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2020 Southeast Alaska Drift Gillnet Fishery Management Plan

by

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

Symbols and Abbreviations

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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

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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/

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ABSTRACT

This management plan provides an overview of the expected salmon run sizes, regulations, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2020. 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, 2020.

INTRODUCTION

This management plan provides an overview of the expected salmon run sizes, regulations, management issues, and harvest strategies for the Southeast Alaska (SEAK) drift gillnet fisheries in 2020.

For the recent 10-year period 2009 to 2018, an average of 474 SEAK drift gillnet limited entry permits were issued annually, of which an average of 90% were actively fished each year (Conrad and Thynes *In Prep*). In 2019, 461 permits were issued, of which 397 (86%) were actively fished (CFEC 2019). 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 (1960–2019). In the last ten years, the species composition of the drift gillnet harvest has been 60% chum, 25% pink, 9% sockeye, 6% coho, and <1% Chinook salmon. Of the total commercial salmon harvest in SEAK, the most recent 10-year average drift gillnet fishery harvests have included 40% sockeye, 28% chum, 13% coho, 9% Chinook, and 4% pink salmon.

The five traditional drift gillnet fishing areas in SEAK 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 2019 season drift gillnet harvest for each species by fishery area and type is presented in Table 1. The most recent 10-year annual and average harvests are presented in Table 2 for Tree Point, Table 3 for Prince of Wales, Table 4 for Stikine River, Table 5 for Taku/Snettisham, and Table 6 for Lynn Canal.

The drift gillnet fishery primarily targets sockeye, pink, and chum salmon during the summer season and coho and chum salmon during the fall season. Directed commercial fisheries harvesting Stikine and Taku rivers Chinook salmon began in 2005 after ceasing in the 1970s. District 8 was opened to directed Stikine River Chinook salmon fisheries from 2005 through 2008, and limited fisheries occurred in 2012 and 2016. The 2020 Stikine River Chinook salmon preseason forecast is below the escapement goal range, which will result in conservative management during the early portion of the sockeye salmon fishery. In District 11, directed fisheries on Taku River Chinook salmon occurred in 2005, 2006, and 2009, and two 12-hour openings occurred in 2012. The 2020 Taku River preseason Chinook salmon terminal run forecast is also below the escapement goal range resulting in no directed fisheries and conservative actions in the early sockeye salmon fishery openings as has occurred the past two seasons.

SEAK Chinook salmon stocks are currently experiencing a cycle of very low abundance. Over the past five years (2015–2019), the eleven monitored Chinook salmon index systems did not meet escapement goals 55% of the time. In 2019, four of the eleven monitored Chinook salmon index systems were below their escapement goal ranges. In 2020, three of the five systems for which forecasts are developed are projecting a terminal run below their escapement goal ranges. Three of these systems, the Taku, Stikine, and Chilkat rivers, are within the District 11, District 8, and District 15 drift gillnet fishing areas. Commercial, sport, personal use, and subsistence fisheries will be restricted throughout SEAK in 2020 to conserve Chinook salmon. More information on Chinook salmon management actions in specific fisheries can be found below.

SALMON RUN EXPECTATIONS

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

The 2020 Stikine River Chinook salmon terminal run forecast is 13,400 large fish (large Chinook salmon are greater than 659 mm mid eye to tail fork). This forecast is well below the average of 19,400 fish and below the escapement goal range of 14,000–28,000 fish. This forecast does not provide for directed or assessment fisheries in either the U.S. or Canada and both countries will be utilizing restrictions during the directed sockeye salmon fisheries. Details of the management strategy will be in the Prince of Wales and Stikine Fisheries section of this plan.

The 2020 preseason terminal run forecast for Taku River large Chinook salmon is 12,400 fish. This forecast is below the escapement goal range of 19,000 to 36,000 fish and does not provide for directed or assessment fisheries in either the U.S. or Canada on Taku River Chinook salmon. In addition, both countries will be utilizing restrictions during early sockeye salmon fishery openings to minimize harvest of Chinook salmon. Details of the management strategy will be explained in the Taku/Snettisham Fishery section of this plan.

For 2020, the preliminary terminal run forecast for Stikine River sockeye salmon is 103,400 fish, which constitutes a below average run size. For comparison, the recent average (2010–2019) total run size is 115,000 fish. Wild sockeye salmon returns to the Taku River are expected to total 129,000 fish, lower than the recent 10-year average adjusted terminal run size of 148,000 fish. Enhanced sockeye salmon returns to the Taku River are again expected to be minimal and near the recent 10-year average terminal run size of approximately 9,000 fish. Chilkat and Chilkoot lakes sockeye salmon returns are expected to be average to above average. Douglas Island Pink and Chum, Inc. (DIPAC) forecasts 226,000 enhanced sockeye salmon returning to Snettisham Hatchery in 2020.

The projected regionwide forecast of hatchery summer chum salmon returns for 2020 is 10.0 million fish. This includes 2 million fish to four DIPAC locations, 6.8 million fish to six Northern Southeast Regional Aquaculture Association (NSRAA) locations, and 3.2 million fish to five Southern Southeast Regional Aquaculture Association (SSRAA) locations (Tables 8 and 9). A portion of these returns above broodstock and cost recovery needs may be harvested in traditional

drift gillnet fisheries in Districts 1, 6, 8, 11, and 15, as well as in terminal area drift gillnet fisheries in Boat Harbor, Deep Inlet, Anita Bay, Neets Bay, and Nakat Inlet. Chum salmon harvests in regional drift gillnet fisheries have averaged 2.9 million fish per year over the recent 10-year period from 2009 to 2018, 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 2019 was estimated at 66,000 fish, around 39% of total drift gillnet coho salmon harvests. The largest portion of the harvest was from fish returning to the Macauley Hatchery with substantial harvest from coming Whitman Lake and Nakat Inlet.

The SEAK pink salmon harvest forecast for 2020 is 12 million fish, with a range of 7 to 19 million fish. The major portion of the pink salmon harvest for the region is generally taken by purse seine gear. Drift gillnet harvests of pink salmon have recently averaged 4% of regional pink salmon harvests.

MANAGEMENT APPROACH

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

Primary management objectives for the 2020 drift gillnet fishery are to

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

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

Past experience has demonstrated that management of salmon fisheries based solely on fishery performance, or CPUE, can be misleading, especially for mixed stock fisheries. Therefore, other

available run strength indicators, if available, will be used including spawning escapements, stock composition estimates, test fishing, observed salmon concentrations in closed waters, harvests from other fisheries, and salmon run timing models.

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

WEEKLY FISHING ANNOUNCEMENTS

Inseason management of the District 1 drift gillnet fishery is conducted by Ketchikan Area staff; Districts 6 and 8 by Petersburg and Wrangell Area staff; District 11 by Juneau Area staff; and District 15 by Haines Area staff. Because permit holders can move freely among all drift gillnet fisheries, the weekly fishing announcements will be issued to include all areas in the region. These will normally be released by midafternoon 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. 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 2020 season. This regulation may be implemented by emergency order in other areas of SEAK if necessary, after consultation with the Alaska Wildlife Troopers. Further details regarding the implementation of this regulation will be announced at later dates.

USE OF DRONES PROHIBITED

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

U.S./CANADA PACIFIC SALMON TREATY

The Pacific Salmon Treaty (PST) will directly influence management of Districts 1, 6, 8, and 11 drift gillnet fisheries [5 AAC 33.361]. The management provisions of the PST will be considered separately under the specific management plan for each fishery. Fishermen are encouraged to contact local ADF&G staff for more detailed information concerning Alaska's PST obligations under the 2019–2028 Northern Boundary and Transboundary River (TBR) Annex agreement.

