Regional Information Report No. 1J17-04

2017 Southeast Alaska Drift Gillnet Fishery Management Plan

by

Dan Gray

Mark Sogge

Tom Kowalske

Scott Forbes

Bo Meredith

and

Aaron Dupuis

April 2017

Alaska Department of Fish and Game **Division of Commercial Fisheries**

Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the Système International d'Unités (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, and Special Publications. All others, including deviations from definitions listed below, are noted in the text at first mention, as well as in the titles or footnotes of tables, and in figure or figure captions.

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat or long
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

REGIONAL INFORMATION REPORT NO. 1J17-04

2017 SOUTHEAST ALASKA DRIFT GILLNET FISHERY MANAGEMENT PLAN

by

Dan Gray and Aaron Dupuis
Alaska Department of Fish and Game, Division of Commercial Fisheries, Sitka

Mark Sogge
Alaska Department of Fish and Game, Division of Commercial Fisheries, Haines

Scott Forbes
Alaska Department of Fish and Game, Division of Commercial Fisheries, Douglas

Tom Kowalske
Alaska Department of Fish and Game, Division of Commercial Fisheries, Wrangell

Bo Meredith
Alaska Department of Fish and Game, Division of Commercial Fisheries, Ketchikan

Alaska Department of Fish and Game
Division of Commercial Fisheries, Publications Section
802 3rd Street, Douglas, AK 99824

April 2017

The Regional Information Report Series was established in 1987 and was redefined in 2007 to meet the Division of Commercial Fisheries regional need for publishing and archiving information such as project operational plans, area management plans, budgetary information, staff comments and opinions to Board of Fisheries proposals, interim or preliminary data and grant agency reports, special meeting or minor workshop results and other regional information not generally reported elsewhere. Reports in this series may contain raw data and preliminary results. Reports in this series receive varying degrees of regional, biometric and editorial review; information in this series may be subsequently finalized and published in a different department reporting series or in the formal literature. Please contact the author or the Division of Commercial Fisheries if in doubt of the level of review or preliminary nature of the data reported. Regional Information Reports are available through the Alaska State Library and on the Internet at: http:/www.adfg.alaska.gov/sf/publications/

Dan Gray and Aaron Dupuis
Alaska Department of Fish and Game, Division of Commercial Fisheries,
304 Lake St. Rm. 103, Sitka, AK 99835-7563

Mark Sogge
Alaska Department of Fish and Game, Division of Commercial Fisheries,
Mile 1, Haines Highway, Haines, AK 99827-0330

Scott Forbes
Alaska Department of Fish and Game, Division of Commercial Fisheries,
802 3rd Street, Douglas, AK 99824

Bo Meredith
Alaska Department of Fish and Game, Division of Commercial Fisheries,
2030 Sea Level Drive, Suite 205 Ketchikan, AK 99901

Tom Kowalske
Alaska Department of Fish and Game, Division of Commercial Fisheries,
215 Front Street, Wrangell, AK 99929

This document should be cited as follows:
Gray, D., M. Sogge, T. Kowalske, S. Forbes, B. Meredith, and A. Dupuis. 2017. 2017 Southeast Alaska drift gillnet Fishery Management Plan. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No. 1J17-04, Douglas.

TABLE OF CONTENTS

Page

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF FIGURES

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 2017. 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, 2017.

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 2017.

For the recent 10-year period 2006 to 2015, an average of 474 Southeast Alaska (SEAK) drift gillnet limited entry permits were issued annually, of which an average of 88% were actively fished each year (Conrad and Gray *In Prep*). In 2016, 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 (1960–2015). In the last ten years the species composition of the drift gillnet harvest has been 60% chum, 23% pink, 9% sockeye, 7% coho, and <1% king salmon. Of the total commercial salmon harvest in Southeast Alaska, the most recent 10-year average drift gillnet fishery harvests have included 43% sockeye, 28% chum, 13% coho, 10% king, 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 2016 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 king salmon during the spring season; 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 king salmon began in 2005 after ceasing in the 1970s. District 8 was opened to directed Stikine River king salmon fisheries from 2005 through 2008, and limited fisheries in 2012 and 2016. The 2017 Stikine River king salmon preseason forecast does not allow for directed fisheries and there will likely be conservation actions in the early sockeye salmon fishery openings. In District 11, directed fisheries on Taku River king salmon occurred in 2005, 2006, 2009, and 2012. In 2012, conservative 12-hour openings were allowed in the first two weeks of the season based on the preseason forecast, however, subsequent inseason estimates of run size were too small to provide any further directed fishing opportunity. The 2017 Taku River preseason king salmon terminal run forecast is below the lower end of the escapement goal range resulting in no directed fisheries and likely more conservative actions in the early sockeye salmon openings.

SEAK king salmon stocks are currently experiencing a cycle of very low abundance. Over the past five years (2012–2016), the eleven monitored king salmon index systems did not meet escapement goals 45% of the time. In 2016, nine of the eleven monitored king salmon index systems were below their escapement goal ranges. In 2017, three of the six systems for which forecasts are developed are projecting a total run below their escapement goal ranges. Two of those systems, the Taku and Chilkat Rivers, are within the District 11 and District 15 drift gillnet fishing areas. The remaining three systems are forecasted for total runs within their escapement goal ranges. One of the those systems, the Stikine River in the District 8 drift gillnet area, has a terminal run size forecast below the midpoint of the biological escapement goal (BEG) range. In an effort to meet escapement in 2017 in SEAK systems, restrictions will be implemented in gillnet, seine, troll, sport, personal use, and subsistence fisheries throughout SEAK.

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 derives preseason forecasts for several specific stocks including king and sockeye salmon from Taku and Stikine Rivers. Private nonprofit hatchery operators also derive preseason forecasts for salmon returning to many 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 return 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 2017 Stikine River king salmon terminal run forecast is 18,300 large fish (large king salmon are greater than 659 mm MEF). The forecast generated by the Stikine River king salmon forecast model produced a terminal run size estimate of 24,734 fish. The preseason forecast has consistently overestimated the actual run size in recent years and this forecast was reduced by 26% to account for the average forecast error over the previous five years (based on data available at time of forecasting). Other considerations taken into account for reducing the model-produced forecast is the poor precision for estimating age-4 king salmon and the general poor performance of king salmon stocks throughout Alaska and northern British Columbia in recent years. Details on the management strategy will be explained in the Prince of Wales and Stikine Fisheries section of this plan.

The 2017 preseason terminal run forecast for Taku River large king salmon is 13,300 fish. Similar to the Stikine River, consistent overestimation of Taku River large king salmon run in recent years has been adjusted by reducing the model-produced forecast by the recent five-year average percent error in the forecast. The 2017 Taku River king salmon model-produced forecast of 18,100 large fish was revised by accounting for a 36% average error. The adjusted preseason forecast of 13,300 large king salmon does not allow for directed fisheries in either the U.S. or Canada on Taku River king salmon and both countries will likely be utilizing restrictions during early sockeye salmon openings. Inseason king salmon abundance estimates anticipated to be available near the end of May will help determine how restrictive initial sockeye salmon openings will be in 2017.

For 2017, the preliminary terminal run forecast for Stikine River sockeye salmon is 185,000 fish, which is an above average run. For comparison, the recent 10-year average (2007–2016) total Stikine sockeye run size is 168,000 fish. Based on a Canadian stock recruitment analysis, wild

sockeye salmon returns to the Taku River are expected to total 198,000 fish, higher than the recent 10-year average wild sockeye salmon terminal run size of 176,000 fish. Enhanced sockeye salmon returns to the Taku River are expected to total 17,000 fish, higher than the recent 10-year average of 10,000 fish. Chilkoot Lake sockeye salmon returns are expected to be average to above average and returns to Chilkat Lake are expected to be near average. Douglas Island Pink and Chum, Inc. (DIPAC) forecasts 236,000 enhanced sockeye salmon returning to Snettisham Hatchery in 2017.

