shore at 55°01.40' N. latitude, 131°00.20' W. longitude.
- 2. In SW 31, 32, and 33, the department may close that portion of the District 1 purse seine fishery east of a line from Foggy Point Light to Black Rock Light to the southernmost tip of Black Island and close the northern portion of the Section 1-B drift gillnet fishery to one nautical mile south of the latitude of Foggy Point Light.

## PRINCE OF WALES AND STIKINE FISHERIES

#### INTRODUCTION

The Prince of Wales (District 6) drift gillnet fishery occurs in the waters of northern Clarence Strait and Sumner Strait, in regulatory Sections 6-A, 6-B, 6-C, and portions of Section 6-D. The Stikine fishery encompasses the waters of District 8 surrounding the terminus of the Stikine River. Due to their proximity, management of these fisheries is interrelated as stocks are subject to harvest in both fisheries. Two distinct management areas exist within each district: the Frederick Sound (Section 8-A) and Wrangell (Section 8-B) portions of District 8, and the Sumner Strait (Section 6-A) and Clarence Strait (Sections 6-B, 6-C, and 6-D) portions of District 6. Management plans for terminal hatchery runs to Crystal Lake and Anita Bay will be discussed in the THA fisheries portion of this document.

#### **2018 OUTLOOK**

#### **Chinook Salmon**

The 2018 preseason terminal run forecast for Stikine River large Chinook salmon is 6,900 fish, with a 95% confidence interval of 1,500 to 12,500 fish. This forecast is well below the average of 22,000 fish and well below the escapement goal range of 14,000–28,000 fish. The forecast for enhanced Chinook salmon returning to Anita Bay is 15,400 fish, above the average of 15,000 fish.

#### Sockeye Salmon

The 2018 preseason forecast for Stikine River sockeye salmon of 161,000 fish is near average (159,000 fish) and includes: 112,000 Tahltan Lake (70%), 13,000 enhanced Tuya Lake (8%), and 36,000 mainstem (22%) sockeye salmon. Fishing periods in District 8, and to a lesser extent in District 6, will be determined by inseason abundance estimates of Stikine River sockeye salmon. Typically, run timing peaks for sockeye salmon returning to Tahltan and Tuya lakes in SW 27 (July 1–7). During an average or above average Tahltan Lake run, substantial numbers of sockeye could be present as early as SW 25 (June 17–23) and as late as SW 31 (July 29–August 4). Sockeye salmon stocks returning to other local area streams are expected to be average based on parent-year escapements, with the exception of McDonald Lake sockeye salmon stock. The sockeye salmon run to McDonald Lake is expected to be poor again in 2018.

#### **Pink Salmon**

Pink salmon typically begin entering District 6 in substantial numbers near the end of July. Pink salmon returns to Districts 6 and 8 are expected to be good, as parent-year escapements to both districts were within target ranges. Pink salmon harvests typically peak during SW 31–33 in both districts.

#### **Chum Salmon**

In Districts 6 and 8, there is no direct management of chum salmon as they are caught incidentally in fisheries targeting sockeye, pink, and coho salmon. Chum salmon returning to Anita Bay contribute to salmon harvests in Districts 6 and 8. Anita Bay is expecting a total run of 459,000 summer chum, which is 23,000 fewer than 2017. Chum salmon returning to Anita Bay typically peak during the SW 30–32 period (July 22–Aug 11). Summer chum salmon production from Ketchikan area hatcheries are expected to be strong. Chum salmon returning to the

Ketchikan area hatchery facilities migrate through District 6 and typically contribute to the total District 6 chum harvest.

#### **Coho Salmon**

Enhanced coho salmon returns for 2018 are expected to be below average. Forecasted returns to Neck Lake and Neets Bay are 55,100 and 82,700 fish, respectively. The forecast for the Anita Bay coho salmon return is expected to be below average with 9,900 fish returning, much higher than the 2017 return of 3,900 fish. Wild coho salmon harvests are expected to be near average. Starting in SW 35 (August 26–September 1) weekly fishing periods will be determined based on wild coho salmon abundance.

## MANAGEMENT GOALS

Management goals for the District 6 and District 8 drift gillnet fisheries for the 2018 season are as follows:

- 1. Achieve Chinook salmon escapement goals;
- 2. Achieve the Stikine River sockeye salmon escapement goals while harvesting the Alaska share of Stikine River sockeye salmon;
- 3. Achieve sustainable spawning escapements of sockeye salmon in local Alaska systems;
- 4. Achieve pink salmon spawning escapement objectives in Districts 6 and 8;
- 5. Manage the District 6 and District 8 drift gillnet fisheries consistent with the provisions of the PST;
- 6. Manage the directed Stikine River Chinook salmon drift gillnet fishery in accordance to the *District 8 King Salmon Management Plan* (5 AAC 33.368) and associated closed water regulations (5 AAC 33.350 (i)(3-9)).

## MANAGEMENT PLAN

#### **Chinook Salmon**

The 2018 preseason forecast does not allow an AC for directed Chinook salmon fisheries in District 8. Recent trends of Stikine River Chinook salmon abundance and trends in Chinook salmon abundance throughout SEAK indicate very poor survival of Chinook salmon. As such, the U.S. will be restricting fisheries for Chinook salmon conservation.

Canada will also be taking actions to reduce their harvest of Stikine River Chinook salmon. Canada will be delaying the start of their sockeye salmon fishery by one week, will have mesh restrictions in place, will have restrictions on the use of set nets, and will be requesting release of live Chinook salmon. In addition, Canada will again not prosecute the assessment fishery. Inseason assessment will be based solely on the Kakwan Point tagging project.

#### Sockeye Salmon

Sockeye salmon fishing in both districts will be managed in accordance with the TBR Annex of the PST. The Annex allows District 6 to be managed primarily for local Alaska sockeye salmon stocks. Management of District 8 is based on the harvest of sockeye salmon of Stikine River origin, as allowed by the sharing provisions of the TBR Annex and conservation needs.

The sockeye salmon season could open by regulation as early as 12:00 noon on Monday, June 11 (SW 24). However, with an expected poor return of Stikine River Chinook salmon as well as Chinook salmon stocks throughout Southeast Alaska, conservation measures will be in place for the start of the sockeye salmon fishery. Conservation measures include, delaying the start of the sockeye salmon fishery by two weeks in District 8 and by one week in District 6, implementing a six-inch maximum mesh size, limiting fishing time, and limiting District 8 fishing area. The initial District 6 opening will be limited to 48 hours. The following week, SW 26, both Districts will be open for an initial 48 hours but may be extended for an additional 72 hours based on observed effort and harvest levels. During the first few weeks of the sockeye salmon fishery, any extended fishing time or midweek openings will be based on the preseason forecasts, harvest, expected harvest levels, and stock proportion data.

Due to the expected return of Tahltan Lake and mainstem sockeye salmon, fishing time will likely be similar to 2017 fishing time. If the Tahltan Lake component of the run appears to be weaker than forecasted, a more conservative management approach may limit fishing time in District 8 and fishery extensions in District 6 would likely not occur. If inseason estimates of mainstem sockeye salmon fall below expectations, more conservative management actions may be needed during SWs 29–32. If management actions are taken to conserve mainstem sockeye salmon, they will occur in District 8 and midweek fishing extensions would likely not occur. District 106 will be limited to two days a week during SWs 29–32 due to McDonald Lake sockeye salmon concerns.