CHINOOK SALMON

For 2020, the all gear PST Chinook salmon allocation is 201,100 Treaty Chinook salmon. This year’s all gear harvest limit includes a 2% reduction that will serve as a buffer to avoid exceeding

the all gear limit and payback provisions within the Pacific Salmon Treaty. The all gear harvest limit for SEAK is determined by the catch per unit effort metric from the SEAK early winter power troll fishery. The 2020 drift gillnet Treaty Chinook salmon allocation is 5,800 fish. The need for management measures to comply with the drift gillnet harvest quota for Chinook salmon will depend on inseason evaluation of Chinook salmon catch rates relative to the 2.9% drift gillnet allocation of the Treaty fish harvest ceiling [5 AAC 29.060]. Nighttime fishing closures will be implemented in certain areas to reduce the incidental catch of immature, "feeder" Chinook salmon. Only historical base level catches in Districts 8 and 11 will be counted towards the PST fish ceiling when directed fisheries occur.

Terminal Chinook salmon fisheries in Districts 8 and 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 similar actions are expected in 2020. 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], and the Board of Fisheries guidelines reported in the *Chilkat River and King Salmon River King Salmon Stock Status and Action Plan, 2018* (Lum and Fair 2018). The District 15 drift gillnet fishery will be managed with time, area, and gear restrictions that exceed the provisions listed in the plan.

The BOF approved action plans for three Chinook salmon Stocks of Management Concern (Unuk, King Salmon, and Chilkat rivers) at the 2018 Southeast and Yakutat Finfish Meeting. These plans outline specific actions to be taken in the Neets Bay THA, District 15, and District 11 drift gillnet fisheries, as well as purse seine, troll, sport, personal use, and subsistence fisheries throughout the region to minimize harvest of Chinook salmon returning to these systems. Additionally, Chinook salmon returns to other SEAK systems in the past four years have been at low levels, including the Stikine and Taku rivers which comprise the largest runs in the region. Current terminal run size forecasts for both of these systems are below their respective escapement goal ranges and management actions taken to conserve Chinook salmon will be highly restrictive in attempts to attain escapement goals and stay within harvest limits outlined in the PST. Management actions are being taken across all SEAK fisheries, including sport, commercial, personal use, and subsistence, to reduce harvest of wild Chinook salmon. More information about the basis for 2020 Chinook salmon conservation measures in SEAK is publicly available (links provided below).

Chilkat River and King Salmon River King Salmon Stock Status and Action Plan, 2018:
http://www.adfg.alaska.gov/FedAidPDFs/RIR.1J.2018.05.pdf
Unuk River King Salmon Stock Status and Action Plan, 2018:
http://www.adfg.alaska.gov/FedAidPDFs/RIR.1J.2018.04.pdf
2020 Southeast Alaska Chinook Salmon All Gear Harvest Limit press release:
http://www.adfg.alaska.gov/index.cfm?adfg=pressreleases.pr&release=2020_02_11
Southeast Alaska Net Fisheries Chinook Salmon Management Restrictions Advisory Announcement:
http://www.adfg.alaska.gov/static/applications/dcfnewsrelease/1133944615.pdf

DISTRICT 1 GILLNET FISHERY

INTRODUCTION

The District 1 drift gillnet fishing area consists of regulatory Sections 1-A and 1-B, and targets summer chum and sockeye salmon early in the season, followed by pink salmon, and finally fall coho and chum salmon at the end of the season. Management of the District 1 drift gillnet fishery is subject to provisions of the PST and the *District 1 Pink Salmon Management Plan*. The Nakat Inlet terminal harvest area management plan will be discussed within the THA fisheries section.

2020 OUTLOOK

Chum Salmon

Summer chum salmon runs in southern SEAK during the 2019 season resulted in good escapement to many of the index streams in the subregion. Chum salmon harvest for the District 1 drift gillnet fishery was below average in 2019. The past season was characterized by strong wild runs and poor hatchery returns within the southern SEAK. The index count of 105,000 chum salmon in the Southern Southeast Subregion was well above the lower bound sustainable escapement goal (SEG) of 62,000 index fish. The estimated escapement of 18,800 summer chum salmon at Fish Creek near Hyder was below the long-term average of 24,400 fish (1983–2018) and the peak aerial survey estimate of 36,000 fish at the Tombstone River was the fourth largest since 1960.

U.S./Canada District 1 Drift Gillnet Fishery Agreement

In the spring of 2018, the United States and Canada renegotiated a 10-year annex, 2019–2028, for the District 1 drift gillnet fishery. There were minor changes to the language in the District 1 drift gillnet portion of the PST that are outlined below. The management goals remain the same and the agreement continues to require the following:

1. Manage the Alaska District 1 drift gillnet fishery to
    a) 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 and
    b) carry forward from year to year annual deviations from the prescribed catch share arrangement.
2. Based on run size estimates for Nass River sockeye, the parties shall undertake additional management actions as follows:
    a) If expected total run is forecasted below 200,000 sockeye salmon; there are no Canada commercial marine harvest and the United States shall undertake measures to reduce the impact of District 101 drift gillnet and District 104 purse seine fisheries, which may include delaying the start date and duration of these fisheries.
    b) If expected total run is below 180,000 sockeye salmon; there are no Canada marine or inriver commercial harvests and the United States shall undertake measures to reduce the impact of District 101 drift gillnet and District 104 purse seine fisheries, which may include delaying the start date, reducing the duration, reducing the area, and/or implementing mesh restrictions (District 1 drift gillnet fishery only) for these fisheries.

Nass River Sockeye Salmon Annual Allowable Harvest

The AAH each year will be calculated as the total run of Nass River adult 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 harvest of Nass River sockeye salmon in the principal boundary area fisheries and the spawning escapement to the Nass River watershed. This includes the harvest of Nass River sockeye salmon in Alaska Districts 1, 2, 3, 4, and 6 net fisheries, Canada Areas 1, 3, 4, and 5 net fisheries, and Canada's 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 2020, the bilateral Northern Panel and the Northern Boundary Technical Committee met and finalized the 2018 Nass River sockeye salmon run reconstruction and calculated a preliminary run reconstruction for 2019. Preliminary reports indicate that the total sockeye salmon run to the Nass River in 2019 was 378,000 fish. That allowed for a harvest of 24,500 Nass River sockeye salmon in District 1 for 2019. Total sockeye salmon harvest at the District 1 drift gillnet fishery for 2019 was 16,000 sockeye salmon and of these, 11,300 were Nass River sockeye. The 1999-2019 performance of the District 1 drift gillnet fishery to the 2019 agreement is shown in Table 7.

Department of Fisheries and Oceans, Canada is forecasting a 2020 total run of 494,000 Nass River sockeye salmon. If the forecast is accurate, then the AAH for the District 1 gillnet fishery will be 41,000 Nass River sockeye salmon.

Chum and Coho Enhancement

Hatchery returns of summer chum, fall chum, and coho salmon to SSRAA enhancement release sites are expected to again contribute substantially to the District 1 drift gillnet fishery in 2020. Information concerning SSRAA forecast returns is included under the THA fisheries section of this plan.

Pink Salmon

The SEAK pink salmon forecast for 2020 is a poor return of 12 million pinks within a range of 7-20 million fish. Pink salmon harvests for Southern SEAK for the past 5 even years have averaged 16 million fish. If the actual returns are as forecasted, the District 1 drift gillnet fishery may receive two-, four-, and five-day fishing periods during weeks of the *District 1 Pink Salmon Management Plan* (PSMP; 5 AAC 33.360).

The PSMP establishes drift gillnet fishing time in Section 1-B 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 19, 2020) with the fishing time schedule as follows:

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 2020 District 1 drift gillnet fishery are as follows:

1. To manage the fishery in accordance with the PSMP.
2. To manage the fishery consistent with the current provisions of the PST (5 AAC 33.361).

MANAGEMENT PLAN

The District 1 drift gillnet fishery will open by regulation at 12:01 p.m., Sunday, June 21, in Section 1-B for an initial four-day fishing period. The length of subsequent fishing periods will be based on effort levels and the strength of wild stock sockeye and chum salmon returns to Alaska and Canada waters, until July 19 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 wild 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 District 1 chum salmon harvest and as much as 70% of the total chum salmon harvest in recent years. The PST requires the harvest of wild chum salmon stocks 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.