The projected regionwide forecast of hatchery chum salmon returns for 2017 is 7.9 million fish. This includes 2.3 million fish to four DIPAC locations, 2.1 million fish to five Northern Southeast Regional Aquaculture Association (NSRAA) locations (0.2 million chum produced at the Sitka Sound Science Center), 3.1 million fish to four Southern Southeast Regional Aquaculture Association (SSRAA) locations, 0.5 million fish to Armstrong Keta Inc., and 0.2 million fish to the Sitka Sound Science Center. A portion of these returns above broodstock needs and cost recovery harvests 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 2.9 million fish per year over the recent 10-year period from 2006 to 2015, and during this period, chum salmon have accounted for 60% of salmon harvested.

Returns of wild coho salmon are not forecasted but are expected to be consistent with the recent-year averages. Alaska hatchery coho salmon contributions to drift gillnet fisheries in 2016 were estimated by hatchery operators at 67,000 fish (Stopha 2017), around 25% of total drift gillnet coho salmon harvests. The largest portion of this harvest was from Neets Bay Hatchery with substantial harvest from Macaulay Hatchery.

The SEAK pink salmon harvest forecast for 2017 is 43 million fish, with a range of 27 to 59 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 because of the uncertainty of salmon runs to the drift gillnet fishing areas. This management plan presents only 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.

The primary objectives for management of the 2017 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. Manage for a total Southeast drift gillnet king salmon harvest ceiling of 2.9% of the all-gear quota, exclusive of Alaska hatchery-produced fish;

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 escapements throughout the fishing area.

Past experience has demonstrated that management of salmon fisheries based only 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 water areas, 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. When they occur, directed king salmon drift gillnet fisheries in District 8 open on Mondays at 8:00 a.m. and District 11 fisheries open on Mondays at 12:01 p.m., except following the Memorial Day Holiday when these fisheries open on Tuesday. Also to reduce gear conflicts, commercial fishing in District 8 will begin on Mondays for the first two weeks of sockeye salmon management. Districts 6 and 8 are managed together due to their proximity; the District 6 weekly start day will be Monday for the first two weeks 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 2017 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 an open commercial salmon fishing period in the Southeastern Alaska Area.

U.S./CANADA PACIFIC SALMON TREATY

The Pacific Salmon Treaty (PST) will 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.

KING SALMON

For 2016, the all-gear PST king salmon allocation is 209,700 Treaty king salmon based on the preseason Abundance Index of 1.27. The 2017 drift gillnet Treaty king salmon allocation is 6,080 fish. The need for management measures to comply with the drift gillnet harvest quota for king salmon will depend on inseason evaluation of king salmon catch rates relative to the 2.9% drift gillnet allocation of the Treaty fish harvest ceiling [5 AAC 29.060]. If the need arises, nighttime fishing closures may be implemented in certain areas to reduce the incidental catch of immature, “feeder” king salmon. Only historic base level catches in Districts 8 and 11 will be counted towards the PST fish ceiling when directed fisheries occur.

Terminal king 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 2017. 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]. Due to a very low forecast for Chilkat River king salmon in 2017, the District 15 drift gillnet fishery will be managed with time and area restrictions that exceed the provisions listed in the plan.

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.

2017 OUTLOOK

Chum Salmon

Runs of summer chum salmon in southern SEAK were well above expectations in 2016, with good escapements to many of the index streams in the subregion. The index count of 90,000 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 19,700 summer chum salmon at Fish Creek near Hyder was below the long-term average of 24,200 fish (1971–2015) but was the second largest escapement since 2006. In 2012, ADF&G began conducting helicopter surveys in key chum salmon index streams in the Ketchikan area. These surveys will again be conducted in 2017 and will focus on the peak of the summer chum run timing which occurs in late July to mid-August. This survey method greatly enhances the accuracy of chum salmon counts at a time when large numbers of pink salmon make it difficult to enumerate other species from a fixed-wing aircraft.

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 2017, the bilateral Northern Panel and the Northern Boundary Technical Committee met and summarized the final run reconstruction of the Nass River for 2015. Preliminary reports indicate that the total sockeye salmon return to the Nass River in 2016 was 438,311 fish. That allowed for a harvest of 32,887 Nass River sockeye salmon at Tree Point in 2016. Total sockeye harvest at Tree Point for 2016 was 40,000 sockeye salmon and of these, 14,388 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 (DFO) has a preseason expectation for 2017 returns of 454,000 Nass River sockeye salmon. If the forecast is accurate, then the AAH for Tree Point will be 35,000 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 2017. Information concerning SSRAA forecast returns is included under the THA Fisheries section of this plan.

Pink Salmon

Pink salmon returns are expected to be strong to southern SEAK in 2017. If the actual returns are as forecasted, the Tree Point drift gillnet fishery may receive two-, four-, and five-day fishing weeks during periods 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 16, 2017) 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 2017 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 18, 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 16 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, Tree Point drift gillnetters 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 the strength of the pink salmon run. 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, 2017.

Hugh Smith Lake Sockeye Salmon

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

1. 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. The harvest of terminal hatchery runs to Crystal Lake and Anita Bay will be discussed in the THA fisheries portion of this management plan.

2017 OUTLOOK

King Salmon

The preseason forecast for Stikine River large king salmon is 18,300 fish, which is insufficient to allow directed fisheries in District 8. Inseason run estimates are produced beginning mid to late May. If the inseason abundance estimates indicate available U.S. Allowable Catch (AC) then directed Stikine king salmon fisheries could occur. Additionally, 10,800 enhanced king salmon returning to the Anita Bay THA are expected to contribute to the District 8 gillnet harvest.

Sockeye Salmon

The 2017 preseason forecast for Stikine River sockeye salmon is 185,000 fish and is above average (168,600 fish); the forecast includes 110,000 Tahltan Lake (58%), 24,000 enhanced Tuya Lake (13%), and 51,000 mainstem (30%) 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 2–July 8). During an average or above average Tahltan Lake run, substantial numbers of sockeye could be present as early as SW 25 (June 18–24) and as late as SW 31 (July 30– August 5).

Sockeye salmon stocks returning to other local area streams are expected to be average based on parent-year escapements with the exception of the McDonald Lake stock. Sockeye salmon returns to McDonald Lake have generally been poor in recent years. Three of the past four years have been below goal, with two of those years being the lowest escapements in the past 30 years.

Pink Salmon

Pink salmon typically begin entering District 6 in substantial numbers near the end of July. Pink salmon returns to District 6 are expected to be good, as parent-year escapements to all but one of the four stock groups were within or above target ranges. Pink salmon returns to District 8 are expected to be good based on parent-year escapement.

Chum Salmon

In Districts 6 and 8, there is no direct management of chum salmon although 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 481,000 summer chum, which is 79,000 fewer than 2016. Chum salmon returning to Anita Bay

typically peak from SW 28 through SW 31 (July 9–Aug 15). Summer chum salmon production from Ketchikan area hatcheries is 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 2017 are expected to be near average. Forecasted returns to Neck Lake and Burnett Inlet are 62,000 and 22,000 fish, respectively. The forecast for the Anita Bay coho salmon return is 15,000 fish, similar to the return in 2016. Wild coho salmon returns are expected to be near the long-term average. Starting in SW 35 (August 27–September 2) 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 2017 season are as follows:

1. Achieve king 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 king 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

King Salmon

The 2017 preseason forecast does not allow for directed king salmon fisheries in District 8. It is anticipated there will not be any directed fisheries in 2017 based on recent trends of Stikine River king salmon abundance and trends in king salmon abundance throughout SEAK. However, in the event that reliable inseason run size estimates indicate the run would provide for a U.S. AC, directed king salmon fisheries in District 8 could be initiated. Directed fisheries in District 8 would be initiated in order of priority and/or expected harvest levels beginning with the U.S. Federal Stikine River subsistence fishery, followed by liberalization of the sport fishery, and lastly, the opening of commercial fisheries.