Management actions during the sockeye salmon fishing season will be based on CPUE and stock specific data to determine the availability of Stikine River sockeye salmon. These stock abundance indicators, along with fishery performance and stock composition data obtained from U.S. and Canadian fisheries, will be incorporated into the Stikine Sockeye Management Model (SSMM). As the season progresses, this model will be the primary method to estimate availability of sockeye salmon for harvest. Management actions required for Stikine River sockeye salmon are implemented first in District 8 followed by District 6. Adjustments in fishing time, area, or district-wide closures will be used when needed. All openings will be based on the most recent SSMM update and current weekly sockeye salmon harvest.

Stikine River sockeye salmon generally begin to decrease in abundance in mid-July as other stocks, including McDonald Lake sockeye salmon, begin to migrate through the fishery. McDonald Lake sockeye salmon were designated as a stock of concern and an action plan was adopted by the BOF. Escapement of McDonald Lake sockeye salmon has fallen below the lower bound of the escapement goal range in 4 of the past 5 consecutive years. Given this history, and that the stock is not expected to meet the escapement goal in the near future, ADF&G recommended McDonald Lake sockeye salmon as a stock of concern as defined by the Sustainable Salmon Fishery Policy and the board designated McDonald Lake sockeye salmon as a stock of concern. A draft action plan was developed with several management options for the drift gillnet, purse seine, personal use, and sport fisheries for the board to consider. The draft plan was presented to the BOF during the 2018 meeting in Sitka where the board considered the various options and adopted management actions similar to the 2009 plan (Bergmann et al. 2009). The adopted actions for the District 6 drift gillnet fishery calls for a maximum fishing time of 2 days per week during the peak weeks of the McDonald Lake sockeye salmon run in SWs 29, 30, and 31 (Walker et al. 2018).

McDonald Lake Sockeye Salmon Stock Status and Action Plan, 2018 can be found at this link:

http://www.adfg.alaska.gov/FedAidPDFs/RIR.1J.2018.03.pdf

Announcements of additional fishing time by extensions or mid-week openings will be made from the fishing grounds by 10:00 a.m. on the final day of the scheduled opening. Areas opened for any additional fishing time may not be the same as the general weekly opening.

#### Pink Salmon

Pink salmon normally begin entering District 6 in substantial numbers in late July. Early portions of the pink salmon fishery will be managed primarily on CPUE and parent-year escapement. By mid-August, pink salmon destined for local systems will begin to enter the fishery in greater numbers and management will be based on observed escapements to local streams. Parent-year escapements to Districts 6 and 8 met escapement objectives. The expected return may result in above average fishing days during the pink salmon management period.

#### **Coho Salmon**

Management for coho salmon typically begins in late August or early September and will be based on wild coho stocks. Crystal Lake Hatchery, facilities in the Ketchikan area, Anita Bay remote release site, and Neck Lake remote release site at Whale Pass, all contribute coho salmon to Districts 6 and 8 fisheries. Inseason estimates from coded wire tag (CWT) recovery data will be used to identify the hatchery component of the harvest.

## **TAKU/SNETTISHAM FISHERY**

#### **INTRODUCTION**

The Taku/Snettisham (District 11) drift gillnet fishing area encompasses Section 11-B (Taku Inlet, Port Snettisham, and Stephens Passage north of Midway Island) and Section 11-C (Midway Island south to a line from Point League to Point Hugh). This fishery has historically targeted sockeye salmon from late June to mid-August and fall chum and coho salmon from mid-August to mid-October. In recent decades, the fishery has harvested substantial numbers of hatchery summer chum and sockeye salmon.

#### **2018 OUTLOOK**

#### **Chinook Salmon**

The 2018 preseason terminal run forecast of 4,700 Taku River large Chinook salmon does not provide any AC for either U.S. or Canadian directed fisheries. This is the smallest Taku River forecast ever produced and is 14,300 fish below the escapement goal range. DIPAC forecasts returns totaling 6,700 hatchery Chinook salmon from their smolt release sites at Gastineau Channel, Auke Bay, Fish Creek, and Lena Cove.

#### Sockeye Salmon

The terminal run of Taku River wild sockeye salmon in 2018 is expected to be 160,000 fish, below the recent 10-year average of 181,000 fish. This forecast is based on stock recruitment analysis and recent trends in ocean survivals. The 2013 main parent-year escapement of 76,000 wild fish and the 2014 parent-year escapement of 91,000 wild fish were within and above the SEG range of 71,000–80,000 fish, respectively. Adult returns to date from the joint U.S./Canada

Taku River sockeye salmon enhancement project at Tatsamenie Lake have been low. Numbers of enhanced sockeye salmon returning to this system are not expected to contribute significantly to harvests in 2018.

The Speel Lake escapement goal was revised in 2014 to a SEG of 4,000–9,000 sockeye salmon. Both the 2013 and 2014 parent-year escapements through the Speel Lake weir were within the revised range, at 6,427 fish and 5,062 fish, respectively. The escapement goal in 2017 was not met for the first time since 2009 with 3,434 fish counted through the weir. Beginning in 2005, DIPAC replaced the Crescent Lake weir with side scan sonar to monitor salmon escapements into the lake. Although all species of salmon enter Crescent Lake, the majority are thought to be sockeye salmon. The 2005–2010 average sonar count was 6,400 fish. Due to technical issues, the sonar monitoring program has been discontinued and Crescent Lake salmon escapements will be monitored by aerial surveys in 2018.

The 2018 DIPAC forecast for enhanced sockeye salmon returning to Snettisham Hatchery is 244,000 fish, 143% of last year's total return of 171,000 fish.

#### **Chum Salmon**

In 2018, 909,000 Gastineau Channel and 181,000 Limestone Inlet summer chum salmon are forecast to return from DIPAC hatchery releases. The total estimated DIPAC chum salmon contribution to the Section 11-B drift gillnet fishery is 565,000 fish. Returns of fall chum salmon to the Taku River are expected to be similar to recent seasons.

#### Pink Salmon

Returns of pink salmon to District 11 systems are expected to be below average in 2018. Parentyear pink salmon escapements to District 11, and throughout the northern part of the region, were below average in 2016. The total number of pink salmon counted through the Taku River Canyon Island fish wheels in 2016 was 13% of the recent ten even-year average indicating well below average escapement to the Taku River.

#### **Coho Salmon**

The 2018 run of Taku River coho salmon is expected to be below average. The terminal run forecast, based on a smolt estimate with a two-year average marine survival applied, is 81,000 fish. This compares to a recent 10-year average terminal run of 121,000 fish. DIPAC projects a 2018 return of 37,000 hatchery coho salmon from their smolt releases into Gastineau Channel.

### MANAGEMENT GOALS

Management goals for the 2018 Taku/Snettisham drift gillnet fishery are as follows:

- 1. Provide sufficient salmon spawning escapements to Taku River, Port Snettisham, and Stephens Passage streams while harvesting those fish in excess of escapement needs;
- 2. Manage the fishery consistent with current provisions of the PST;
- 3. Maximize the harvest of hatchery-produced chum salmon returning to Limestone Inlet while minimizing the incidental harvest of Port Snettisham wild sockeye salmon;
- 4. Manage the return of Port Snettisham enhanced sockeye salmon consistent with the *District 11: Snettisham Hatchery Salmon Management Plan* (5 AAC 33.378);
- 5. Manage the Speel Lake sockeye salmon run to achieve an escapement of 4,000–9,000 spawners.

### MANAGEMENT PLAN

The District 11 drift gillnet fishery will be managed in accordance with the TBR Annex of the PST. Harvest sharing arrangements for Chinook, sockeye, and coho salmon through the 2018 fishing season are specified in the annex.