Pink salmon management may begin in mid-July and continue through the end of August depending on pink salmon run strength and timing. The District 1 drift gillnet fishery can anticipate fishing periods of two, four, and five days in accordance to the PSMP.

Fall management in District 1 starts after the end of the pink salmon season and varies depending on pink salmon run strength. During the fall season, the District 1 drift gillnet fishery targets primarily fall coho and chum salmon. 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 area may benefit from a closing date around September 19. 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 in District 1. However, fishing periods will be allowed after September 19 if fishery performance data indicates above average returns of wild 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 through November 10, 2020.

Hugh Smith Lake Sockeye Salmon

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

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 at 55°05.17′ N lat, 130°59.05′ W long, to Slate Island Light at 55°05.29′ N lat, 131°03.17′ W long, to Black Rock Light at 55°01.42′ N lat, 131°03.59' W long, to a point on the mainland shore at 55°01.40′ N lat, 131°00.20′ W long.
2. In SWs 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 at 54°55.44′ N lat, 130°58.65′ W long, to Black Rock Light at 55°01.42′ N lat, 131°03.59′ W long, to the southernmost tip of Black Island at 55°07.85′ N lat, 131°04.78′ W long, and close the northern portion of the Section 1-B drift gillnet fishery to 1.0 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 River fishery encompasses waters of District 8 surrounding the terminus of the Stikine River. Due to their proximity, management of these fisheries is interrelated as stocks are subject to harvest in both fisheries. Two distinct management areas exist within each district: the Frederick Sound (Section 8-A) and Wrangell (Section 8-B) portions of District 8, and the Sumner Strait (Section 6-A) and Clarence Strait (Sections 6-B, 6-C, and 6-D) portions of District 6. Management plans for terminal hatchery runs to Crystal Lake and Anita Bay will be discussed in the THA fisheries portion of this document.

2020 OUTLOOK

Chinook Salmon

The 2020 preseason terminal run forecast for Stikine River large Chinook salmon is 13,400 fish. This forecast uses sibling relationships in which the 2018 and 2019 estimated terminal runs, representing brood years 2014 and 2015, were used to predict the runs of age-5, brood year (BY) 2015 and age-6, BY 2014, fish in 2020 using the relationships observed in age classes over the past nine years. The 95% confidence interval of this forecast is 0 to 17,600 fish. This forecast is well below the average of 19,400 fish and below the escapement goal range of 14,000–28,000 fish. The forecast for enhanced Chinook salmon returning to Anita Bay is 11,000 fish, below the average of 15,600 fish.

Sockeye Salmon

The 2020 preseason forecast for Stikine River sockeye salmon of 103,400 fish is below average (114,700 fish) and includes 64,500 Tahltan Lake (62%) and 38,900 mainstem (38%) 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. District 8 sockeye salmon run timing typically peaks for the Tahltan Lake stock in SW 27 (June 28–July 4) and for the mainstem stock in SW 29 (July 12–July 18). Sockeye salmon stocks returning to other local area streams are expected to be average to below average based on parent-year escapements. The sockeye salmon run to McDonald Lake is expected to be poor again.

Pink Salmon

Pink salmon typically begin entering Districts 6 and 8 near the end of July. Although parent-year escapements to both districts were within target ranges, the below average juvenile abundance index observed in 2019 may result in weaker than average returns to Districts 6 and 8. Pink salmon harvests typically peak during SWs 31–33 in both districts.

Chum Salmon

In Districts 6 and 8, there is no direct management of chum salmon as they are caught incidentally in fisheries targeting sockeye, pink, and coho salmon. Chum salmon returning to Anita Bay contribute to salmon harvests in Districts 6 and 8. Chum salmon returning to Anita Bay typically peak during SWs 30–33 (July 19–Aug 15). Summer chum salmon production from Ketchikan area hatcheries are expected to be weak. 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 2020 are expected to be below average. Forecasted returns to Neck Lake and Neets Bay are 13,800 and 108,800 fish, respectively. The forecast for the Anita Bay coho salmon return is expected to be below average with 11,900 fish, which is lower than the 2019 return of 15,300 fish. Wild coho salmon harvests are expected to be near average. Starting in SW 36 (August 30–September 5) 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 2020 season are as follows:

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

MANAGEMENT PLAN

Chinook Salmon

The 2020 preseason forecast does not produce an allowable catch (AC) for directed Chinook salmon fisheries in District 8. Recent trends of Stikine River Chinook salmon abundance and trends in Chinook salmon abundance throughout SEAK indicate very poor survival. As such, the U.S. will be restricting fisheries for Chinook salmon conservation.

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

Sockeye Salmon

Sockeye salmon fishing in both districts will be managed in accordance with the TBR Annex of the PST. The Annex allows District 6 to be managed primarily for local Alaska sockeye salmon stocks. Management of District 8 is based on the harvest of Stikine River sockeye salmon as allowed by the sharing provisions of the TBR Annex and conservation needs. Through the end of 2023, harvest shares are 53% U.S./47% Canada. This results in a U.S. AC of 26,200 Stikine River sockeye salmon based on the 2020 preseason forecast. The AC includes 21,500 Tahltan River sockeye salmon and 4,700 mainstem sockeye.

The sockeye salmon season could open by regulation as early as 12:00 noon on Sunday, June 14 (SW 25). However, with an expected poor return of Stikine River Chinook salmon, as well as poor Chinook salmon returns throughout SEAK, conservation measures will be in place for the start of the sockeye salmon fishery. Conservation measures will include implementing a six-inch maximum mesh size in both districts, delaying the start of the sockeye salmon fishery by one week in District 6 and by at least one week in District 8, and limiting fishing time and area in District 8. The initial opening may be extended based on observed effort and harvest levels. During the first few weeks of the sockeye salmon fishery, any extended fishing time or midweek openings will be based on the preseason forecasts, harvest, expected harvest levels, and stock proportion data.

Due to the expected return of Tahltan Lake and mainstem sockeye salmon, fishing time will likely be more liberal than what occurred in 2019. However, if the Tahltan Lake component of the run appears to be weaker than forecasted, a more conservative management approach may limit fishing time in District 8, and fishery extensions in District 6 would likely not occur during the first few weeks of the sockeye fishery. If inseason estimates of mainstem sockeye salmon fall below expectations, more conservative management actions may be needed during SWs 28–32. District 6 will be limited to two days per week during SWs 29–32 due to McDonald Lake sockeye salmon concerns.

Management actions during the sockeye salmon fishing season will be based on CPUE and stock specific data to determine the availability of Stikine River sockeye salmon. These stock abundance indicators, along with fishery performance and stock composition data obtained from U.S. and Canada 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 districtwide closures will be used when necessary. All openings will be based on the most recent SSMM update and current sockeye salmon harvests.

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. Escapement of McDonald Lake sockeye salmon has fallen below the lower bound of the escapement goal range in 6 of the past 7 years. Given this history and expected low escapement forecasts, ADF&G recommended McDonald Lake sockeye salmon as a stock of concern as defined by the Sustainable Salmon Fishery Policy and the board designated McDonald Lake sockeye salmon as a stock of concern. A draft action plan was developed with several management options for the drift gillnet, purse seine, personal use, and sport fisheries for the board to consider. The draft plan was presented to the BOF during the 2018 meeting in Sitka where the board considered the various options and adopted management actions similar to the 2009 plan (Bergmann et al. 2009). The adopted actions for the District 6 drift gillnet fishery calls for a maximum fishing time of 2 days per week during the peak weeks of the McDonald Lake sockeye salmon run in SWs 29, 30, and 31 (Walker et al. 2018).

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

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

Announcements of additional fishing time by extensions or midweek openings will be made from the fishing grounds via VHF radio 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 late July. Early portions of the pink salmon fishery will be managed primarily on CPUE and parent-year escapement. By mid-August, pink salmon destined for local systems will begin to enter the fishery in greater numbers and management will be based on observed escapements to local streams. Parent-year escapements to Districts 6 and 8 met escapement objectives. However, the Southeast Alaska pink salmon harvest is forecasted to be below the recent 10-year average. The expected return may result in average fishing days during the pink salmon management period.