The District 8 directed drift gillnet fishery will not open in early May and there will likely be restrictions implemented during the sockeye salmon fishery. The extent of the restrictions during the sockeye salmon fishery will be dependent on inseason run size estimates. If the inseason run size estimates produce a U.S. AC large enough to warrant directed commercial fisheries, and the gillnet fishery were to proceed, gillnets would be restricted to 7-inch (178 mm) minimum stretched mesh, 60 meshes deep, and 300 fathoms (549 m) long. Gillnet openings would occur on Mondays at 8:00 a.m., unless fishing occurs during the week of Memorial Day (week of May

28), in which case the opening would occur on Tuesday at 8:00 a.m. Weekly openings before the second Monday in June would be limited to a maximum of 4 days per week and would not occur on a weekend or state or federal holiday.

In addition, area closures will be implemented by regulation and emergency order. There are four areas that would be closed for the duration of a directed king fishery in regulation: Babbler Point, Wrangell Harbor, Bear Creek, and Point Frederick to Beacon Point. If the gillnet fishery were to open for two or more days, an additional area would close – Woodpecker Cove and "The Nose" on Woronkofski Island. These closures are designed to provide sport fishermen with exclusive fishing areas without interference from commercial drift gillnet gear and/or to provide increased protection for steelhead returning to Petersburg Creek and Bear Creek on Mitkof Island. The primary additional area restriction that would likely be utilized for the duration of a directed king salmon opening is the "old Stikine closure line" which prevents fishing on or near the Stikine River delta. Closed waters will be identified by news release prior to each opening.

When directed fisheries occur, drift gillnet fishermen are asked to notify management biologists, who will be monitoring the fishery, of any incidence of steelhead and any retained steelhead must be recorded on fish tickets.

King salmon less than 28 inches long that are harvested in the commercial drift gillnet fisheries may be retained and sold. King salmon less than 28 inches long and those of Alaska hatchery origin, will not be counted against the Alaska all gear king salmon allocation. ADF&G will sample the harvest to identify hatchery origin, size composition, and age composition of the harvest.

The preseason forecast does not provide Canada with an AC. Canada will initially not be prosecuting a directed commercial king salmon fishery and will forego the assessment fishery. The harvest sharing agreement in the PST is based on a sliding scale. During large returns of king salmon to the Stikine River, the U.S. has a larger share of the Total Allowable Catch (TAC). During smaller returns, Canada has a larger share of the TAC. Additionally, the PST allows for 1,400 Stikine River king salmon to be harvested in an assessment fishery when the inseason forecast results in a small or no Canadian AC. When Canada is prosecuting a directed king salmon fishery the assessment fishery is typically not necessary. Since the preseason forecast is for a terminal run size below the midpoint of the EGR and just above the point goal, Canada will not prosecute the assessment fishery this season in an effort to reduce the overall harvest of Stikine River king salmon. Inseason assessment will be based solely on the Kakwan Point tagging project.

Sockeye Salmon

Districts 6 and 8 sockeye salmon fishery will open on Monday, June 19. Both districts may open by regulation as early as the second Monday in June (June 12). However, with an expected poor run of Stikine River king salmon, 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 one week, implementing a six-inch maximum mesh size, limiting fishing time, and reducing fishing area. This initial opening is expected to be 48 hours, but may be up to 72 hours based on expected or observed effort and the latest inseason run size estimate for Stikine River king salmon. Starting June 25, Districts 6 and 8 will revert to Sunday openings for the remainder of the season.

Due to the expected return of Tahltan Lake and mainstem sockeye salmon, fishing time may be more liberal than in recent years and similar to 2016. If the Tahltan Lake component of the run appears to be weaker than forecast, a more conservative management approach may limit fishing time in District 8 and fishery extensions in District 6 would likely not occur. In the event that inseason estimates of mainstem sockeye salmon fall below expectations, more conservative management actions may be needed during SW 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.

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.

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 escapements were below the SEG in five of the seven years from 2002 through 2008. Given this history, ADF&G recommended McDonald Lake sockeye salmon as a stock of concern as defined by the Sustainable Salmon Fishery Policy. An Action Plan for this stock was approved by the BOF in 2009. This plan limited fishing time to two days per week when McDonald Lake sockeye salmon are transiting through District 6 during SW 29 through 31. The McDonald Lake sockeye salmon stock was removed from stock of concern status by the BOF in 2012 due to improved escapements. However, the SEG has not been met for three of the past five years. Recent stock composition analysis indicates that McDonald Lake sockeye salmon are most prevalent in the District 6 fishery in SW 29–32 with the peak harvest occurring in SW 30 and 31. Due to low escapements, fishing time will be limited to 2 days in SW 30 and 31 and not more than 3 days in SW 29 and 32. Fishing time in SW 29 and 32 will be determined by expected or observed effort levels.

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 as a whole were good. 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. Management of the District 6 fishery will be based on wild coho stocks. Crystal Lake Hatchery, Burnett Inlet 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.

Screen Island Shore Drift Gillnet

Regulation 5 AAC 33.310(c)(2)(B), *Fishing seasons and periods for net gear*, allows drift gillnetting along the Screen Island shoreline of Etolin Island in Section 6-D. Specifically, this area encompasses those waters of Section 6-D west of a line from Point Nesbitt (56°13.92′ N. lat., 132°52.32′ W. long.); to Mariposa Rock Buoy (56°10.67′ N. lat., 132°44.35′ W. long.) to the northernmost tip of Point Harrington (56°10.27′ N. lat., 132°43.56′ W. long.) to a point on the shore of Etolin Island at 56°09.60′ N. lat., 132°42.70′ W. long. to the southernmost tip of Point Stanhope (56°00.69′ N. lat., 132°36.46′ W. long.). Fishing may be allowed from the second Monday in June (June 12) through the first Saturday in August (August 5), and from the first Sunday in September (September 3) until the season is closed. During these times, drift gillnetting is allowed during the same periods that the adjoining waters of Section 6-C are open.

There may be additional opportunity for fisherman to utilize the Screen Island area for pink salmon in August. Regulation 5 AAC 33.359, *Section 6-D Pink Salmon Management Plan*, was adopted by the BOF in March 2015 and allows drift gillnet fishing in the Screen Island portion of Section 6-D during regular drift gillnet openings after the first Saturday in August and before the first Sunday in September, if this area has been or will be open to purse seining. During these occasions, the gillnet fishery will open after purse seine closes, and will close at 11:59 p.m. the day before the next scheduled purse seine opening, or when the regular gillnet opening closes, whichever comes first. Drift gillnet fishermen wanting to fish in the Screen Island portion of Section 6-D during the month of August will need to closely monitor purse seine and subsequent drift gillnet news releases during this period as fishing opportunities may be scheduled with little advance notice.

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. Directed king salmon fisheries may occur in District 11 when Taku River king salmon run strength is sufficient.

2017 OUTLOOK

King Salmon

The 2017 preseason forecast of 13,300 Taku River large king salmon does not provide any AC for either U.S. or Canadian directed fisheries. DIPAC forecasts returns totaling 3,800 hatchery king salmon from their smolt release sites at Gastineau Channel, Auke Bay, Fish Creek, and Lena Cove.

Sockeye Salmon

The terminal run of wild Taku River sockeye salmon in 2017 is expected to be 198,000 fish, above the recent 10-year average of 176,000 fish. This forecast is based on stock recruitment analysis and recent trends in ocean survivals. The 2012 main parent-year escapement of 120,000 wild fish and the 2013 parent-year escapement of 76,000 wild fish were above and within 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 2017.