#### **Chinook Salmon**

The preseason forecast is well below the escapement goal range and requires a conservative management approach for the 2018 Taku River Chinook salmon run. The forecast does not provide any AC for U.S. fisheries in early May, no assessment fishery will occur on the Canadian side of the border, and the joint U.S./Canada inriver assessment project on the U.S. side of the border will be minimized to reduce the number of fish handled. Inseason abundance estimates derived from comparisons of inriver tangle net CPUE may be available in mid- to late May and would be used to determine the extent of restrictions implemented during the initial weeks of the traditional sockeye salmon season possibly involving adjustments in time, area, and mesh size. However, inseason assessment may cease if the run does not appear large enough to allow the additional handling of fish.

#### Sockeye Salmon

Section 11-B will open for directed sockeye salmon fishing on the third Sunday in June (June 17) likely for a two-day fishing period with an area restriction closing waters in Taku Inlet north of Point Greely and west of a line of longitude running mid-inlet from the latitude of Point Greely to a point where it intersects with the shoreline south of Grand Island. A six-inch maximum mesh size restriction and night closures will be in effect. The second opening will likely have identical restrictions to the first. The maximum mesh size restriction and night closures will be in effect. The second opening will likely have identical restrictions to the first. The maximum mesh size restriction and night closures will opening and area may be liberalized during the third opening to have only those waters in the northern portion of Taku Inlet closed (for example, north of Cooper Point). Subsequent openings will be based on inseason fishery performance and stock assessment information, but Taku Inlet will likely only open for two days through the fifth opening and waters north of Jaw Point will be closed for the fourth and fifth openings.

The District 11 fishery will be managed through mid-August primarily on the basis of sockeye salmon abundance. Run strength will be evaluated using harvest and CPUE data, and weekly inriver run size estimates derived from the Taku River fish wheel mark-recapture project. Contribution of enhanced stocks of sockeye salmon will be estimated inseason by analysis of salmon otoliths sampled from the commercial harvests. The age and stock compositions of the commercial harvest of wild sockeye salmon will be estimated after the fishing season by scale pattern and GSI analysis.

The returns of Port Snettisham enhanced sockeye salmon will be managed according to the *District 11: Snettisham Hatchery Salmon Management Plan.* The plan provides basic guidelines for managing enhanced sockeye salmon production from Port Snettisham including the following provisions in order of priority:

- 1. Sustainable production of wild sockeye salmon from Crescent and Speel lakes;
- 2. Manage Port Snettisham enhanced sockeye salmon returns in a manner that does not prevent achieving escapement goals or PST harvest sharing agreements for Taku River salmon stocks;

- 3. Assessment programs shall be conducted to estimate Port Snettisham wild sockeye salmon stock escapements and contributions of enhanced sockeye salmon to the District 11 commercial fishery;
- 4. Common property harvests in the Speel Arm SHA shall be conducted by limiting time and area to protect wild sockeye salmon returns.

Management of the fishery in Stephens Passage will focus on conservation of Port Snettisham wild sockeye salmon stocks, particularly in July. ADF&G intends to implement a six-inch minimum mesh size restriction in Section 11-B south of Circle Point in order to limit harvest rates on Port Snettisham wild sockeye salmon while allowing harvest of enhanced chum salmon returning to the Limestone Inlet remote release site. The mesh restriction in Section 11-B may be relaxed at the end of July or after the peak migration timing of Port Snettisham wild sockeye salmon stocks through Stephens Passage.

A personal use fishery will be allowed in Sweetheart Creek to ensure enhanced sockeye salmon returns to this site are fully utilized. Sweetheart Creek is naturally blocked to anadromous fish migration several hundred yards upstream from the mouth. The Sweetheart Creek personal use fishery will be open seven days per week starting June 1.

In order to avoid conflicts with sport fisheries, the District 11 drift gillnet fishery will not be open concurrent with the 2018 Juneau Golden North Salmon Derby (August 17–19) and will not open until Monday, August 20.

#### Pink Salmon

Pink salmon are harvested in Section 11-B incidental to sockeye and enhanced summer chum salmon fisheries. Fishing time for a directed pink salmon fishery in Section 11-C will depend upon the strength of pink salmon returns to lower Stephens Passage, Seymour Canal, and the northern portions of District 10. Returns will be closely monitored, but an opening in Section 11-C is highly unlikely based on parent-year escapements.

#### **Coho Salmon**

Beginning in mid-August, management of the Taku/Snettisham drift gillnet fishery will be based primarily on the run strength of returning Taku River coho salmon. In 2015, a point escapement goal of 70,000 Taku River coho salmon with a range of 50,000–90,000 fish was adopted by the TBR Panel. Similar to the past several seasons, Canada may harvest all coho salmon that pass above the border in excess of both the point escapement goal and a 5,000 fish assessment fishery. The District 11 fishery will be managed to provide a minimum above border run of 75,000 coho salmon. Inseason management will be based on evaluation of the fishery catch, effort, and CPUE relative to historical levels, inriver run size estimates from the Taku River mark-recapture project, and recovery of CWT Taku River wild and hatchery coho salmon in marine fisheries.

## LYNN CANAL FISHERY

#### INTRODUCTION

The Lynn Canal drift gillnet fishery operates in the waters of District 15 and is divided into three regulatory sections: 15-A (upper Lynn Canal), 15-B (Berners Bay), and 15-C (lower Lynn Canal). This fishery has historically targeted sockeye salmon from late June through September and fall chum and coho salmon from mid-August to mid-October throughout District 15. In

recent decades, the fishery has harvested substantial numbers of hatchery summer chum salmon in Section 15-C returning to DIPAC release sites at Boat Harbor and Amalga Harbor THAs. Section 15-B has only opened once in the last 10 years to target coho salmon.

#### **2017 OUTLOOK**

#### Chinook Salmon

The Chilkat River Chinook salmon stock was designated as a stock of concern at the 2018 BOF meeting after multiple years of failing to achieve escapement goals. The 2018 preseason total forecast of Chilkat River Chinook salmon is 1,033 large fish, below the escapement goal range of 1,750–3,500 large fish.

#### Sockeye Salmon

Wild sockeye salmon returning to the Chilkat and Chilkoot lakes make up the majority of sockeye salmon harvest in District 15 with additional contribution from the Chilkat River main-stem stock.

The parent years for the 2018 return to Chilkat Lake had an escapement of 108,000 in 2012 and 111,000 in 2013, which is close to the midpoint of the escapement goal range of 70,000–150,000. Zooplankton prey observations during the first summer of lake rearing for these brood years indicated above average abundances of Copepods and Cladocerans. The strong parent-year escapement and zooplankton abundance suggest an average to above average return of sockeye salmon to Chilkat Lake in 2018.

The parent-year escapement for the 2018 run to Chilkoot Lake was 46,000 sockeye salmon which is near the lower bound of the escapement goal range (38,000–86,000). Zooplankton prey observations during the first summer of lake rearing for this brood year and the pre-smolt estimate in the fall from hydroacoustic observations were above average. The low parent-year escapement and strong zooplankton and pre-smolt estimates suggest an average or below average run of sockeye salmon to Chilkoot Lake in 2018.

#### Chum Salmon

Approximately 1,984,000 summer chum salmon are forecasted to return to DIPAC release sites at Boat Harbor and Amalga Harbor THAs in 2018. The commercial harvest is expected to be 1,454,000 chum salmon. This forecast is slightly below the 10-year average but well above the long-term historical average. Summer chum salmon harvests are expected to be average to above average in 2018.

The parent-year escapement for the 2018 return of Chilkat River fall chum salmon was estimated to be 140,000 fish. Although this is still within the escapement goal range, it is below the midpoint and is lower than the 10-year average of 234,000. Fall chum salmon returns to the Chilkat River are expected to be average to below average for 2018.