Coho Salmon

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

TAKU/SNETTISHAM FISHERY

INTRODUCTION

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

October. In recent decades, the fishery has harvested substantial numbers of hatchery summer chum and sockeye salmon.

2020 OUTLOOK

Chinook Salmon

The 2020 preseason terminal run forecast of 12,400 Taku River large Chinook salmon does not provide any AC for either U.S. or Canada directed fisheries. This forecast, although improved from the record low forecasts of the past two seasons, is more than 6,000 fish below the escapement goal range. DIPAC forecasts returns totaling 10,000 hatchery large Chinook salmon from their smolt release sites at Gastineau Channel, Auke Bay, Fish Creek, and Lena Cove.

Sockeye Salmon

The 2020 terminal run of Taku River wild sockeye salmon is forecasted to be 129,000 fish, below the recent 10-year adjusted average of 148,000 fish. This is a stock recruitment model forecast that incorporates recently revised data to account for historical overestimation of run size. Improvements to the Taku River sockeye salmon stock assessment project and run size estimation, recalculation of the historical dataset, and an escapement goal analysis has been ongoing for the past two years as part of the recent PST renegotiation. In January of 2020, the Taku Sockeye Working Group recommended a two-expert approved Taku River sockeye salmon S_{MSY} based escapement goal range to the TBR Panel at the Post Season Meeting in Vancouver, BC. Although the U.S. and Canada had broad agreement on the proposed escapement goal range, the countries could not come to complete agreement on all details by the end of the Annual Meeting in February 2020 in Portland, OR, which elevated the issue to the PSC Commissioners and is expected to be resolved by the beginning of May 2020. The preseason forecast will be used in conjunction with the determined escapement point goal to calculate ACs until inseason estimates become available. Adult returns to date from the joint U.S./Canada Taku River sockeye salmon enhancement project at Tatsamenie Lake have been low. Approximately 10,000 enhanced sockeye salmon of Tatsamenie Lake origin are forecast to return in 2020 which would result in a 77%/23% U.S./Canada allocation split.

The Speel Lake escapement goal was revised in 2014 to a SEG of 4,000–9,000 sockeye salmon. Both the 2015 and 2016 parent-year escapements through the Speel Lake weir were within the revised range, at 4,888 fish and 5,538 fish, respectively. The escapement goal in 2017 was not met for the first time since 2009 with 3,435 fish counted through the weir, and 2018 and 2019 escapements were within the goal range at 4,244 fish and 6,440 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 2020.

The 2020 DIPAC forecast for enhanced sockeye salmon returning to Snettisham Hatchery is 226,000 fish, 174% of the 2019 total run of 130,000 fish.

Chum Salmon

In 2020, 556,000 Gastineau Channel and 94,000 Limestone Inlet summer chum salmon are forecast to return from DIPAC hatchery releases. The forecast of DIPAC chum salmon

contribution from these releases to common property fisheries is 345,000 fish. Returns of fall chum salmon to the Taku River are expected to be minimal, like recent seasons.

Pink Salmon

Returns of pink salmon to District 11 systems are expected to be below average in 2020. Parent-year pink salmon escapements to District 11 were below management targets in 2018. The total number of pink salmon counted through the Taku River Canyon Island fish wheels in 2018 was 18% of the recent ten even-year average indicating below average escapement to the Taku River.

Coho Salmon

The 2020 run of Taku River coho salmon is expected to be above average. The terminal run forecast of 122,000 fish is based on a smolt estimate with a five-year average marine survival applied. This compares to a recent 10-year average terminal run of 111,000 fish. Taku River coho salmon harvest sharing provisions, which are part of the current 2019-2028 TBR Annex of the PST, do not allow for any harvest by the U.S. unless the terminal run size is in excess of 75,000 fish. DIPAC projects a 2020 return of 40,000 hatchery coho salmon from their smolt releases into Gastineau Channel.

MANAGEMENT GOALS

Management goals for the 2020 Taku/Snettisham drift gillnet fishery are as follows:

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

MANAGEMENT PLAN

The District 11 drift gillnet fishery will be managed in accordance with the TBR Annex of the PST. Harvest sharing arrangements for Chinook, sockeye, and coho salmon through the 2028 fishing season are specified in the annex.

In order to avoid conflicts with sport fisheries, the District 11 drift gillnet fishery will not be open concurrent with the 2020 Juneau Golden North Salmon Derby (August 14–16). That week's opening will not open until Monday, August 17.

Chinook Salmon

The preseason forecast is below the escapement goal range and requires a conservative management approach for the 2020 Taku River Chinook salmon run. The forecast does not provide any AC for U.S. fisheries in early May, no assessment fishery will occur on the Canada 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 handling of fish. Inseason abundance estimates derived from comparisons

of inriver tangle net CPUE may be available in mid- to late May. However, inseason assessment may cease if the run does not appear large enough to allow the additional handling of fish.

Sockeye Salmon

The District 11 drift gillnet fishery will begin the third Sunday in June for directed sockeye fishing in Section 11-B with time, area and mesh restrictions. The initial opening will be for a two-day fishing period with an area restriction closing waters in Taku Inlet north of Point Greely and west of a line of longitude running mid-inlet from the latitude of Point Greely to a point where it intersects with the shoreline south of Grand Island. A six-inch maximum mesh size restriction and night closures will be in effect. The second opening will likely have a liberalized open area with waters in Taku Inlet closed north of Cooper Point, followed by two openings with the north line shifted up to Jaw Point. The maximum mesh size restriction will likely remain in place through the third opening and night closures will likely remain in place through the second opening. Taku Inlet will likely only open for two days through the third opening and subsequent openings will be based on inseason fishery performance and stock assessment information.

The District 11 fishery will be managed through mid-August primarily based on sockeye salmon abundance. Run strength will be evaluated using harvest and CPUE data, and weekly inriver run size estimates derived from the Taku River fish wheel mark–recapture project. The inriver run size estimates produced from this project will incorporate a dropout rate which will give more confidence that the run size is not being overestimated and allow managers to more fully consider AC targets on a weekly basis. This may allow for increased opportunity on Taku River sockeye salmon if weekly AC is considerable. Contribution of enhanced stocks of sockeye salmon will be estimated inseason by analysis of salmon otoliths sampled from the commercial harvests. The age and stock compositions of the commercial harvest of wild sockeye salmon will be estimated after the fishing season by scale pattern and GSI analysis.

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

1. sustainable production of wild sockeye salmon from Crescent and Speel lakes
2. manage Port Snettisham enhanced sockeye salmon returns in a manner that does not prevent achieving escapement goals or PST harvest sharing agreements for Taku River salmon stocks
3. assessment programs shall be conducted to estimate Port Snettisham wild sockeye salmon stock escapements and contributions of enhanced sockeye salmon to the District 11 commercial fishery
4. common property harvests in the Speel Arm SHA shall be conducted by limiting time and area to protect wild sockeye salmon returns

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

Pink Salmon

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

Coho Salmon

Beginning in mid-August, management of the Taku/Snettisham drift gillnet fishery will be based primarily on the run strength of 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. 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. The preseason terminal run forecast of Taku River coho salmon provides the U.S. with an AC of approximately 35,000 fish, openings could be liberalized if inseason estimates are similar to the forecast.

LYNN CANAL FISHERY

INTRODUCTION

The Lynn Canal drift gillnet fishery operates in the waters of District 15 and is divided into three regulatory sections: 15-A (upper Lynn Canal), 15-B (Berners Bay), and 15-C (lower Lynn Canal). This fishery has historically targeted sockeye salmon from late June through September and fall chum and coho salmon from mid-August to mid-October. In recent decades, the fishery has harvested substantial numbers of hatchery summer chum salmon in Section 15-C returning to DIPAC release sites at Boat Harbor and Amalga Harbor THAs. Section 15-B targets coho salmon in the fall but this area has been closed since 2010.