The Speel Lake escapement goal was revised in 2014 to a SEG of 4,000–9,000 sockeye salmon. Both the 2012 and 2013 parent-year escapements through the Speel Lake weir were within the revised range, at 5,681 and 6,427 fish, respectively. 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 2017.

The 2017 DIPAC forecast for enhanced sockeye salmon returning to Snettisham Hatchery is 236,000 fish, 83% of last year's total return of 284,000 fish.

Chum Salmon

In 2017, 667,000 Gastineau Channel and 128,000 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 forecast to be 401,000 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 above average in 2017. Parent-year pink salmon escapements to District 11, and throughout the northern part of the region, were above average in 2015. The total number of pink salmon counted through the Taku River Canyon Island fish wheels in 2015 was 176% of the recent ten odd-year average indicating well above average escapement to the Taku River.

Coho Salmon

The 2017 run of Taku River coho salmon is expected to be above average. The total run forecast, based on the relationship between smolt trapping CPUE from 2016 to historical CPUE data and applying average marine survival, is 184,000 adult fish, equating to an inriver run of 117,000 coho salmon. This compares to a recent 10-year average inriver run of 99,000 fish. DIPAC projects a 2017 return of 50,000 hatchery coho salmon from their smolt releases into Gastineau Channel.

MANAGEMENT GOALS

Management goals for the 2017 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. Monitor the incidental harvest of king salmon to stay within the BOF Southeast drift gillnet allocation of 2.9% of the Treaty king salmon quota;
3. Manage the fishery consistent with current provisions of the PST;
4. Maximize the harvest of hatchery-produced chum salmon returning to Limestone Inlet while minimizing the incidental harvest of Port Snettisham wild sockeye salmon;
5. Manage the return of Port Snettisham enhanced sockeye salmon consistent with the *District 11: Snettisham Hatchery Salmon Management Plan* (5 AAC 33.378);
6. Manage the Speel Lake sockeye salmon run to achieve an escapement to the lake between 4,000 and 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 king, sockeye, and coho salmon through the 2017 fishing season are specified in the annex.

King Salmon

The preseason forecast is below the lower end of the escapement goal range and requires a conservative management approach for the 2017 Taku River king 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 likely involving adjustments in time, area, and mesh size. However, inseason assessment may cease if the run does not appear large enough to sustain this additional handling of fish.

Sockeye Salmon

Section 11-B will open for directed sockeye salmon fishing on the third Sunday in June (June 18) likely for a two-day fishing period with high potential for time, area, and mesh size restrictions. A similar but lesser extent of these restrictions may occur in the second week of the sockeye salmon management period depending on the need for additional king salmon conservation. Subsequent openings will be based on inseason fishery performance and stock assessment information.

The District 11 fishery will be managed through mid-August primarily on the basis of sockeye salmon abundance. Run strength will be evaluated using fishery catch 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. The department intends to implement a six-inch minimum gillnet 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 2017 Juneau Golden North Salmon Derby (August 11–13) and will not open until Monday, August 14.

Pink Salmon

Pink salmon will be 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 and if surpluses are present, openings may occur in late July through August.

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. In 2016, CWT recoveries indicated that 21% of the District 11 drift gillnet coho salmon harvest was of DIPAC origin. With significant DIPAC enhanced coho salmon returns forecasted in 2017, increased opportunity may be available to target these fish.

LYNN CANAL FISHERY

INTRODUCTION

The Lynn Canal drift gillnet fishery operates in the waters of District 15. The district is divided into three regulatory sections: 15-A (upper Lynn Canal), 15-B (Berners Bay), and 15-C (lower Lynn Canal). The Lynn Canal drift gillnet fishery targets sockeye, summer chum, pink, coho, and fall chum salmon. King salmon are taken incidentally.

Historically, this fishery targets sockeye, coho, and fall chum salmon from June through late September. In recent decades, the fishery has targeted large returns of hatchery chum salmon originating from remote hatchery release projects at Amalga Harbor and Boat Harbor.

The primary sockeye salmon stocks originate from Chilkat Lake, Chilkoot Lake, Berners Bay rivers, and mainstem spawning areas of the Chilkat River. Hatchery and wild summer chum salmon are harvested from late June through early August. Fall chum and coho salmon are targeted from September through early October. The primary fall chum salmon stocks originate in the Klehini and Chilkat rivers. Major coho salmon stocks originate from the Chilkat and Berners Bay river systems.

The Chilkoot River weir and Chilkat River fish wheel stock assessment projects will be operational beginning in the first week of June. Sockeye salmon escapement to Chilkat Lake will be assessed with a DIDSON (dual frequency identification sonar) system beginning in mid-June. This equipment has enabled department crews to monitor Chilkat Lake salmon escapement during flow reversals, weather events, and during periods of high boat traffic. Total escapement for Chilkat Lake sockeye salmon is determined by this project.

2017 OUTLOOK

King Salmon

The 2017 preseason inriver abundance forecast for large (≥ age 1.3) Chilkat River king salmon is estimated to be 634 fish, well below the inriver abundance goal range of 1,850–3,600 fish.

Sockeye Salmon

An average return of Chilkat Lake sockeye salmon is expected in 2017. This forecast is based on parent-year escapements, limnological data, and recent trends in ocean survival. Escapements during parental years were below the BEG in 2011 (64,000 fish) and above the midpoint of the BEG in 2012 (122,000 fish). Based on recent averages (2007–2016), about 35% of the 2017 Chilkat Lake sockeye salmon return will be composed of fish from the 2011 brood year and 58% from the 2012 brood year. Assuming the midpoint of the escapement goal range (110,000 fish) produces an average return, the return from the above midpoint escapement in 2012 will likely be balanced by the low escapement in 2011, resulting in an average return. Chilkat Lake zooplankton abundance levels were average to above average during the primary rearing years for the 2017 sockeye salmon return, indicating that the fish returning experienced favorable lake rearing conditions. The age composition of the 2016 run of 2-ocean age fish was about the same as the previous 10-year average and may indicate an average return of 3-ocean age fish in 2017.

Based on parent-year escapement, the 2017 Chilkat River mainstem sockeye salmon run is expected to be below average. Mark-recapture estimates of the Chilkat River mainstem sockeye salmon escapements in 2012, 2013, and 2014 (the dominant parent years), were 48,000, 19,000 and 41,000 fish, respectively. Escapement estimates were above the historical average of 38,800 fish for the 2012 and 2014 years but well below average in 2013. The dominant age classes for this run are age-0.2 (19%), age-0.3 (47%), and age-1.3 (26%) fish. With a low escapement (19,000 fish) in the parent year for the most dominant age class, the total return of Chilkat River mainstem likely below average in 2017.

Returns of Chilkoot Lake sockeye salmon in 2017 are expected to be average to above average. This forecast is based on parent-year escapements, limnological data, an annual hydroacoustic survey, and recent trends in ocean survival. The Chilkoot Lake sockeye salmon escapement during the dominant parental brood year (2012) for the 2017 return was 114,000 fish, well above the SEG range of 38,000–86,000 fish. It is possible that this above goal escapement negatively influenced the productivity of the lake. Zooplankton abundance during 2013, the year the majority of the fry for the 2017 adult return reared in the lake, declined relative to the previous three years. The depressed zooplankton abundance may indicate the forage supply for rearing Chilkoot Lake sockeye salmon juveniles was overtaxed. A hydroacoustic survey of the lake in the fall of 2013 revealed the number of presmolt sockeye juveniles estimated in the lake that year declined relative to the previous five years, possibly indicating a lower number of sockeye smolt emigrating to salt water in the spring of 2014. The composition of age-1.2 fish in the 2016 escapement (2.0%) was well below average (16.8%) and may indicate a weakness in the return of age-1.3 fish in 2017.