#### Coho Salmon

The Chilkat River is the primary source of the commercial coho salmon harvest in Lynn Canal with some contributions from Berners River. The parent-year escapement for the 2018 return to the Chilkat River was estimated at 49,000 fish which is near the mid-point of the escapement goal range of 30,000–70,000 fish. The parent-year escapement for the 2018 return of coho salmon to the

Berners River was 12,500 fish which was above the escapement goal range of 4,000–9,200. Coho salmon returns to Lynn Canal are expected to be average.

#### Pink Salmon

Parent-year pink salmon escapements to District 15, and throughout the northern part of the region, were below average in 2016. Returns of pink salmon to the northern Southeast Alaska inside waters are expected to be low for 2018 as stocks continue the trend of low even-year abundance.

### MANAGEMENT GOALS

The overall management goal is to achieve desired spawning escapement levels while harvesting the available surplus for long-term maximum sustainable yield of all Lynn Canal salmon stocks. Chinook, chum, and coho salmon escapement to the Chilkat River drainage are observed through fish wheel catches and final sockeye salmon escapement to Chilkat and Chilkoot lakes are estimated by fish weir counts. Specific goals include:

- 1. Minimize Chinook salmon harvest in the drift gillnet fishery in Lynn Canal to increase escapement and attempt to meet the goal of 1,850–3,600 Chinook salmon in the Chilkat River in accordance with the Lynn Canal and Chilkat River Chinook Salmon Fishery Management Plan (5 AAC 33.384) and the Chilkat River and King Salmon River King Salmon Stock Status and Action Plan, 2018 (Lum and Fair 2018).
- 2. Achieve sockeye salmon escapement goals to Chilkat and Chilkoot lakes.
- 3. Achieve chum salmon escapement goals to Chilkat River.
- 4. Achieve coho salmon escapement goals to Chilkat River.
- 5. Harvest DIPAC hatchery-produced chum salmon available in the Boat Harbor THA while conserving wild Chinook and chum salmon and achieving sockeye salmon escapement goals.

### MANAGEMENT PLAN

The gillnet fishery in Lynn Canal, District 15, will begin at noon on June 17 (SW 25) and will be managed according to the *Lynn Canal and Chilkat River King Salmon Fishery Management Plan* (5 AAC 33.384) and the Board of Fisheries guidelines reported in the *Chilkat River and King Salmon River King Salmon Stock Status and Action Plan, 2018* (Lum and Fair 2018).

#### **Chinook Salmon**

Conservation measures implemented by ADF&G to minimize Chinook salmon retention include a 6-inch maximum mesh size restriction during SWs 25–27 (June 17-July 7) in Section 15-A and during SWs 25–26 (June 17-30) in Section 15-C. Additional conservation measures to protect inside rearing Chinook salmon will take place by imposing night closures between 10:00 p.m. and 4:00 a.m. during SWs 25–28 (June 17-July 14) in Sections 15-A and 15-C. Time and area restrictions outlined in following sections will also be implemented to minimize the catch of Chinook salmon.

#### Sockeye Salmon

Sockeye salmon are typically caught throughout District 15 starting in the first week of the season (SW 25). The Chilkoot Lake sockeye salmon are usually first to enter Lynn Canal followed by the Chilkat Lake stock which are present throughout the sockeye salmon

management season. Sockeye salmon are targeted in Section 15-A and are targeted or incidentally caught while targeting chum salmon in Section 15-C.

Area restrictions that will influence sockeye salmon harvest in Section 15-A include closing the area north of Eldred Rock Lighthouse during SWs 25–29 (June 17–July 21) by implementing and exceeding conservation measures of the *Lynn Canal and Chilkat River King Salmon Fishery Management Plan*, 2018 (Lum and Fair 2018). Furthermore, the area west of a line from Eldred Rock Light to a point two nmi from the eastern shoreline at 58°51.00' N. latitude, 135°12.77' W. longitude, will also be closed through SW 29.

In Section 15-C, area restrictions that may influence sockeye salmon harvest include opening for a maximum of two days in the "Postage Stamp" for SW 25 (June 17- 23) and a maximum of two days south of the latitude of Vanderbilt Reef in SW 26 (June 24-30). The "Postage Stamp" area is defined as:

The waters of Section 15-C south of the latitude of Vanderbilt Reef light and east of a line from Vanderbilt Reef Light to Little Island Light.

After SW 29 in Section 15-A and after SW 26 in Section 15-C, the Chilkat Chinook salmon run is mostly through the area and traditional Lynn Canal management practices will begin based on in-season observations of Chinook salmon returns to the Chilkat River and sockeye salmon returns to Chilkat and Chilkoot lakes.

#### **Chum Salmon**

Summer chum salmon returning to the DIPAC release site at the Boat Harbor THA are caught in Section 15-C starting in the first week of the season (SW 25). Area, time, and gear restrictions outlined in previous sections to minimize Chinook salmon retention will likely impact the fleet's ability to harvest chum salmon outside the Boat Harbor THA. The Chilkat River fall chum salmon run begins in late August. The run will be monitored by evaluation of harvest in the District 15 drift gillnet fishery and by fish wheel catches. If the indications are for a strong run, fishing area may be expanded to include the Chilkat Inlet in Section 15-A.

#### **Coho Salmon**

The Chilkat River coho salmon run begins in late August. The run will be monitored by evaluation of harvest in the District 15 drift gillnet fishery and by fish wheel catches. If the indications are for a strong run, fishing area may be expanded to include the Chilkat Inlet in Section 15-A.

#### Pink Salmon

Pink salmon start their return to Lynn Canal in the beginning of July and are caught incidentally when targeting sockeye salmon. If the pink salmon return is strong as indicated by aerial surveys and there are no sockeye salmon concerns, Lutak Inlet may be opened to target pink salmon.

## TERMINAL HARVEST AREA FISHERIES

During the 2018 season, drift gillnet terminal area fisheries can be expected in Deep Inlet, Neets Bay, Nakat Inlet, Anita Bay, and Boat Harbor to harvest salmon returning to DIPAC, NSRAA, and SSRAA enhancement facilities. Openings in the Speel Arm SHA are contingent on meeting the sockeye salmon escapement goal for Speel Lake.

### NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION TERMINAL AREA FISHERIES

The terminal hatchery fishery at Deep Inlet will be managed jointly with NSRAA and according to a management plan adopted by the BOF. Drift gillnet open fishing times and any modifications of the terminal fishing area will be announced by ADF&G news release prior to and during the fishing season.

#### Deep Inlet Terminal Harvest Area—[5 AAC 33.376]

NSRAA expects runs of 1,250,000 chum, 13,000 Chinook, and 66,000 coho salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2018. This season, 90,000 chum salmon are needed for broodstock. Cost recovery operations are not anticipated in 2018. The majority of the common property harvest can be expected to take place in the Deep Inlet THA by drift gillnet and purse seine gear, but some harvest is likely to occur outside the THA by troll and purse seine gear as well.

The Deep Inlet THA fishery will be managed in accordance with the *District 13: Deep Inlet Terminal Harvest Area Salmon Management Plan* (5 AAC 33.376). The plan provides for distribution of the harvest of hatchery-produced salmon between the purse seine and drift gillnet fleets. For the 2018 season, the time ratio of drift gillnet to purse seine openings is 1:2 and for the 2019–2020 seasons, the time ratio for gillnet to seine openings is 1:1. Trolling can occur when net fisheries are closed.