2020 OUTLOOK

Chinook Salmon

The 2020 Chilkat River Chinook salmon preseason total run forecast is 1,550 large fish (≥age-5). This forecast is higher than the 2019 forecast but still below the lower bound of the escapement goal range of 1,750–3,500 fish. The forecast is based on the sibling relationships observed in age classes and run data over the previous nine years. The Chilkat River Chinook salmon stock was designated as a stock of concern at the 2018 BOF meeting after multiple years (2012–2014 and 2016–2018) of failing to achieve escapement goals. The BOF approved an action plan that outlines management actions to reduce harvest of Chilkat River Chinook salmon stocks.

Sockeye Salmon

Wild sockeye salmon returning to the Chilkat and Chilkoot lakes make up the majority of sockeye salmon harvest in District 15, with additional contribution from the Chilkat River mainstem stock. The parent-year escapements and zooplankton abundance suggest an average return of sockeye salmon to Chilkat Lake in 2020. The parent years for the 2020 return to Chilkat Lake had

escapements of 70,500 sockeye salmon in 2014 and 176,000 fish in 2015, near the lower bound and above the upper bound of the escapement goal range of 70,000–150,000 fish, respectively. Five-year old fish account for 60% of the Chilkat Lake sockeye salmon return and escapements from 2015 will be a major component of the 2020 run. Zooplankton prey observations during the first summer of lake rearing (2016) for these brood years indicated slightly below average abundances of copepods and cladocerans.

Parent-year escapements and strong zooplankton and presmolt estimates suggest an average to above average run of sockeye salmon to Chilkoot Lake in 2020. The Chilkoot Lake escapement estimate during the dominant parent brood year of 2015 was 72,000 fish, within the sustainable escapement goal range of 38,000–86,000 fish. The 2015 escapement was one of the highest on record for the dominant age class of age-1.3 fish. Zooplankton prey observations during the first summer of lake rearing for this dominant brood year was 180% above average and the rearing fry population estimate of 1.3 million fish was 40% above average.

Chum Salmon

Approximately 1.3 million summer chum salmon are forecasted to return to DIPAC release sites at Boat Harbor and Amalga Harbor THAs. The common property harvest is expected to be 909,000 chum salmon. This forecast is below the recent 10-year and long-term historical averages.

The 2019 fall chum salmon returns to the Chilkat River are expected to be average. The parent-year escapement for the 2020 Chilkat River fall chum salmon run was estimated to be 216,000 fish, within the SEG range of 75,000–250,000 fish.

Coho Salmon

The Chilkat River followed by the Berners River are the largest contributors of coho salmon to the District 15 harvest. Parent-year escapements for the 2020 coho salmon run to the Chilkat River were estimated at 26,300 in 2016 and 34,500 fish in 2017, below and within the BEG range of 30,000–70,000 fish. Parent-year escapements for the 2020 coho salmon run to Berners River were 8,400 and 9,000 fish, both above the upper bound of the BEG range of 3,600–8,100 fish. Ocean conditions for coho salmon growth and survival data from NOAA trawl surveys in 2019 indicate that coho salmon returns to Lynn Canal will likely be average in 2020.

Pink Salmon

The 2020 pink salmon returns to the northern SEAK inside waters are expected to be below average. Parent-year pink salmon escapements in 2018 were very poor throughout the northern part of the region and the escapement goal was not met. Juvenile pink salmon CPUE from the 2019 NOAA trawl surveys in Icy and Chatham straits was the third lowest in the 23 years of NOAA surveys. If returns are stronger than 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. Chinook, chum, and coho salmon escapement to the Chilkat River drainage are observed through fish wheel catches and final sockeye salmon escapements to Chilkat and Chilkoot lakes are estimated by fish weir counts. Specific goals include:

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

MANAGEMENT PLAN

The gillnet fishery in Lynn Canal, District 15, will be managed according to the *Lynn Canal and Chilkat River King Salmon Fishery Management Plan* (5 AAC 33.384), the *Policy for the management of mixed stock salmon fisheries* (5 AAC 39.220), and the Board of Fisheries guidelines reported in the *Chilkat River and King Salmon River King Salmon Stock Status and Action Plan, 2018* (Lum and Fair 2018).

In order to avoid conflicts with sport fisheries, the Section 15-C drift gillnet fishery will not be open concurrent with the 2020 Juneau Golden North Salmon Derby (August 14–16). That week's opening will not open until Monday, August 17.

Chinook Salmon

In September 2017, the department recommended to the Alaska Board of Fisheries (BOF) that the Chilkat River Chinook salmon run be designated as a stock of management concern. In 2018, the board accepted the department's Stock of Concern recommendations for Chilkat River Chinook salmon populations. Despite significant changes to the commercial fisheries in 2018, the Chilkat River Chinook salmon BEG was not achieved. In response, the department exceeded the BOF Action Plan in 2019 in order to reduce more Chinook salmon harvest. The 2019 drainage wide escapement estimate was 2,028 large Chilkat Chinook salmon, which was above the lower bound of the escapement goal of 1,750 fish. This was the first time the Chilkat River stock met the escapement goal since 2015.

The 2020 preseason forecast for Chilkat River Chinook salmon is projected to be below the minimum inriver escapement goal range. Management strategies in 2020 will again focus on minimizing harvests of Chilkat River Chinook salmon stocks by employing a conservative management approach similar to 2019.

Conservation measures implemented by the department to minimize Chinook salmon harvest may include a six-inch maximum mesh size restriction and night closures from 10:00 p.m. to 4:00 a.m. districtwide through July 18 (SWs 26–29). Time and area restrictions outlined in the following sections will also be implemented to minimize the harvest of Chinook salmon.

Sockeye Salmon

District 15 will open for directed sockeye salmon fishing on the third Sunday in June (June 21). District 15 management will be based on inseason observations of Chinook salmon returns to the Chilkat River and sockeye salmon returns to Chilkat and Chilkoot lakes. Run strength will be evaluated using fishery performance and stock assessment data. Inseason stock composition of the

sockeye salmon harvest in the District 15 commercial drift gillnet fishery will be estimated through genetic stock identification.

Sockeye salmon harvest will be affected by time, area, and gear restrictions due to Chinook salmon conservation. Section 15-A will be limited to two days a week through July 25 in those waters south of Eldred Rock Lighthouse and east of a line from Eldred Rock Lighthouse to a point 2.0 nmi from the eastern shoreline. A six-inch maximum mesh size restriction and night closures will be in effect and likely remain in place through July 25.

In Section 15-C, time and area restrictions that may affect sockeye salmon harvest include limiting the open waters to the "Postage Stamp" (waters of Section 15-C south of the latitude of Vanderbilt Reef Light and east of a line from Vanderbilt Reef Light to Little Island Light) for a maximum of two days through July 11 (SW 28). A six-inch maximum mesh size restriction and night closures will likely be in effect through July 18. This includes outside waters of the Boat Harbor THA. Subsequent openings will be based on traditional Lynn Canal management practices through mid-August.

Chum Salmon

The majority of the summer chum salmon harvest in lower Lynn Canal (Section 15-C) is comprised of hatchery fish returning to the DIPAC release site in the Boat Harbor THA. Area, time, and gear restrictions outlined in previous sections to minimize Chinook salmon harvest will likely impact the fleet's ability to harvest chum salmon outside the Boat Harbor THA. The Chilkat River fall chum salmon run begins in late August. This run will be monitored by evaluation of fishery performance data in the District 15 drift gillnet fishery. If the indications are for a strong run, fishing area may be expanded to include the Chilkat Inlet in Section 15-A.

Coho Salmon

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

Pink Salmon

Pink salmon start their return to Lynn Canal in the beginning of July and are harvested in Sections 15-A and 15-C, incidental to sockeye and enhanced summer chum salmon. If the pink salmon return is strong as indicated by aerial surveys and there are no sockeye salmon concerns, Lutak Inlet may open for directed pink salmon fisheries.