An average run of Berners Bay sockeye salmon is expected in 2017. Berners Bay rivers and Chilkat River mainstem sockeye stocks share similar average age composition. Total escapement estimates are not available for Berners Bay sockeye salmon systems as escapements are assessed by aircraft survey. Peak aerial escapement estimates to Berners Bay streams were below average

in 2012 and 2014 and well above average in 2013, the dominant brood years for the 2017 sockeye run.

Summer Chum Salmon

The majority of the summer chum salmon production in the district is from hatchery releases from the Amalga Harbor Special Harvest Area and the Boat Harbor Terminal Harvest Area (BHTHA) by Douglas Island Pink and Chum Inc. (DIPAC). DIPAC has been enhancing the chum salmon returns to Lynn Canal since 1987. The preseason total run forecast for enhanced chum salmon to Lynn Canal is 1.48 million fish, with the common property share estimated to be 1.08 million fish. The expected total return is well below the recent average of 2.11 million fish. Separate run estimates by release site are not possible as all chum salmon released have the same thermal mark.

Smaller numbers of wild summer chum salmon are produced from local area streams such as Sawmill Creek and other Berners Bay rivers on the eastern side of Lynn Canal. The Endicott, Beardslee, and St. James Bay rivers on the western side of Lynn Canal are also important contributors to the wild summer chum harvest in the drift gillnet fishery. These streams are part of the northern southeast inside index stream group.

The northern southeast inside summer chum salmon index counts during the important brood years (2012 and 2013) for the 2017 returns were 177,000 and 278,000 fish, respectively. These index counts were above the lower-bound SEG of 119,000 fish. Based on parental-year escapement counts, the wild summer chum salmon run in 2017 may be above average.

Fall Chum Salmon

The 2017 run of Chilkat River drainage fall chum salmon stock is expected to be near the recent average. The Chilkat River fish wheel counts are used as a means to estimate the total drainage-wide escapement of chum salmon. The results of a mark-recapture study conducted from 2002 to 2005 indicated that the total fish wheel catch is 1.55% of the total number of fall chum salmon returning to the Chilkat River drainage. The total drainage-wide estimated escapement in 2013 (the dominant brood year for the 2017 return), based on mark-recapture index methods, was 165,000 chum salmon. This estimate is below the recent average, but within the SEG range of 75,000 to 250,000 fish. The peak aerial escapement survey count in 2013 was only 2,000 chum salmon, well below the recent 10-year average peak aerial escapement count of 33,000 fish. The aerial counts are highly dependent on water levels and clarity and are not considered a reliable indicator of total escapement. A conservative approach will be implemented in the 2017 fall season to ensure escapements of Chilkat River drainage fall chum salmon are within the escapement goal range.

Coho Salmon

The Chilkat River drainage and Berners Bay coho salmon returns are expected to be average in 2017. Coho salmon systems in the district include the Chilkat River, Berners River, and Chilkoot River, with the Chilkat River being the primary source of the commercial harvest in Lynn Canal. Parent-year survey counts on the Chilkat River index streams resulted in escapement estimates in 2013 and 2014 of 52,000 and 132,000 fish, respectively. The 2013 escapement was well within the BEG range of 30,000–70,000 fish for the Chilkat River, while the 2014 escapement significantly exceeded the range. The 2013 and 2014 Chilkat River fish wheel catches of 1,400 and 4,800 coho were, respectively, below and above the 2003–2012 average catch of 2,400 coho

salmon. The 2013 and 2014 coho salmon escapements to Berners Bay of 6,300 and 15,500 fish, respectively, were within the BEG of 4,000–9,200 fish in 2013, but exceeded that range in 2014.

Pink Salmon

The department is projecting a strong return of pink salmon to SEAK in 2017. If returns of pink salmon to Lynn Canal are as expected, the department will consider opening areas within District 15 to harvest excess pink salmon.

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. Escapement to Chilkoot Lake is monitored by a weir located on the outlet of the lake. Escapements to Chilkat River and Chilkat Lake are monitored inseason using fish wheels operated in the lower Chilkat River, with the final Chilkat Lake sockeye salmon count determined by the DIDSON sonar. The Chilkat and Klehini rivers chum salmon estimate is based on an index of the fish wheel count. Other stocks in the general Lynn Canal area are monitored by aerial surveys, foot surveys, or mark-recapture methods. Specific management goals for the 2017 Lynn Canal drift gillnet fishery and formal escapement goals are as follows:

1. Achieve an escapement of 1,750–3,500 three-ocean age and older king salmon to the Chilkat River.
2. Achieve an escapement of 38,000–86,000 (weir count) sockeye salmon to Chilkoot Lake.
3. Achieve an escapement of 70,000–150,000 sockeye salmon to Chilkat Lake. The final escapement will be derived from DIDSON counts at the outlet of Chilkat Lake.
4. Achieve an escapement of 75,000–250,000 fall chum salmon to the Chilkat River.
5. Achieve a peak foot escapement count of 4,000–9,200 coho salmon to Berners River.
6. Achieve a peak index stream count for Chilkat River drainage coho salmon that corresponds to a total escapement of 30,000–70,000 fish.
7. Provide for sufficient chum, coho, and pink salmon spawning escapements to the Chilkat, Chilkoot, and Berners rivers and other Lynn Canal systems while harvesting those fish in excess of escapement needs.
8. Harvest all DIPAC hatchery-produced chum salmon available in the Boat Harbor Terminal Harvest Area while conserving wild stock pink and summer chum salmon migrating to streams on the western shoreline of Lynn Canal and other wild stocks originating in upper Lynn Canal.

MANAGEMENT PLAN

In 2017, ADF&G intends to manage the summer Lynn Canal drift gillnet fishery to obtain escapements within the established escapement goal ranges for all salmon stocks. The below goal preseason forecast for Chilkat River king salmon requires an early season conservative management approach in District 15. Chilkat Inlet will be closed for a longer period of time than is specified in the *Lynn Canal and Chilkat River King Salmon Fishery Management Plan* (5 AAC 33.384) and other area, time, and gear restrictions will be in place during the first several weeks of the summer season to minimize the harvest of Chilkat River king salmon. Inseason

abundance estimates of the king salmon run will be developed with the Chilkat River fish wheel and drift gillnet stock assessment projects and will be used to determine the extent of restrictions implemented during the initial weeks of the traditional sockeye salmon season.

The department intends to manage the early portion of the Section 15-C fishery to allow sustainable harvest levels of wild stock summer chum salmon while maximizing the harvest of hatchery chum salmon. Wild summer chum salmon escapement will be monitored with aerial surveys. The fall Lynn Canal drift gillnet fishery will be managed to conserve Klehini River (early-run) fall chum salmon while providing opportunity to harvest Chilkat River fall chum and coho salmon if run strength indicates a harvestable surplus based on the size of the run as measured in the lower Chilkat River fish wheels.

Sport Fish Division has been conducting coho salmon smolt CWT studies on the Chilkat River to estimate smolt size, age structure, production of coho salmon smolts, and marine survival of adult coho salmon since 1999. This information will be used for inseason evaluation of adult coho returns to Lynn Canal.

In order to avoid conflicts with sport fisheries, the District 15 drift gillnet fishery will not be open concurrent with the 2017 Juneau Golden North Salmon Derby (August 11–13). Consequently, during SW 33, the District 11 gillnet fishery will not open until Monday, August 14.

As in previous years, ADF&G management crews, as part of the marine fishery performance project, will be on the fishing grounds during commercial fishing periods to monitor the fishery during each opening. ADF&G vessels stand by on VHF channel 10 when on the fishing grounds.