For the period May 1 to June 2, purse seine fishing is scheduled on Tuesday, May 1 from 12:01 a.m. to 12:00 a.m., and drift gillnet fishing is scheduled on Wednesday, May 2 from 7:00 a.m. to 7:00 p.m. On June 3–4 and June 10–11, the purse seine fishery will be open from 5:00 a.m. to 5:00 a.m.; on June 9 and June 16, the drift gillnet fishery will be open from 6:00 a.m. to 6:00 p.m. During the remainder of the season (June 17 to September 30) drift gillnet fishing is scheduled on Tuesdays and Wednesdays, and purse seine fishing is scheduled on Sundays, Thursdays, Fridays and Saturdays. The Deep Inlet THA west of 135°20.75′ W. longitude will be closed to purse seine and drift gillnet gear beginning with the first emergency order of the season through June 16. Details of the rotational fishery schedule for Deep Inlet were announced in a separate ADF&G News Release issued on April 4, 2018. When changes are necessary the revised schedule will be issued in a subsequent news release.

The NSRAA board has requested that the common property rotational fishery begin May 1 to allow common property harvest of Chinook salmon returning to the Medvejie Hatchery. NSRAA expects a return of 13,000 Chinook salmon to Medvejie Hatchery this season.

Regulations allow ADF&G to require that commercial drift gillnets fished in the Deep Inlet THA prior to July 1 have a minimum mesh size of six inches. In 2018, drift gillnet fishermen will be required to fish with a minimum mesh size of six inches prior to June 16. The purpose of the minimum mesh restriction is to reduce the harvest of local wild sockeye salmon returning to Silver Bay that are passing through the Deep Inlet THA.

The Deep Inlet THA is described as follows:

**Deep Inlet THA**: Deep Inlet, Aleutkina Bay, and contiguous waters south of a line from a point west of Pirates Cove at 56°59.35′ N. latitude, 135°22.63′ W. longitude to the westernmost tip of Long Island to the easternmost tip of Long Island to the westernmost

tip of Emgeten Island to the westernmost tip of Error Island to the westernmost tip of Berry Island to the southernmost tip of Berry Island to the westernmost tip of the southernmost island in the Kutchuma Island group to the easternmost tip of an unnamed island at 57°00.30' N. latitude, 135°17.67' W. longitude to a point on the southern side of the unnamed island at 57°00.08' N. latitude, 135°16.78' W. longitude and then to a point on the Baranof Island Shore at 56°59.93' N. latitude, 135°16.53' W. longitude with the following restrictions: all waters of Sandy Cove and Leesofskaia Bay will be closed. The Deep Inlet THA west of 135°20.75' W. longitude will be closed to purse seine and drift gillnet gear beginning with the first emergency order of the season through the third Saturday in June.

In order to promote full utilization of salmon, to prevent waste of salmon, to determine harvest patterns of incidentally harvested coho and sockeye salmon, and to allow full and accurate reporting of returns, the Deep Inlet THA fishery will be managed in 2018 by emergency order under authority of 5 AAC 39.325, *Full Retention and Utilization of Salmon*. This requires that all salmon harvested in net fisheries are retained, utilized, and reported on fish tickets whether they are sold or retained for personal use.

In early September, the Deep Inlet THA boundaries may be adjusted by ADF&G to reduce harvest of wild coho salmon returning to Salmon Lake or hatchery coho salmon returning to Medvejie Hatchery needed for broodstock. THA boundary adjustments to protect coho salmon will be based on historical run timing and inseason observations of abundance. Since voluntary compliance with reporting of coho salmon in the Deep Inlet Terminal Harvest Area fishery has in the past been poor, and ADF&G needs detailed information on coho and sockeye salmon harvest patterns, personnel from ADF&G or AWT may board some vessels and conduct hold inspections to ensure compliance, or department staff may board some vessels in order to sample marked coho for coded wire tags.

Fishermen are reminded to be respectful of the rights of property owners who reside in the vicinity of the Deep Inlet THA. If complaints occur and are substantiated during the 2018 season, ADF&G in consultation with NSRAA, may respond to complaints by changing scheduled fishing times or fishing boundaries of the Deep Inlet THA.

### SOUTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION TERMINAL AREA FISHERIES

The terminal hatchery fisheries at Neets Bay, Nakat Inlet, and Anita Bay will be managed jointly with SSRAA in accordance with management plans adopted by the BOF. The open drift gillnet fishing times will be announced by news release prior to, and during, the fishing season. These openings are subject to change during the season by emergency order if necessary.

#### Neets Bay Terminal Harvest Area—[5 AAC 33.370]

ADF&G in consultation with SSRAA, shall manage Neets Bay to include those waters of Neets Bay east of the longitude of the easternmost point of Bug Island to the closed waters at the head of the bay. From the second Sunday in June (June 11) through August 1, the Neets Bay THA shall include those waters of Neets Bay east of the longitude of Chin Point to the closed waters at the head of the bay.

In 2018, SSRAA is expecting a total run of 1,348,000 summer chum, 59,000 fall chum, 83,000 coho, and 18,000 Chinook salmon to return to Neets Bay.

The Neets Bay fishery will open to all gear beginning at 12:01 a.m., Tuesday, May 1 and ending at 12:00 noon, Sunday, June 10. During this time, the fishery will be open concurrently to drift gillnet, purse seine, and troll gear unless closed by emergency order. Beginning at 12:00 noon, June 14 through 12:00 noon, June 29, a rotational fishery according to the *District 1: Neets Bay Hatchery Salmon Management Plan* will be conducted for the drift gillnet and purse seine fleets. Details of the 2018 season fishing schedule at Neets Bay were announced in an ADF&G news release and can also be found on the SSRAA website.

For 2018, the net rotational fishing schedule will again be modified during SWs 24–26 allowing additional closures to conserve Unuk River Chinook salmon. This loss of time will coincide with the period when Unuk River Chinook salmon transit this area as evidenced by tag data. The open fishing area for the Neets Bay THA will also be restricted to only those waters east of the easternmost tip of Bug Island.

It is anticipated that SSRAA will conduct cost recovery operations throughout the summer in the Neets Bay THA and additional rotational fisheries will not occur until cost recovery and broodstock needs have been met. Additional fisheries in Neets Bay will open by emergency order in consultation with SSRAA.

#### Nakat Inlet Terminal Harvest Area—[5 AAC 33.372]

The Nakat Inlet THA includes the waters of Nakat Inlet north of Surprise Point at 54°49.10' N. latitude and west of 130°42.75' W. longitude. For 2018, 260,000 summer chum, 57,000 fall chum, and 22,000 coho salmon are expected to return to Nakat Inlet. Peak chum salmon harvests from these releases are expected between early July and early August for summer chum and between late August to mid-September for fall chum and coho salmon.

The Nakat Inlet THA will be open from June 1 to November 10 concurrently to drift gillnet and troll gear. The 500-yard stream closure regulation [5 AAC 39.290 (1)] will remain in effect.

#### Crystal Lake Terminal Harvest Area—[5 AAC 33.381]

The projected Crystal Lake Chinook salmon run is 3,000 adults, of which 1,700 fish are expected to reach the Wrangell Narrows-Blind Slough (District 6) terminal area. Under provisions of the *District 6: Wrangell Narrows-Blind Slough Terminal Harvest Area Salmon Management Plan*, the commercial fishery will be open to harvest 50% of the projected terminal run over 4,000 fish. Based on the forecast, there is not likely to be surplus available for commercial troll or drift gillnet harvest in the terminal area in 2018.

The total Crystal Lake Hatchery coho salmon run is expected to be 6,000 fish. An estimated 1,000 fish are expected to reach the Wrangell Narrows-Blind Slough terminal area. No commercial drift gillnet fishery is anticipated in the THA in 2018.