TERMINAL HARVEST AREA FISHERIES

During the 2020 season, drift gillnet terminal harvest area fisheries can be expected in Deep Inlet, Neets Bay, Nakat Inlet, Carroll Inlet, Anita Bay, and Boat Harbor to harvest salmon returning to DIPAC, NSRAA, and SSRAA enhancement facilities. Openings in the Speel Arm SHA are contingent on meeting the sockeye salmon escapement goal for Speel Lake.

NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION TERMINAL AREA FISHERIES

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

Deep Inlet Terminal Harvest Area

NSRAA expects runs of 1,478,000 chum, 10,700 Chinook, and 110,000 coho salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2020. This season, 100,000 chum salmon are needed for broodstock and NSRAA does not anticipate cost recovery operations in the Deep Inlet THA. A portion of the Deep Inlet THA may be closed in late August to facilitate broodstock collection for the Medvijie facility. The majority of the common property harvest can be expected to take place in the Deep Inlet THA by drift gillnet and purse seine gear, but some harvest is likely to occur outside the THA by troll and purse seine gear as well.

The Deep Inlet THA fishery will be managed in accordance with the *District 13: Deep Inlet Terminal Harvest Area Salmon Management Plan* (5 AAC 33.376). The plan provides for distribution of the harvest of hatchery-produced salmon between the purse seine and drift gillnet fleets. The Alaska Board of Fisheries, during its January 2018 meeting, passed regulations requiring the time ratio for gillnet openings to seine openings as 1:1 for the 2019 and 2020 seasons.

For the time period of June 2–6, gillnet fishing is scheduled on June 2 and June 3, purse seine fishing is scheduled on June 4 and June 5, and the troll fishery is scheduled for June 6. For the remainder of the 2020 season (June 7 to September 26) purse seine fishing is scheduled on Sunday, Thursday, and Friday of each week and drift gillnet fishing is scheduled on Monday, Tuesday, and Wednesday. The troll fishery will be open on Saturdays of each week and during time periods when net fisheries are closed. The Deep Inlet THA west of 135°20.75′ W long will be closed to purse seine and drift gillnet gear beginning with the first emergency order of the season through June 20. Details of the 2020 season fishing schedule and area for the Deep Inlet THA were announced in an ADF&G advisory announcement released on April 15, 2020. When changes are necessary, the revised schedule will be issued in a subsequent advisory announcement.

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 2020, drift gillnet fishermen will be required to fish with a minimum mesh size of six inches through June 20. 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.

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 2020 by emergency order under authority of 5 AAC 39.325, *Full Retention and Utilization of Salmon*. This requires that all salmon harvested in net fisheries are retained, utilized, and reported on fish tickets whether they are sold or retained for personal use.

In early September, the Deep Inlet THA boundaries may be adjusted by ADF&G to reduce harvest of wild coho salmon returning to Salmon Lake or hatchery coho salmon returning to Medvejie

Hatchery needed for broodstock. THA boundary adjustments to protect coho salmon will be based on historical run timing and inseason observations of abundance. Since voluntary compliance with reporting of coho salmon in the Deep Inlet Terminal Harvest Area fishery has in the past been poor, and ADF&G needs detailed information on coho and sockeye salmon harvest patterns, personnel from ADF&G or Alaska Wildlife Troopers 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 2020 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, Carroll Inlet, Nakat Inlet, Crystal Lake, 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 advisory announcement 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

ADF&G in consultation with SSRAA, shall manage the Neets Bay THA. In 2020, SSRAA is expecting a total run of 662,300 summer chum, 52,900 fall chum, 108,800 coho, and 11,400 Chinook salmon to return to Neets Bay.

The Neets Bay THA will not open May 1 as in previous years, but will be delayed until Monday, June 15, 2020. Beginning at 12:00 noon, Wednesday, June 17 through 12:00 noon, Monday, July 6, 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. The Neets Bay THA will not expand to the longitude of Chin Point in 2020 until July 1 due to wild stock Chinook concerns.

For 2020, the net rotational fishing schedule will again be modified during SWs 24–26 allowing additional closures and modified lines to conserve Unuk River Chinook salmon. This loss of time and area will coincide with the period when Unuk River Chinook salmon are present in the area according to CWT data. The open fishing area for the Neets Bay THA will be restricted initially to those waters east of the mid bay line that begins on the northern shore of Neets Bay at 55°47.62′ N lat, 131°34.50′ W long, to the southern shore of Neets Bay at 55°46.83′ N lat, 131°34.36′ W long, and then expand to those waters east of the easternmost tip of Bug Island at the longitude of 131°39.14′ W long.

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.

Details of the 2020 season fishing schedule and area for the Neets Bay THA were announced in an ADF&G advisory announcement released on March 31, 2020. Additional fisheries in Neets Bay will be announced by advisory announcement and opened by emergency order in consultation with SSRAA.

Nakat Inlet Terminal Harvest Area

For 2020, SSRAA forecasted 128,900 summer chum, 57,600 fall chum, and 29,700 coho salmon 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.

Carroll Inlet Terminal Harvest Area

For the 2020 season, SSRAA has forecasted a total return of 7,000 Carroll Inlet Chinook salmon. In accordance with regulation, Carroll Inlet THA will be open June 1, through July 1, 2020 for rotational fisheries to provide harvest for hatchery-produced Chinook salmon. Rotational net fisheries are expected to begin at 12:00 noon, Monday, June 15 through 12:00 noon, Tuesday, June 30, 2020. Details of the 2020 season fishing schedule and area for the Carroll Inlet THA were announced in an ADF&G advisory announcement released on March 31, 2020.

Crystal Lake Terminal Harvest Area

The projected Crystal Lake Chinook salmon run is 3,000 adults, of which 1,600 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*, if the projected terminal run is over 4,000 fish, the commercial fishery will be opened to harvest 50% of the projected return 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 2020.

The total Crystal Lake Hatchery coho salmon run is expected to be 6,300 fish. An estimated 2,500 fish are expected to reach the Wrangell Narrows-Blind Slough terminal area. No commercial drift gillnet fishery is anticipated in the THA in 2020.

Anita Bay Terminal Harvest Area

For 2020, 11,900 Chinook, 366,300 summer chum, and 11,900 coho salmon are forecasted to return. The initial opening of Anita Bay will be delayed until June 1 to mitigate potential harvest of wild Chinook salmon. Additionally, Anita Bay will be closed to commercial salmon fishing from 12:01 a.m., Monday, July 13, through 11:59 p.m., Sunday, August 9, to facilitate cost recovery efforts. A rotational fishery will begin for drift gillnet and purse seine fleets as described in the *District 7: Anita Bay Terminal Harvest Area Salmon Management Plan*. This rotational fishing period will be in place for the duration of the 2020 season. Details of the 2020 season fishing schedule and area for the Anita Bay THA will be announced in an ADF&G advisory announcement in mid to late April.

DOUGLAS ISLAND PINK AND CHUM INC. TERMINAL AREA FISHERIES

Boat Harbor Terminal Harvest Area

Approximately 1.3 million summer chum salmon are forecasted to return to DIPAC release sites at Boat Harbor THA (BHTHA) and Amalga Harbor SHA in 2020. The common property harvest is expected to be 909,000 chum salmon.

The BHTHA will open by regulation on the third Sunday in June for commercial harvest of DIPAC hatchery summer chum salmon. Due to Chinook salmon conservation concerns, intended management actions that may influence the harvest of hatchery chum salmon include time, area, and gear restrictions in outside waters of the Boat Harbor THA. Restrictions will likely include limiting the open outer waters within 1.0 nmi of the shoreline for two days per week with a maximum mesh size restriction of six inches and night closures through July 18. Depending on aerial survey observations of wild chum salmon strength returning to the Endicott River, the Boat Harbor THA northern boundary may be reduced to the latitude of Danger point. Inside Boat Harbor (west of 135°09.57′ W long) will open seven days a week without gear or time restrictions.

Speel Arm Special Harvest Area

The forecast total run of Snettisham Hatchery sockeye salmon in 2020 is 226,000 fish which is 174% of the 2019 total run of 130,000 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 Speel Arm SHA, which is located in the waters of Speel Arm north of 58°03.42′ N lat. 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. The ADF&G will 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. The ADF&G will include notice in the regionwide 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.