Section 15-A

Section 15-A will open for two days beginning at 12:01 p.m., Sunday, June 18 (SW 25) in the waters of Lynn Canal, south and east of a line at the southernmost tip of Talsani Island to Eldred Rock Light to a point two nautical miles from the eastern shoreline at the latitude of Sherman Rock. In subsequent openings, time, area, and gear restrictions will be in place as necessary to reduce the harvest of Chilkat River king salmon, with openings similar to the first week occurring in SW 26–27. A maximum mesh size restriction of 6 inches will be in place during SW 25–26. Night closures designed to reduce the harvest of immature king salmon will likely be implemented during the first three weeks of the season (SW 25–27). Subsequent openings will be based on inseason fishery performance and stock assessment information. During the first three weeks of the season, any openings designed to harvest strong returns of Chilkoot sockeye salmon will occur north of the latitude of the Katzehin Buoy.

If inseason projections for Chilkat or Chilkoot lakes sockeye salmon are poor, Chilkat or Chilkoot inlets may remain closed until escapements improve and are projected to meet escapement objectives. After July 15, the Chilkat Lake sockeye salmon run strength, as measured by the lower Chilkat River stock assessment project and inseason fisheries performance, will dictate commercial fishery openings in Chilkat Inlet. If escapement of sockeye salmon to Chilkat Lake is low, the northern boundary line may be moved south of Seduction Point to boost sockeye salmon escapement to Chilkat Lake. If inseason information suggests that the Chilkoot Lake sockeye salmon run is not projected to meet escapement goals, restrictions in time and area of eastern and northern Section 15-A will be implemented until the department can project sockeye escapement within desired goal ranges.

The Chilkat mainstem sockeye salmon run overlaps with early Chilkat Lake sockeye salmon and peaks in early to mid-July, followed by late run Chilkat Lake sockeye, which typically dominate the sockeye run during mid- to late August. Chilkat River stock assessment and the stock separation of the harvest will be used to monitor the stock composition of the sockeye run. The below goal preseason forecast for Chilkat River king salmon will likely limit the harvest of mainstem sockeye to the area outside of Chilkat Inlet.

Fall fishery management in Section 15-A will begin in SW 34. As in recent years, the northern boundary line in Section 15-A may move northward in stages as the coho and fall chum stocks migrate through Chilkat Inlet. Depending on effort levels as well as coho and fall chum salmon run strength, fishing opportunity in Section 15-A will be similar to openings in recent years. Fishermen are reminded that any extensions in fishing time during the fall season could be announced with little advance notice. Extensions in fishing opportunity will be based on results of inriver stock assessment and projected escapement relative to escapement goals.

Section 15-B

During years of high coho salmon abundance, openings in Section 15-B (south of the latitude of Cove Point) have occurred for two or three days from SW 38 through the end of the season. Inseason information collected from CWT recoveries and commercial harvest from various gear types will provide the data to manage fishing opportunity in Section 15-B. Since the preseason forecast is for an average return of coho salmon for Berners Bay streams, it is unlikely that openings within Berners Bay will occur in 2017.

Section 15-C

Section 15-C will open for two days beginning at 12:01 p.m., Sunday, June 18, south of the latitude of Point Bridget on the eastern shoreline and south of Danger Point on the western shoreline. A maximum mesh size restriction of 6 inches will be in place at least for the first two openings.

Due to king salmon conservation concerns and expected average returns of Chilkat and Chilkoot lakes sockeye salmon, open fishing time in Section 15-C will begin with 2 days during the first two openings (SW 25–26). The waters of the Boat Harbor Terminal Harvest Area (BHTHA) inside Boat Harbor will be open 7 days per week. Any extensions granted in 15-C during the first two weeks will be limited to the small area in eastern Section 15-C (known as the "postage stamp area") and defined as:

> The waters of Section 15-C from the eastern shoreline of Lynn Canal at the latitude of Vanderbilt Reef Light to Vanderbilt Reef Light and east of a line from Vanderbilt Reef Light to Little Island Light.

Subsequent openings will be based on inseason fishery performance and stock assessment information. If inseason projections for the Chilkat or Chilkoot lakes sockeye salmon runs are below the escapement goal range, it is possible that additional time, area, and gear restrictions will be put in place in Section 15-C to boost escapement of sockeye salmon to desired levels. To provide adequate escapements for northbound wild salmon stocks while providing opportunity to harvest enhanced chum salmon, some openings, or extensions of openings, may be limited to the postage stamp area. The decision to use this strategy will be considered inseason based on Chilkat River fish wheel counts, Chilkoot Lake weir counts, aerial survey results, and results from stock

composition sampling of the commercial fishery. Six-inch minimum mesh size gear restrictions may be in place to reduce the harvest of sockeye salmon if deemed necessary.

Due to king salmon conservation concerns, there will be time, area, and gear restrictions applied to the opening of the BHTHA in 2017. Management of this THA is described under the heading, *Douglas Island Pink and Chum, Inc. Terminal Area Fisheries*.

Fall season management will begin in SW 34 (August 20) in Section 15-C. Management of this area during the fall season will be based on overall coho and fall chum salmon run strength and fishing effort levels. Commercial fishing effort will be directed at harvesting coho and fall chum salmon in excess of escapement needs. Fishing time will most likely be limited to two to three days each week in the fall season. Any extensions of area or fishing time in the fall season will depend on the results of various stock assessment projects in the Chilkat and Chilkoot watersheds. Extensions could be announced without advance notice during the fall season if salmon run strength warrants.

TERMINAL HARVEST AREA FISHERIES

During the 2017 season, drift gillnet terminal area fisheries can be expected in Deep Inlet, Neets Bay, Nakat Inlet, Anita Bay, Speel Arm, and Boat Harbor to harvest salmon returning to DIPAC, NSRAA, and SSRAA enhancement facilities.

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 1,355,000 chum, 22,700 king, and 52,000 coho salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2017. This season, 90,000 chum salmon are needed for broodstock, and up to 360,000 chum salmon are needed for cost recovery, depending on price. NSRAA anticipates a closure of the THA in early August to complete cost recovery needs. 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 distributing the harvest of hatchery-produced salmon between the purse seine and drift gillnet fleets. In 2015, the BOF adopted regulations setting the time ratio for drift gillnet to purse seine openings at 2:1 for the 2015 – 2017 seasons, except from the third Sunday in June through statistical week 30, the time ratio for drift gillnet to purse seine openings is 1:1. However, if the postseason preliminary enhanced salmon harvest value data from the previous season indicates the purse seine gear group is within its enhanced salmon allocation percentage range, based on the five-year rolling average as described in the *Southeastern Alaska Area Enhanced Salmon Allocation Management Plan* (5 AAC 33.364), the time ratio for drift gillnet to purse seine

openings is 2:1 for the entire season. This BOF action also allowed trolling to occur when net fisheries are closed.

During king salmon management (May 28 to June 17) drift gillnet fishing is scheduled on Mondays, Tuesdays, Thursdays, and Fridays, and purse seine fishing is scheduled on Sundays and Wednesdays. During the first portion of chum salmon management (June 18 thru July 29) drift gillnet fishing is scheduled on Mondays, Tuesdays, and Wednesdays, and purse seine fishing is scheduled on Sundays, Thursdays, and Fridays. During the second portion of chum management (July 30 thru September 30) drift gillnet fishing is scheduled on Mondays, Tuesdays, Thursdays, and Fridays, and purse seine fishing is scheduled on Sundays and Wednesdays. Details of the rotational fishery schedule for Deep Inlet were announced in an ADF&G News Release on April 3, 2017.

The NSRAA board has requested that the common property rotational fishery begin May 28 in order to provide for common property harvest of king salmon returning to the Medvejie Hatchery. NSRAA expects a return of 19,100 king salmon to Medvejie Hatchery this season. THA rotational gear fisheries with four days of drift gillnet and two days of purse seine per week are scheduled to begin for drift gillnet gear on Monday, May 29, and continue through Friday, June 16.