#### Anita Bay Terminal Harvest Area— [5 AAC 33.383]

Anita Bay THA consists of the waters west of a line from Anita Point at 56°13.68' N. latitude, 132°22.48' W. longitude to a point on the northern shore at 56°14.26' N. latitude, 132°23.93' W. longitude. From May 15 to June 1, the outer portion of Anita Bay will be closed north of line north and east of a line from 56°12.90' N. latitude, 132°24.50' W. longitude to 56°12.75' N. latitude, 132°23.50' W. longitude to mitigate potential harvest of wild Chinook salmon.

For 2018, 459,000 summer chum, 15,000 Chinook, and 10,000 coho salmon are predicted to return. The Anita Bay THA will open to harvest salmon by troll, drift gillnet, and purse seine from 12:01 a.m., Tuesday, May 15, through 12:00 noon, Saturday, November 10. A rotational fishery will begin for drift gillnet and purse seine fleets as described in the *District 7: Anita Bay Terminal Harvest Area Salmon Management Plan*. This rotational fishing period will be in place for the duration of the 2018 season. Details of this schedule were developed by SSRAA and are available on their website, ssraa.org, and by ADF&G news release.

### **DOUGLAS ISLAND PINK AND CHUM INC. TERMINAL AREA FISHERIES**

#### **Boat Harbor Terminal Harvest Area**

The Boat Harbor THA is defined as those waters within two nautical miles of the western shoreline of Lynn Canal south of the latitude of Danger Point at 58°41.73' N. latitude and north of a point 2.4 nmi north of Point Whidbey at 58°37.05' N. latitude.

The 2018 projection for the combined Amalga Harbor SHA and Boat Harbor THA enhanced chum salmon return is 1.98 million fish. The common property harvest of the total 2018 return is estimated to be 1.45 million chum salmon

Summer chum salmon returning to the DIPAC release site at the BHTHA are harvested starting in the first week of the season beginning on the third Sunday of June. Time and gear restrictions that may influence the harvest of hatchery chum salmon include opening the outside area of Boat Harbor for only two days and restricting mesh size to a maximum of 6-inches during SW 25–26 (June 17–June 30). Depending on aerial survey observations of wild chum salmon strength returning to the Endicott River, the Boat Harbor THA northern boundary may be reduced to the latitude of Danger point.

#### **Speel Arm Special Harvest Area**

The forecast total run of Snettisham Hatchery sockeye salmon in 2018 is 244,000 fish which is 143% of the 2017 total run of 171,000 fish. These fish will be principally harvested in the traditional District 11 commercial drift gillnet fishery. Common property fishery openings may occur during August in the Speel Arm SHA, which is located in the waters of Speel Arm north of 58°03.42' N. latitude. Timing of openings in the SHA will depend on DIPAC's progress toward broodstock goals and the sockeye salmon escapement into Speel Lake. DIPAC cost recovery efforts in the SHA during July will be limited to waters in the immediate vicinity of the hatchery where wild and hatchery stocks are well segregated. Fishery management decisions for the Speel Arm SHA will be made jointly by ADF&G and DIPAC. ADF&G and industry have formalized the notification procedure for any extended fishery openings in Speel Arm. The SEAK Drift Gillnet Task Force agreement specified:

- 1. That ADF&G include notice in the *Southeast Alaska Drift Gillnet Fishery Management Plan* that extended openings in Speel Arm could be expected on short notice once Speel Lake escapement goals are met;
- 2. That ADF&G include notice in the region-wide news release on or near the end of July that extended openings in Speel Arm could be expected on short notice once Speel Lake escapement goals are met;

3. If an announcement is made for extended fishing time in Speel Arm, ADF&G shall provide a minimum of six hours of notice from the time the fishery is announced to the time the fishery opens.

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## FISHERY CONTACTS

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The following is a list of telephone numbers that may be called during the gillnet fishing season to obtain recorded announcements concerning areas open to gillnet fishing:

| Ketchikan: | (907) 225-6870 |
|------------|----------------|
| Haines:    | (907) 766-2830 |

**TABLES AND FIGURES** 

| Fishery                              | Chinook <sup>a</sup> | Sockeye | Coho    | Pink      | Chum      | Total     |
|--------------------------------------|----------------------|---------|---------|-----------|-----------|-----------|
| District 1                           |                      |         |         |           |           |           |
| Traditional (Tree Point)             | 1,664                | 25,073  | 33,853  | 223,439   | 222,394   | 506,423   |
| Terminal Harvest Area (Neets, Nakat) | 1,984                | 924     | 9,506   | 16,704    | 116,223   | 145,341   |
| Annette Island                       | 1,039                | 5,200   | 29,273  | 150,878   | 187,729   | 374,119   |
| District 6                           |                      |         |         |           |           |           |
| Traditional (Prince of Wales)        | 1,521                | 45,005  | 49,382  | 302,033   | 234,349   | 632,290   |
| District 7                           |                      |         |         |           |           |           |
| Terminal Harvest Area (Anita Bay)    | 4,303                | 33      | 2,087   | 710       | 47,782    | 54,915    |
| District 8                           |                      |         |         |           |           |           |
| Traditional (Stikine)                | 3,818                | 14,282  | 13,592  | 49,027    | 177,119   | 257,838   |
| District 11                          |                      |         |         |           |           |           |
| Traditional (Taku/Snettisham)        | 1,080                | 113,614 | 15,988  | 230,195   | 885,661   | 1,246,538 |
| Terminal Harvest Area (Speel Arm)    | -                    | -       | -       | -         | -         | -         |
| District 13                          |                      |         |         |           |           |           |
| Terminal Harvest Area (Deep Inlet)   | 1,476                | 715     | 4,410   | 6,104     | 352,446   | 365,151   |
| District 15                          |                      |         |         |           |           |           |
| Traditional (Lynn Canal)             | 1,150                | 31,691  | 29,435  | 84,688    | 1,103,136 | 1,250,100 |
| Terminal Harvest Area (Boat Harbor)  | 55                   | 8,025   | 394     | 106,565   | 471,903   | 586,942   |
| Subtotals                            |                      |         |         |           |           |           |
| Traditional                          | 9,233                | 229,665 | 142,250 | 889,382   | 2,622,659 | 3,893,189 |
| Terminal Harvest Areas               | 7,818                | 9,697   | 16,397  | 130,083   | 988,354   | 1,152,349 |
| <b>Common Property Total</b>         | 17,051               | 239,362 | 158,647 | 1,019,465 | 3,611,013 | 5,045,538 |
| Annette Island Reserve               | 1,039                | 5,200   | 29,273  | 150,878   | 187,729   | 374,119   |
| Total                                | 18,090               | 244,562 | 187,920 | 1,170,343 | 3,798,742 | 5,419,657 |

Table 1.–Southeast Alaska commercial drift gillnet salmon harvest, in numbers, by area, harvest type and species, 2017.