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.

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

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

TABLES AND FIGURES

Table 1.–Southeast Alaska commercial drift gillnet salmon harvest, in numbers, by area, harvest type and species, 2019.

Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total
District 1						
Traditional (Tree Point)	1,313	15,986	28,800	204,971	182,457	433,527
Terminal Harvest Areas	3,741	223	9,056	7,660	89,816	110,496
Annette Island	505	2,255	14,169	307,147	58,249	381,762
District 6						
Traditional (Prince of Wales)	1,073	23,844	59,304	424,495	113,161	621,877
District 7						
Terminal Harvest Area	4,048	128	7,972	2,564	47,149	61,861
District 8						
Traditional (Stikine)	4,253	6,591	9,478	10,884	50,653	81,859
District 11						
Traditional (Taku/Snettisham)	1,201	95,421	23,235	69,137	245,962	434,956
Terminal Harvest Area	157	9,605	238	2,587	638	13,225
District 13						
Terminal Harvest Area	3,964	1,976	10,646	6,511	421,556	444,653
District 15						
Traditional (Lynn Canal)	975	228,111	47,417	110,730	608,929	996,162
Terminal Harvest Area	121	13,422	306	32,841	567,114	613,804
Subtotals						
Traditional	8,815	369,953	168,234	820,217	1,201,162	2,568,381
Terminal Harvest Areas	12,031	25,354	28,218	52,163	1,126,273	1,244,039
Common Property Total	20,846	395,307	196,452	872,380	2,327,435	3,812,420
Hatchery Cost Recovery	0	0	43	0	5	48
Annette Island	505	2,255	14,169	307,147	58,249	382,325
Total	21,351	397,562	210,664	1,179,527	2,384,689	4,193,793

[a] Chinook salmon harvest includes jacks.

Table 2.–Southeast Alaska annual District 1 traditional and terminal harvest areas (Nakat Inlet, Neets Bay, and Carroll Inlet) drift gillnet salmon harvest, in numbers, by species, 2009 to 2019.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
2009	4,922	70,607	68,522	174,052	339,159	657,262
2010	3,302	64,747	99,081	597,138	458,622	1,222,890
2011	4,661	91,825	36,183	357,811	566,508	1,056,988
2012	4,024	64,394	73,576	217,281	757,675	1,116,950
2013	4,483	55,948	111,133	763,434	329,680	1,264,678
2014	4,473	57,192	116,437	763,838	274,202	1,216,142
2015	3,347	29,173	58,004	157,016	820,271	1,067,811
2016	3,110	41,288	50,021	608,351	448,724	1,151,494
2017	3,648	25,997	43,359	240,143	338,617	651,764
2018	4,275	20,812	44,120	124,356	305,726	597,872
2019	**3,741**	**223**	**9,056**	**7,660**	**89,816**	**110,496**
Average 2009–2018	4,025	52,198	70,044	400,342	463,918	1,000,385

[a] Chinook salmon harvest includes jacks.

Table 3.–Southeast Alaska annual Prince of Wales (District 6) traditional drift gillnet salmon harvest, in numbers, by species, 2009 to 2019.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
2009	2,138	111,984	144,569	143,589	287,707	689,987
2010	2,473	112,450	225,550	309,795	97,948	748,216
2011	3,008	146,069	117,860	337,169	158,096	762,202
2012	1,853	45,466	121,418	129,646	104,307	402,690
2013	2,202	49,223	160,659	474,551	94,260	780,895
2014	2,092	58,430	286,815	415,392	106,243	868,972
2015	2,723	121,921	112,561	224,816	232,390	694,411
2016	2,094	106,649	122,101	358,309	130,236	719,389
2017	1,521	45,005	49,382	302,033	234,349	632,290
2018	3,247	25,203	112,000	348,277	176,392	665,119
2019	**1,073**	**23,844**	**59,304**	**424,495**	**113,161**	**621,877**
Average 2009–2018	**2,335**	**82,240**	**145,292**	**304,358**	**162,193**	**696,417**

[a] Chinook salmon harvest includes jacks.

Table 4.–Southeast Alaska annual Stikine River (District 8) traditional drift gillnet salmon harvest, in numbers, by species, 2009 to 2019.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
2009	2,830	36,680	30,860	27,010	190,800	288,180
2010	2,359	32,737	42,772	58,610	51,005	187,483
2011	5,321	51,478	20,720	65,022	142,526	285,067
2012	8,027	21,997	20,100	16,374	240,569	307,067
2013	10,817	20,609	43,669	116,026	103,365	294,486
2014	8,023	19,808	30,184	33,830	84,771	176,616
2015	13,845	22,896	30,153	35,926	166,009	268,829
2016	10,024	70,143	22,146	35,250	200,653	338,216
2017	3,818	14,282	13,592	49,027	177,119	257,838
2018	2,649	5,731	8,823	15,643	133,812	166,658
2019	**4,253**	**6,591**	**9,478**	**10,884**	**50,653**	**81,859**
Average 2009–2018	**6,771**	**29,636**	**26,302**	**45,272**	**149,063**	**257,044**

[a] Chinook salmon harvest includes jacks.

Table 5.–Southeast Alaska annual Taku/Snettisham (District 11) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2009 to 2019.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
2009	6,800	62,070	36,615	56,801	918,350	1,080,636
2010	1,685	76,614	62,241	132,881	488,918	762,339
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	927,014
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
2017	1,086	113,818	16,002	230,243	885,694	1,246,843
2018	783	92,889	35,930	24,300	517,812	671,714
2019	**1,358**	**105,026**	**23,473**	**71,724**	**246,600**	**448,181**
Average 2009–2018	**1,860**	**128,263**	**36,771**	**148,267**	**598,744**	**913,905**

[a] Chinook 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, 2009 to 2019.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
2009	681	126,594	35,820	163,057	845,710	1,171,862
2010	871	100,973	65,870	171,054	764,629	1,103,397
2011	1,178	63,788	33,776	508,930	1,115,821	1,723,493
2012	2,736	224,643	23,321	353,271	1,567,227	2,171,198
2013	1,148	122,103	68,009	127,703	1,509,501	1,828,464
2014	1,396	234,682	58,117	90,602	1,303,009	1,687,806
2015	523	131,577	23,456	629,209	836,831	1,621,596
2016	475	188,844	30,534	81,970	931,919	1,233,742
2017	1,205	39,716	29,829	191,253	1,575,039	1,837,042
2018	1,156	81,688	45,655	22,254	1,042,476	1,193,229
2019	**1,096**	**241,533**	**47,723**	**143,571**	**1,176,043**	**1,609,966**
Average 2009–2018	**1,137**	**131,461**	**41,439**	**233,930**	**1,149,216**	**1,557,183**

[a] Chinook 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	301,428	41,597	35,471	*-166,426*
2014	549,685	200,000	349,685	48,257	29,023	*-185,660*
2015	868,744	200,000	668,744	92,287	14,867	*-263,080*
2016	442,420	200,000	242,767	33,454	14,388	*-282,147*
2017	368,653	200,000	168,653	23,274	12,445	*-292,976*
2018	315,972	200,000	115,972	16,004	11,303	*-297,677*
2019[a]	377,737	200,000	177,737	24,528	11,268	*-310,937*
2020[b]	494,000	200,000	294,000	40,572	TBD	TBD

[a] Preliminary Information
[b] Department of Fisheries and Oceans forecast
TBD = To be determined

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	SEG	38,000 to 86,000	Weir Count
Sockeye[a]	Chilkat Lake Total	BEG	70,000 to 150,000	DIDSON Count
Coho[b]	Berners River	BEG	3,600 to 8,100	Peak Foot Count
Coho[c]	Chilkat River Combined	BEG	30,000 to 70,000	Sum of Peak Foot Index Counts
Chinook[d]	Chilkat River Combined	BEG	1,750 to 3,500	Mark-Recapture Estimate
Fall Chum[e]	Chilkat River Total	SEG	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. 2017

Table 9.–Expected 2020 returns to SSRAA enhancement projects by release location.