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 2017, drift gillnet fishermen will be required to fish with a minimum mesh size of six inches prior to June 17. 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 135°22.63′ W. longitude, 56°59.35′ N. latitude 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 the southernmost island in the Kutchuma Island group to the westernmost tip of an unnamed island at 135°17.67′ W. longitude, 57°00.30′ N. latitude to a point on the southern side of the unnamed island at 135°16.78′ W. longitude, 57°00.08′ N. latitude and then to a point on the Baranof Island Shore at 135°16.53′ W. longitude 56°59.93′ N. latitude 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 2017 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 the department 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 2017 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 2017, SSRAA is expecting a total run of 1,320,000 summer chum, 212,600 fall chum, 205,000 coho, and 22,200 king salmon to return to Neets Bay.

The Neets Bay fishery will open to all gear beginning at 12:01 a.m., Monday, May 1 and ending at 12:00 noon, Saturday, 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 12 through 12:00 noon, June 26, 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 2017 season fishing schedule at Neets Bay were announced in an ADF&G news release on April 4, 2017 and can also be found on the SSRAA website.

For 2017, the net rotational fishing schedule will again be modified during SW 24–26 allowing additional closures to conserve Unuk River king salmon. This loss of time will coincide with the period when Unuk River king salmon transit this area as evidenced by tag data.

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 2017, 226,000 summer chum, 96,800 fall chum, and 21,000 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 king salmon run is 3,580 adults, of which 1,790 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 2017.

The total Crystal Lake Hatchery coho salmon run is expected to be 9,300 fish. An estimated 8,700 fish are expected to reach the Wrangell Narrows-Blind Slough terminal area. No commercial drift gillnet fishery is anticipated in the THA in 2017.

Anita Bay Terminal Harvest Area— [5 AAC 33.383]

Anita Bay THA consists of the waters west of a line from Anita Point to 56°14.26′ N. latitude, 132°23.92′ W. longitude.

For 2017, 481,000 summer chum, 15,400 king, and 20,100 coho salmon are expected to return. The Anita Bay THA will open to harvest salmon by troll, drift gillnet, and purse seine from 12:01 a.m., Monday, May 1, through 12:00 noon, Friday, November 10. A rotational fishery will begin on June 13 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 conclude on August 30 and the THA will open to both gear groups concurrently through the rest of the season. Details of this schedule were developed by SSRAA, 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 nautical miles north of Point Whidbey at 58°37.05′ N. latitude.

The 2017 projection for the combined Amalga and Boat Harbor Terminal Harvest Area (BHTHA) enhanced chum salmon return is 1.48 million fish. This forecast is well below the 2007–2016 average of 2.11 million fish. The common property share of the total 2017 return is estimated to be 1.08 million chum salmon. All of DIPAC's chum salmon releases in Lynn Canal are thermal marked with the same pattern and the preseason projection is for the Amalga and Boat Harbor returns combined.

Due to king salmon conservation concerns, there will be additional time, area, and gear restrictions applied to the opening of the BHTHA in 2017. During the first two weeks of the season (SW 25–26) the BHTHA will open for two days a week south of Danger Point, and within one nautical mile of the western shoreline of Lynn Canal. A 6" maximum mesh size will be implemented. For the third and fourth weeks (SW 27–28), the same area will open for a maximum of four days per week, with the first two days concurrent with the opening of the rest of Section 15-C. If there are no wild stock concerns, it is expected that the full BHTHA area south of Danger Point will open seven days a week beginning in SW 29 (July 16).

The inside waters of Boat Harbor, defined as those waters of the BHTHA west of the department markers at the entrance of Boat Harbor, will open seven days per week beginning on June 18.

Speel Arm Special Harvest Area

The forecast total run of Snettisham Hatchery sockeye salmon in 2017 is 236,000 fish which is 83% of the 2016 total run of 284,000 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.

REFERENCES CITED

Conrad, S., and D. Gray. *In prep*. Overview of the 2016 Southeast Alaska and Yakutat commercial, personal use, and subsistence salmon fisheries. Alaska Department of Fish and Game, Fishery Management Report, Anchorage.

Eggers, D. M., X. Zhang, R.L. Bachman, and M.M. Sogge. 2009. Sockeye salmon stock status and escapement goals for Chilkoot Lake in Southeast Alaska. Alaska Department of Fish and Game, Fishery Data Series No. 09-63, Anchorage.

Ericksen, R. P., and S. J. Fleischman. 2006. Optimal production of coho salmon from the Chilkat River. Alaska Department of Fish and Game, Fishery Manuscript No. 06-06, Anchorage.

Ericksen, R. P., and S. A. McPherson. 2004. Optimal production of King salmon from the Chilkat River. Alaska Department of Fish and Game, Fishery Manuscript No. 04-01, Anchorage.

Heinl, S. C., E. L. Jones III, A. W. Piston, P. J. Richards, and L. D. Shaul. 2014. Review of salmon escapement goals in Southeast Alaska, 2014. Alaska Department of Fish and Fame, Fishery Manuscript Series No. 14-07, Anchorage.

Shaul, L., E. Jones, and K. Crabtree. 2005. Coho salmon stock status and escapement goals in Southeast Alaska [In] Der Hovanisan and H.J. Gieger, editors. Stock status and escapement goals for salmon in Southeast Alaska 2005. Alaska Department of Fish and Game, Special Publication No. 05-22, Anchorage.

Stopha, M. 2017. Alaska fisheries enhancement annual report 2016. Alaska Department of Fish and Game, Regional Information Report 5J17-04, Anchorage.

FISHERY CONTACTS

The following people are Division of Commercial Fisheries contacts for this management plan:

Lowell Fair
Region 1 Supervisor
802 3rd Street
Douglas, AK 99824
(907) 465-4250

Dan Gray
Region 1 Management Coordinator
304 Lake Street, Room 103
Sitka, AK 99835
(907) 747-6688

Dave Harris or Scott Forbes
Area Management Biologists
802 3rd Street
Douglas, AK 99824
(907) 465-4250

Scott Walker, Bo Meredith, or Justin Breese
Area Management Biologists
2030 Sea Level Drive, Suite 205
Ketchikan, AK 99901
(907) 225-5195

Eric Coonradt or Aaron Dupuis
Area Management Biologists
304 Lake Street, Room 103
Sitka, AK 99835
(907) 747-6688

Troy Thynes or Kevin Clark
Area Management Biologists
P.O. Box 667
Petersburg, AK 99833
(907) 772-3801

Mark Sogge or Wyatt Rhea-Fournier
Area Management Biologists
P.O. Box 330
Haines, AK 99827
(907) 776-2830

Jim Craig
Publications Specialist
802 3rd St
Douglas, AK 99824
(907) 465-4236

Tom Kowalske
Assistant Area Management Biologist
P.O. Box 200
Wrangell, AK 99929
(907) 874-3822

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
Petersburg:	(907) 772-3700
Juneau:	(907) 465-8905
Haines:	(907) 766-2830

TABLES AND FIGURES

Table 1.–Southeast Alaska commercial drift gillnet salmon harvest, in numbers, by area, harvest type and species, 2016.

Fishery	King[a]	Sockeye	Coho	Pink	Chum	Total
District 1						
Traditional (Tree Point)	1,191	39,912	46,393	561,021	273,608	922,125
Terminal Harvest Area (Neets, Nakat)	1,919	1,376	3,628	47,330	175,116	229,369
Annette Island	855	3,798	35,677	273,022	243,342	556,694
District 6						
Traditional (Prince of Wales)	2,094	106,649	122,101	358,309	130,236	719,389
District 7						
Terminal Harvest Area (Anita Bay)	2,050	209	2,434	498	72,204	77,395
District 8						
Traditional (Stikine)	10,024	70,143	22,146	35,250	200,653	338,216
District 11						
Traditional (Taku/Snettisham)	582	148,317	34,445	44,668	447,616	675,628
Terminal Harvest Area (Speel Arm)	13	66,732	592	1,936	668	69,941
District 13						
Terminal Harvest Area (Deep Inlet)	2,353	208	1,695	21,908	447,215	473,379
District 15						
Traditional (Lynn Canal)	448	176,631	30,488	66,257	692,938	966,762
Terminal Harvest Area (Boat Harbor)	27	12,213	46	15,713	238,981	266,980
Subtotals						
Traditional	14,339	541,652	255,573	1,065,505	1,745,051	3,622,120
Terminal Harvest Areas	6,362	80,738	8,395	87,385	934,184	1,117,064
Common Property Total	20,701	622,390	263,968	1,152,890	2,679,235	4,739,184
Annette Island Reserve	855	3,798	35,677	273,022	243,342	556,694
Total	**21,556**	**626,188**	**299,645**	**1,425,912**	**2,922,577**	**5,295,878**

[a] King salmon harvest includes jacks.