<sup>a</sup>Chinook salmon harvest includes jacks.

| Year                 | Chinook <sup>a</sup> | Sockeye | Coho    | Pink    | Chum    | Total     |
|----------------------|----------------------|---------|---------|---------|---------|-----------|
| 2007                 | 2,057                | 68,170  | 29,890  | 360,986 | 389,744 | 850,847   |
| 2008                 | 4,059                | 34,915  | 97,599  | 275,654 | 319,718 | 731,945   |
| 2009                 | 4,922                | 70,607  | 68,522  | 174,052 | 339,159 | 657,262   |
| 2010                 | 3,302                | 64,747  | 99,081  | 597,138 | 458,622 | 1,222,890 |
| 2011                 | 4,661                | 91,825  | 36,183  | 357,811 | 566,508 | 1,056,988 |
| 2012                 | 4,024                | 64,394  | 73,576  | 217,281 | 757,675 | 1,116,950 |
| 2013                 | 4,483                | 55,948  | 111,133 | 763,434 | 329,680 | 1,264,678 |
| 2014                 | 4,473                | 57,192  | 116,437 | 763,838 | 274,202 | 1,216,142 |
| 2015                 | 3,347                | 29,173  | 58,004  | 157,016 | 820,271 | 1,067,811 |
| 2016                 | 3,110                | 41,288  | 50,021  | 608,351 | 448,724 | 1,151,494 |
| 2017                 | 3,648                | 25,997  | 43,359  | 240,143 | 338,617 | 651,764   |
| Average<br>2007–2016 | 3,844                | 57,826  | 74,045  | 427,556 | 470,430 | 1,033,701 |

Table 2.–Southeast Alaska annual Tree Point (District 1) traditional and terminal harvest areas (Nakat Inlet, Neets Bay) drift gillnet salmon harvest, in numbers, by species, 2007 to 2017.

<sup>a</sup> Chinook salmon harvest includes jacks.

Table 3.–Southeast Alaska annual Prince of Wales (District 6) traditional drift gillnet salmon harvest, in numbers, by species, 2007 to 2017.

| Year      | <b>Chinook</b> <sup>a</sup> | Sockeye | Coho    | Pink    | Chum    | Total   |
|-----------|-----------------------------|---------|---------|---------|---------|---------|
| 2007      | 2,144                       | 92,481  | 80,573  | 383,355 | 297,998 | 856,551 |
| 2008      | 1,619                       | 30,533  | 116,074 | 90,217  | 102,156 | 340,599 |
| 2009      | 2,138                       | 111,984 | 144,569 | 143,589 | 287,707 | 689,987 |
| 2010      | 2,473                       | 112,450 | 225,550 | 309,795 | 97,948  | 748,216 |
| 2011      | 3,008                       | 146,069 | 117,860 | 337,169 | 158,096 | 762,202 |
| 2012      | 1,853                       | 45,466  | 121,418 | 129,646 | 104,307 | 402,690 |
| 2013      | 2,202                       | 49,223  | 160,659 | 474,551 | 94,260  | 780,895 |
| 2014      | 2,092                       | 58,430  | 286,815 | 415,392 | 106,243 | 868,972 |
| 2015      | 2,723                       | 121,921 | 112,561 | 224,816 | 232,390 | 694,411 |
| 2016      | 2,094                       | 106,649 | 122,101 | 358,309 | 130,236 | 719,389 |
| 2017      | 1,521                       | 45,005  | 49,382  | 302,033 | 234,349 | 632,290 |
| Average   |                             |         |         |         |         |         |
| 2007–2016 | 2,235                       | 87,521  | 148,818 | 286,684 | 161,134 | 686,391 |

<sup>a</sup> Chinook salmon harvest includes jacks.

| Year      | <b>Chinook</b> <sup>a</sup> | Sockeye | Coho   | Pink    | Chum    | Total   |
|-----------|-----------------------------|---------|--------|---------|---------|---------|
| 2007      | 17,463                      | 70,580  | 19,880 | 39,872  | 177,573 | 325,368 |
| 2008      | 14,599                      | 35,679  | 34,479 | 18,105  | 81,876  | 184,738 |
| 2009      | 2,830                       | 36,680  | 30,860 | 27,010  | 190,800 | 288,180 |
| 2010      | 2,359                       | 32,737  | 42,772 | 58,610  | 51,005  | 187,483 |
| 2011      | 5,321                       | 51,478  | 20,720 | 65,022  | 142,526 | 285,067 |
| 2012      | 8,027                       | 21,997  | 20,100 | 16,374  | 240,569 | 307,067 |
| 2013      | 10,817                      | 20,609  | 43,669 | 116,026 | 103,365 | 294,486 |
| 2014      | 8,023                       | 19,808  | 30,184 | 33,830  | 84,771  | 176,616 |
| 2015      | 13,845                      | 22,896  | 30,153 | 35,926  | 166,009 | 268,829 |
| 2016      | 10,024                      | 70,143  | 22,146 | 35,250  | 200,653 | 338,216 |
| 2017      | 3,818                       | 14,282  | 13,592 | 49,027  | 177,119 | 257,838 |
| Average   |                             |         |        |         |         |         |
| 2007–2016 | 9,331                       | 38,261  | 29,496 | 44,603  | 143,915 | 265,605 |

Table 4.–Southeast Alaska annual Stikine River (District 8) traditional drift gillnet salmon harvest, in numbers, by species, 2006 to 2016.

<sup>a</sup> Chinook salmon harvest includes jacks.

Table 5.–Southeast Alaska annual Taku/Snettisham (District 11) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2007 to 2017.

|                      | •  | *  |   |   |   |
|----------------------|--|--|---|---|---|
| Chinook <sup>a</sup> | Sockeye  | Coho   | Pink  | Chum  | Total   |
| 1,452                | 112,241  | 22,394   | 100,375   | 590,169   | 826,631   |
| 2,193                | 116,693  | 37,349   | 90,162  | 774,095   | 1,020,492   |
| 6,800                | 62,070   | 36,615   | 56,801  | 918,350   | 1,080,636   |
| 1,685                | 76,607   | 62,241   | 132,785   | 488,898   | 762,216   |
| 2,510                | 163,896  | 28,574   | 344,766   | 667,929   | 1,207,675   |
| 1,291                | 140,898  | 24,115   | 193,969   | 566,741   | 927,009   |
| 1,224                | 207,231  | 51,441   | 127,343   | 726,849   | 1,114,088   |
| 1,471                | 126,738  | 54,186   | 29,190  | 291,409   | 502,994   |
| 1,150                | 83,431   | 23,572   | 296,575   | 475,456   | 880,184   |
| 595                  | 215,049  | 35,037   | 46,604  | 448,284   | 745,569   |
| 1,080                | 113,614  | 15,988   | 230,195   | 885,661   | 1,246,538   |
|                      |  |  |   |   |   |
| 2,037                | 130,485  | 37,552   | 141,857   | 594,818   | 906,749   |
|                      | 1,452<br>2,193<br>6,800<br>1,685<br>2,510<br>1,291<br>1,224<br>1,471<br>1,150<br>595<br><b>1,080</b> | 1,452         112,241           2,193         116,693           6,800         62,070           1,685         76,607           2,510         163,896           1,291         140,898           1,224         207,231           1,471         126,738           1,150         83,431           595         215,049           1,080         113,614 | 1,452         112,241         22,394           2,193         116,693         37,349           6,800         62,070         36,615           1,685         76,607         62,241           2,510         163,896         28,574           1,291         140,898         24,115           1,224         207,231         51,441           1,471         126,738         54,186           1,150         83,431         23,572           595         215,049         35,037           1,080         113,614         15,988 | 1,452         112,241         22,394         100,375           2,193         116,693         37,349         90,162           6,800         62,070         36,615         56,801           1,685         76,607         62,241         132,785           2,510         163,896         28,574         344,766           1,291         140,898         24,115         193,969           1,224         207,231         51,441         127,343           1,471         126,738         54,186         29,190           1,150         83,431         23,572         296,575           595         215,049         35,037         46,604           1,080         113,614         15,988         230,195 | 1,452         112,241         22,394         100,375         590,169           2,193         116,693         37,349         90,162         774,095           6,800         62,070         36,615         56,801         918,350           1,685         76,607         62,241         132,785         488,898           2,510         163,896         28,574         344,766         667,929           1,291         140,898         24,115         193,969         566,741           1,224         207,231         51,441         127,343         726,849           1,471         126,738         54,186         29,190         291,409           1,150         83,431         23,572         296,575         475,456           595         215,049         35,037         46,604         448,284           1,080         113,614         15,988         230,195         885,661 |