Species/Run	Release Location	Common property Harvest	Terminal	Total Return
Coho	Herring Cove/Whitman	6,700	2,900	9,500
Coho	Nakat Inlet	20,800	8,900	29,700
Coho	Anita Bay	8,900	3,000	11,900
Coho	Neets Bay	76,200	32,600	108,800
Coho	Crystal Lake	3,800	2,500	6,300
Coho	Klawock	111,200	47,600	158,800
Coho	Port Asumcion	4,100	1,800	5,900
Summer Coho	Neck Lake	20,400	8,800	29,200
Summer Coho	Herring Cove/Whitman	3,100	3,100	6,200
Chinook	Whitman Lake	2,900	4,400	7,300
Chinook	Anita Bay	5,300	5,700	11,000
Chinook	Carroll Inlet	3,100	3,900	7,000
Chinook	Neets Bay	5,500	5,900	11,400
Chinook	Port St. Nick	800	2,700	3,500
Chinook	Crystal Lake	1,400	1,600	3,000
Summer Chum	Neets Bay	516,100	1,395,300	1,911,400
Summer Chum	Anita Bay	238,100	128,200	366,300
Summer Chum	Burnett	152,600	152,600	305,100
Summer Chum	Kendrick Bay	338,700	112,900	451,600
Summer Chum	Nakat Inlet	64,500	64,500	128,900
Summer Chum	Port Asumcion	Unknown	Unknown	37,300
Fall Chum	Burnett	21,000	21,000	42,000
Fall Chum	Nakat Inlet	37,400	20,200	57,600
Fall Chum	Neets Bay	15,900	37,000	52,900

Table 10.–Expected 2020 returns to Northern SEAK area enhancement projects by hatchery organization and release location.

Species	Release Location	Common Property Harvest	Cost Recovery	Broodstock	Total Return
		NSRAA			
Chum	Medvejie/Deep Inlet	1,378,000	0	100,000	1,478,000[a]
Chum	Hidden Falls	164,000	0	200,000	364,000
Chum	Crawfish Inlet	Unavailable[b]	Unavailable[b]	0	1,579,000
Chum	SE Cove	306,000	0	0	306,000
Chum	Thomas Bay	222,000	0	0	222,000
Chinook	Medvejie/Deep Inlet	6,311	386	4,000	10,697
Chinook	Hidden Falls	342	0	500	842
Coho	Hidden Falls	14,800	2,200	10,000	27,000
Coho	Deer Lake (Mist Cove)	32,400	38,600	NA	71,000
Coho	Deep Inlet/Medvejie	107,000	NA	3,000	110,000
		Armstrong Keta, Inc.			
Pink	Port Armstrong	Unavailable	Unavailable	Unavailable	368,000
Chum	Port Armstrong	Unavailable	Unavailable	Unavailable	558,000
Coho	Port Armstrong	Unavailable	Unavailable	Unavailable	114,000
Chinook	Port Armstrong	Unavailable	Unavailable	Unavailable	250
		Sitka Sound Science Center			
Pink	Crescent Bay	Unavailable	Unavailable	Unavailable	163,000
Chum	Crescent Bay	Unavailable	Unavailable	Unavailable	38,000
Coho	Crescent Bay	Unavailable	Unavailable	Unavailable	13,000
		Gunnuk Creek Hatchery			
Chum	SE Cove	306,000	0	0	306,000
Chum	Kake	3,000	0	0	3,000
		DIPAC			
Chum	Lynn Canal/Amalga	908,700	422,500	0	1,331,200
Chum	Taku/Stephens Passage	345,100	114,900	190,000	650,000

[a] Projections for Medvejie/Deep Inlet includes 143,000 chum salmon from the Sitka Sound Science Center.

[b] NSRAA intends to conduct cost recovery in Crawfish Inlet in 2020. The total number of fish available for common property harvest is unknow at this time; fish needed to satisfy cost recovery needs will be dependent on the final bid price.

(Note: Common property harvest estimates of Chinook and coho salmon include sport harvest).

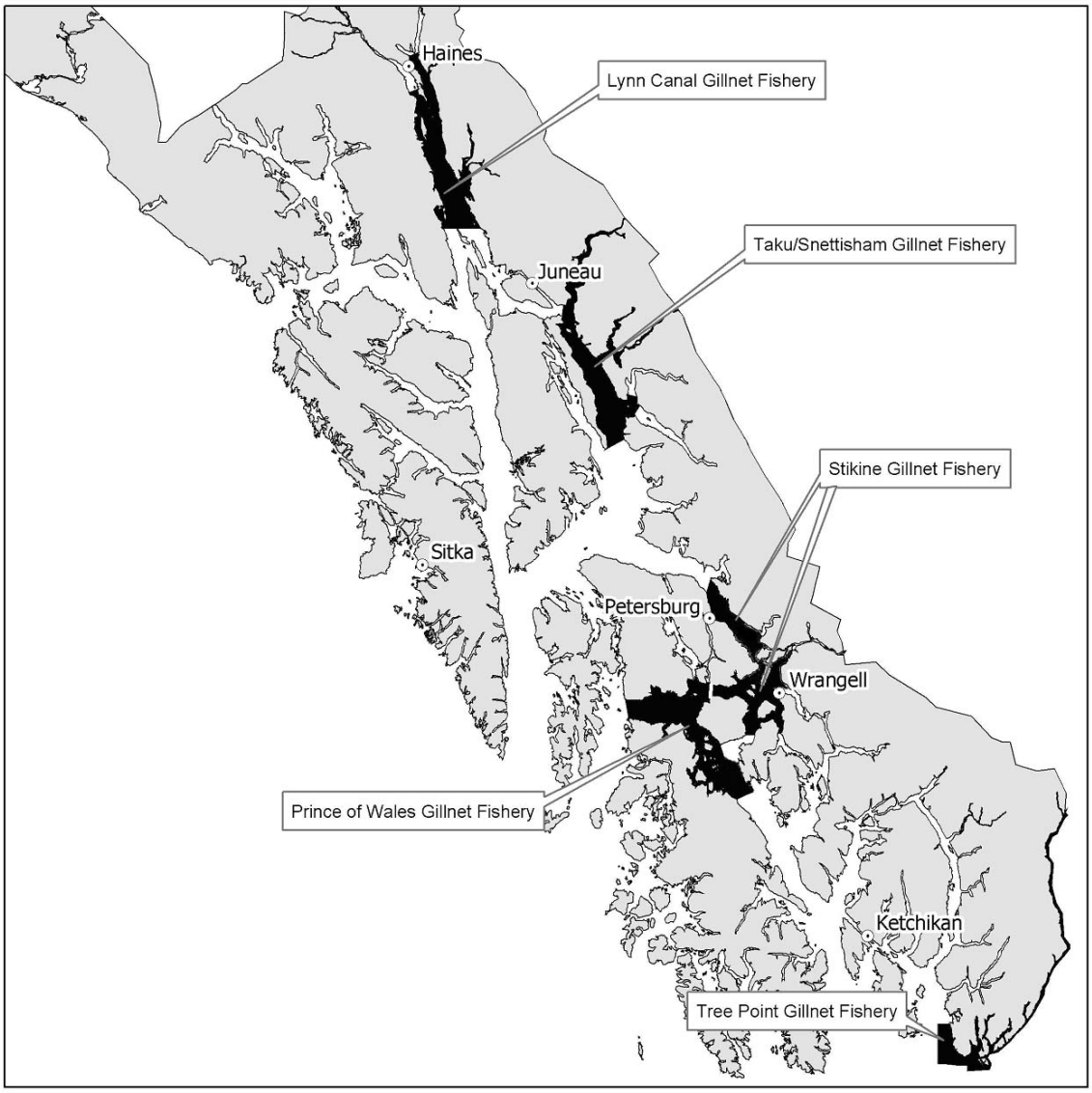

Figure 1.–Traditional drift gillnet fishing areas in Southeast Alaska.