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, 2006 to 2016.

Year	King[a]	Sockeye	Coho	Pink	Chum	Total
2006	2,271	63,368	31,271	216,779	297,660	611,349
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**
Average 2006–2015	3,760	60,034	72,170	388,399	455,324	979,686

[a] King salmon harvest includes jacks.

Table 3.–Southeast Alaska annual Prince of Wales (District 6) traditional drift gillnet salmon harvest, in numbers, by species, 2006 to 2016.

Year	King[a]	Sockeye	Coho	Pink	Chum	Total
2006	1,948	91,980	69,015	149,907	268,436	581,286
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**
Average 2006–2015	2,220	86,054	143,509	265,844	174,954	672,581

[a] King salmon harvest includes jacks.

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

Year	King[a]	Sockeye	Coho	Pink	Chum	Total
2006	30,033	61,298	34,430	56,810	343,827	526,398
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**
Average 2006–2015	11,332	37,376	30,725	46,759	158,232	284,426

[a] King 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, 2006 to 2016.

Year	King[a]	Sockeye	Coho	Pink	Chum	Total
2006	11,261	262,527	60,145	191,992	382,952	908,877
2007	1,452	112,241	22,394	100,375	590,169	826,631
2008	2,193	116,693	37,349	90,162	774,095	1,020,492
2009	6,800	62,070	36,615	56,801	918,350	1,080,636
2010	1,685	76,607	62,241	132,785	488,898	762,216
2011	2,510	163,896	28,574	344,766	667,929	1,207,675
2012	1,291	140,898	24,115	193,969	566,741	927,009
2013	1,224	207,231	51,441	127,343	726,849	1,114,088
2014	1,471	126,738	54,186	29,190	291,409	502,994
2015	1,150	83,431	23,572	296,575	475,456	880,184
2016	**595**	**215,049**	**35,037**	**46,604**	**448,284**	**745,569**
Average 2006–2015	3,104	135,233	40,063	156,396	588,285	923,080

[a] King salmon harvest includes jacks.

Table 6.–Southeast Alaska annual Lynn Canal (District 15) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2006 to 2016.

Year	King[a]	Sockeye	Coho	Pink	Chum	Total
2006	344	145,579	55,133	94,700	1,094,246	1,390,002
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**
Average 2006–2015	1,060	135,353	42,861	225,434	1,093,311	1,498,019

[a] King salmon harvest includes jacks.

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

Year	Nass River Total Return	Nass River Escapement	Allowable Nass River AAH	Allowable Alaska Harvest (13.8%)	Actual Nass River Alaska Harvest	Cumulative: +overage / *(-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	*-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	303,549	41,890	35,471	*-166,719*
2014	549,685	200,000	349,685	48,257	29,023	*-185,953*
2015	868,742	200,000	668,749	92,287	14,867	*-263,373*
2016[a]	444,942	200,000	244,942	33,802	14,388	*-282,787*
2017[b]	454,000	200,000	254,000	35,052		

[a] Preliminary Information
[b] DFO (Department of Fisheries and Oceans) forecast

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

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

[a] Eggers et al. 2009
[b] Shaul and Crabtree 2005
[c] Ericksen and Fleischman 2006
[d] Ericksen and McPherson 2004
[e] Heinl et al. 2014

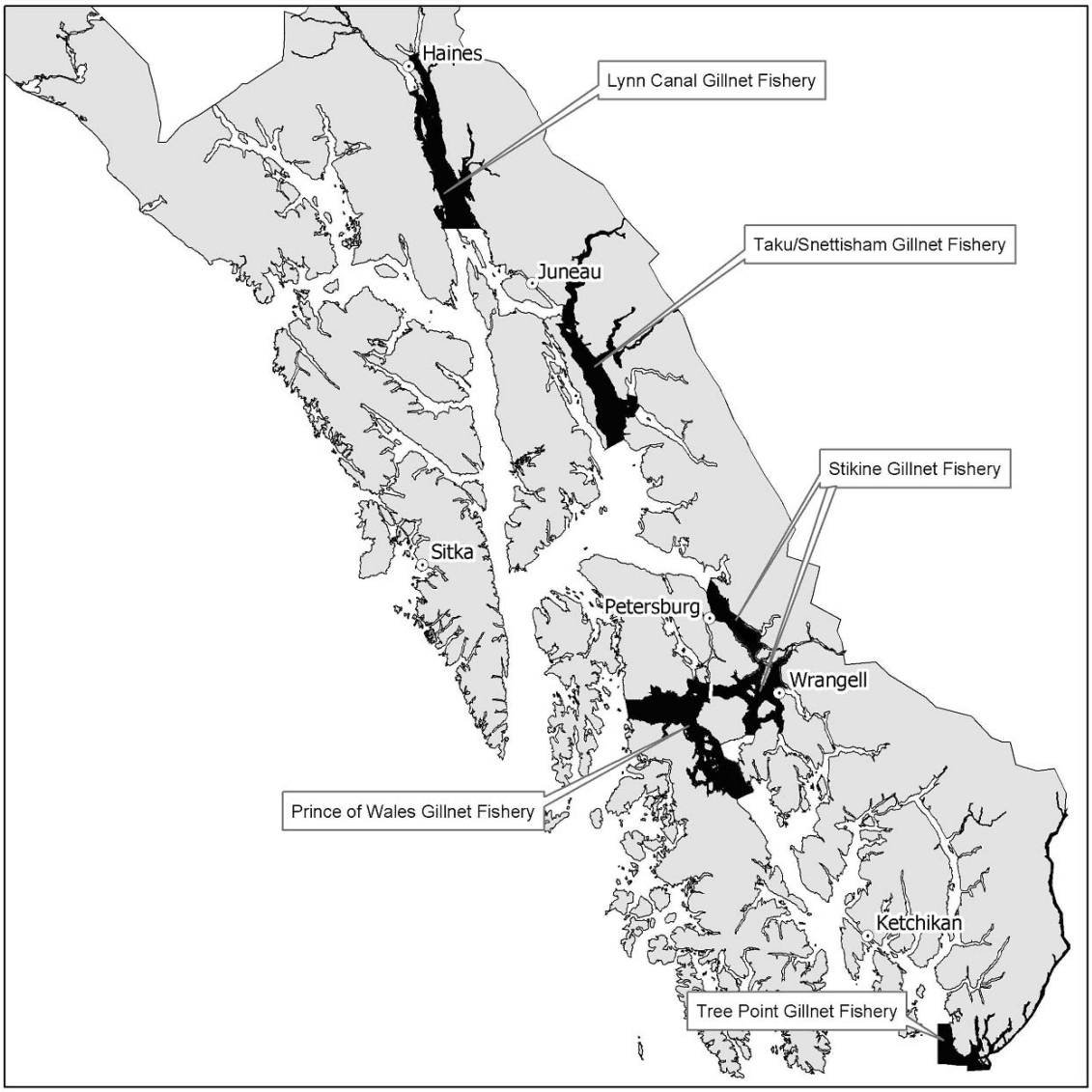

Figure 1.–Traditional drift gillnet fishing areas in Southeast Alaska.