<sup>a</sup> Chinook salmon harvest includes jacks.

| Year      | Chinook <sup>a</sup> | Sockeye | Coho   | Pink    | Chum      | Total     |
|-----------|----------------------|---------|--------|---------|-----------|-----------|
| 2007      | 1,063                | 156,936 | 18,177 | 89,782  | 823,999   | 1,089,957 |
| 2008      | 659                  | 46,655  | 46,932 | 26,034  | 1,072,135 | 1,192,415 |
| 2009      | 681                  | 126,594 | 35,820 | 163,057 | 845,710   | 1,171,862 |
| 2010      | 871                  | 100,973 | 65,870 | 171,054 | 764,629   | 1,103,397 |
| 2011      | 1,178                | 63,788  | 33,776 | 508,930 | 1,115,821 | 1,723,493 |
| 2012      | 2,736                | 224,643 | 23,321 | 353,271 | 1,567,227 | 2,171,198 |
| 2013      | 1,148                | 122,103 | 68,009 | 127,703 | 1,509,501 | 1,828,464 |
| 2014      | 1,396                | 234,682 | 58,117 | 90,602  | 1,303,009 | 1,687,806 |
| 2015      | 523                  | 131,577 | 23,456 | 629,209 | 836,831   | 1,621,596 |
| 2016      | 475                  | 188,844 | 30,534 | 81,970  | 931,919   | 1,233,742 |
| 2017      | 1,205                | 39,716  | 29,829 | 191,253 | 1,575,039 | 1,837,042 |
| Average   |                      |         |        | ·       |           | ·         |
| 2007-2016 | 1,073                | 139,680 | 40,401 | 224,161 | 1,077,078 | 1,482,393 |

Table 6.–Southeast Alaska annual Lynn Canal (District 15) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2007 to 2017.

<sup>a</sup> Chinook salmon harvest includes jacks.

Table 7.-Performance of the Tree Point drift gillnet fishery sockeye salmon harvest under the 1999 PST agreement.

|                   |                            |                          | Cumulative:       |                 |                         |                           |
|-------------------|----------------------------|--------------------------|-------------------|-----------------|-------------------------|---------------------------|
| Year              | Nass River<br>Total Return | Nass River<br>Escapement | Nass River<br>AAH | Harvest (13.8%) | River Alaska<br>Harvest | +overage /<br>(-underage) |
| 1999              | 842,806                    | 200,000                  | 642,806           | 88,707          | 129,794                 | 41,087                    |
| 2000              | 625,982                    | 200,000                  | 425,983           | 58,786          | 46,305                  | 28,606                    |
| 2001              | 580,611                    | 167,258                  | 413,358           | 57,043          | 55,096                  | 26,659                    |
| 2002              | 1,403,976                  | 200,000                  | 1,203,975         | 166,149         | 90,553                  | -48,937                   |
| 2003              | 1,177,472                  | 200,000                  | 977,472           | 134,481         | 72,942                  | -110,886                  |
| 2004              | 986,095                    | 200,000                  | 786,095           | 108,482         | 110,340                 | -109,027                  |
| 2005              | 666,877                    | 200,000                  | 466,877           | 64,429          | 55,319                  | -118,137                  |
| 2006              | 775,112                    | 200,000                  | 575,112           | 79,365          | 47,948                  | -149,555                  |
| 2007              | 602,210                    | 164,745                  | 437,463           | 60,370          | 46,369                  | -163,555                  |
| 2008              | 380,397                    | 200,000                  | 180,397           | 24,895          | 24,359                  | <b>-</b> 164,091          |
| 2009              | 575,336                    | 200,000                  | 375,336           | 51,796          | 55,270                  | -160,618                  |
| 2010              | 438,941                    | 200,000                  | 238,941           | 32,974          | 26,613                  | -166,979                  |
| 2011              | 556,710                    | 200,000                  | 356,710           | 49,226          | 55,122                  | -161,083                  |
| 2012              | 476,818                    | 200,000                  | 276,818           | 38,201          | 38,983                  | -160,300                  |
| 2013              | 501,428                    | 200,000                  | 301,428           | 41,597          | 35,471                  | -166,426                  |
| 2014              | 549,685                    | 200,000                  | 349,685           | 48,257          | 29,023                  | -185,660                  |
| 2015              | 868,744                    | 200,000                  | 668,744           | 92,287          | 14,867                  | -263,080                  |
| 2016              | 442,420                    | 200,000                  | 242,767           | 33,454          | 14,388                  | -282,147                  |
| 2017 <sup>a</sup> | 362,540                    | 200,000                  | 162,540           | 22,431          | 12,444                  | -292,133                  |
| 2018 <sup>b</sup> | 483,000                    | 200,000                  | 283,000           | 39,054          | *                       | ,                         |

<sup>a</sup> Preliminary Information

<sup>b</sup> FOC (Fisheries and Oceans Canada) forecast

| Species                | Stock                  | Escapement<br>Goal Type | Escapement Goal<br>Range | Escapement Method             |
|------------------------|------------------------|-------------------------|--------------------------|-------------------------------|
| Sockeye <sup>a</sup>   | Chilkoot Lake Total    | Sustainable             | 38,000 to 86,000         | Weir Count                    |
| Sockeye <sup>a</sup>   | Chilkat Lake Total     | Biological              | 70,000 to 150,000        | DIDSON Count                  |
| Coho <sup>b</sup>      | Berners River          | Biological              | 4,000 to 9,200           | Peak Foot Count               |
| Coho <sup>c</sup>      | Chilkat River Combined | Biological              | 30,000 to 70,000         | Sum of Peak Foot Index Counts |
| Chinook <sup>d</sup>   | Chilkat River Combined | Biological              | 1,750 to 3,500           | Mark-Recapture Estimate       |
| Fall Chum <sup>e</sup> | Chilkat River Total    | Sustainable             | 75,000 to 250,000        | Fish wheel index              |

Table 8.-Biological and sustainable escapement goals for Lynn Canal salmon stocks by species and location.

<sup>a</sup>Eggers et al. 2009 <sup>b</sup>Shaul and Crabtree 2005 <sup>c</sup>Ericksen and Fleischman 2006

<sup>d</sup> Ericksen and McPherson 2004

<sup>e</sup>Heinl et al. 2014

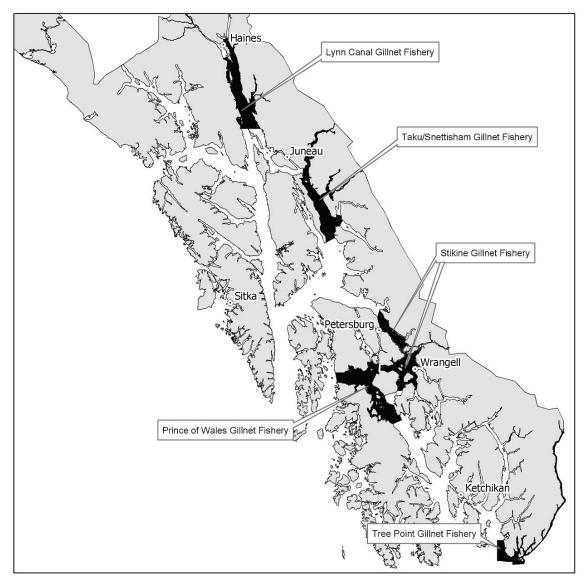


Figure 1.-Traditional drift gillnet fishing areas in Southeast Alaska.