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2021 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 2021. 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), Carroll 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, 2021.

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 2021. Average, unless defined otherwise, refers to the most recent 10-year average (2010–2019). Harvest, escapement, and run forecasts and outlooks, unless otherwise indicated, are in numbers of fish. ADF&G statistical weeks for the 2021 drift gillnet fishing season can be referenced in Table 11.

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 2020, 461 permits were issued, of which 397 (86%) were actively fished (CFEC 2020). 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 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 drift gillnet harvest for each species by fishery area and type for the 2020 season 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. 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 2021 Chinook salmon preseason forecasts for the Taku and Stikine Rivers are below their escapement goal ranges resulting in no directed fisheries and conservative actions in the early sockeye salmon fishery openings as has occurred the past several seasons.

SEAK Chinook salmon stocks are currently experiencing a cycle of very low abundance. Over the past five years (2016–2020), the eleven monitored Chinook salmon index systems did not meet escapement goals 60% of the time. In 2020, five of the eleven monitored Chinook salmon index systems were below their escapement goal ranges. In 2021, four of the five systems for which forecasts are developed have total run projections below their escapement goal ranges. Three of these systems, the Stikine, Taku, and Chilkat Rivers, are within the District 8, District 11, and District 15 drift gillnet fishing areas. Commercial, sport, personal use, and subsistence fisheries will be restricted throughout SEAK to conserve Chinook salmon. More information on Chinook salmon management actions in specific fisheries can be found below.

STOCKS OF CONCERN

The *Policy for Management of Sustainable Salmon Fisheries* (SSFP; 5 AAC 39.222) directs the Alaska Department of Fish and Game (ADF&G or department) to provide the Alaska Board of Fisheries (board) with reports on the status of salmon stocks and identify any salmon stocks that present a concern related to yield, management, or conservation during regularly scheduled board meetings. In October 2017, the department recommended that the board designate Unuk, King Salmon, and Chilkat Rivers stocks of Chinook salmon, and the McDonald Lake stock of sockeye salmon, as a "stock of management concern" and the board adopted these recommendations in January 2018. In October 2020, the department recommended continuing the designation for these stocks, and additionally recommended that the Chickamin, Stikine, and Taku Rivers, and Andrew Creek stocks of Chinook salmon be added as a "stock of management concern".

The stock of concern designations were based on guidelines established in the SSFP, which describes a management concern as "a concern arising from a chronic inability, despite use of specific management measures, to maintain escapements for a salmon stock within the bounds" of the established escapement goal whether it be a sustainable escapement goal (SEG), biological escapement goal (BEG), optimal escapement goal (OEG), or other specified management objective. Chronic inability is further defined in the SSFP as the "continuing or anticipated inability to meet escapement thresholds over a four-to-five-year period, which is approximately the generation time of most salmon species."

The "stock of concern" designation requires the department to develop a draft action plan to be presented to the board. The action plan provides the department's assessment of the stock(s) of concern, summarizes historical run sizes, and describes the existing regulations and emergency order (EO) authority that the department follows to manage for escapement. The plan outlines potential management actions for the sport, commercial, subsistence, and personal use fisheries, and research projects. Criteria that must be met for future removal of the stock of concern designation are also outlined.

Action plans will be presented to the board and public in draft form for the 2022 Alaska Board of Fisheries Southeast and Yakutat Finfish and Shellfish meeting. The department will finalize the reports and include descriptions of any management measures or recommendations from the board. Final action plans will be published in the ADF&G Regional Informational Report series after the board meeting, and until that time, the department will continue to manage commercial, sport and personal use fisheries per the 2018 action plans and the Pacific Salmon Treaty (PST).

SALMON RUN EXPECTATIONS

In SEAK, the department issues a regionwide preseason harvest forecast for pink salmon. The department also produces preseason forecasts for several specific stocks including Chinook salmon from the Chilkat River and Chinook and sockeye salmon from Taku and Stikine Rivers. Private nonprofit hatchery operators also develop preseason forecasts for salmon returning to hatchery release sites throughout SEAK. The projected runs of some 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 run relative to historical levels.

The 2021 Stikine River Chinook salmon terminal run forecast is 9,900 large fish (Chinook salmon ≥ 660 mm mid-eye to fork of tail fork length (METF), primarily age 1.3 and older). This forecast is well below the average of 19,200 fish and below the escapement goal range of 14,000 to 28,000 fish and does not provide for directed or assessment fisheries in either the U.S. or Canada. In addition, both countries will be utilizing restrictions during the directed sockeye salmon fishery. Details of the management strategy will be in the Prince of Wales and Stikine Fisheries section of this plan.

The 2021 preseason terminal run forecast for Taku River large Chinook salmon is 10,300 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.

The 2021 preseason total run forecast for Chilkat River Chinook salmon is 1,500 large fish. The forecast is below the average escapement of 1,600 fish and below the lower end of the escapement goal range of 1,750 to 3,500 large fish. Restrictive management measures will be taken in early openings of the District 15 directed sockeye salmon fishery as per the 2018 action plan.

For 2021, the preliminary terminal run forecast for Stikine River sockeye salmon is 56,000 fish, which constitutes a well below average run size (108,000 fish). The Taku River wild sockeye terminal run is expected to total 140,000 fish, slightly lower than the average terminal run size of 144,000 fish. The Taku River enhanced sockeye salmon run is again expected to be minimal and below the average terminal run size of approximately 10,000 fish. Chilkat and Chilkoot Lakes sockeye salmon runs are expected to be average to below average. Douglas Island Pink and Chum, Inc. (DIPAC) forecasts Snettisham Hatchery sockeye salmon run of 106,000 fish in 2021.

The cumulative regionwide 2021 forecast of hatchery-produced summer chum salmon runs is 7.1 million fish. This includes 1.1 million fish to four DIPAC locations, 2.5 million fish to six Northern Southeast Regional Aquaculture Association (NSRAA) locations, and 3.1 million fish to six Southern Southeast Regional Aquaculture Association (SSRAA) locations (Tables 9 and 10). A portion of these runs will be harvested in traditional drift gillnet fisheries in Districts 1, 6, 8, 11, and 15, and above what is needed for broodstock and cost recovery 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 2010 to 2019, and during this period, chum salmon have accounted for 60% of salmon harvested.

With the exception of the Taku River coho salmon stock, wild coho salmon runs are not forecasted. The Taku River coho salmon run is forecasted to be average and general expectations for coho salmon runs are expected to be consistent with the recent averages. Alaska hatchery coho salmon contributions to drift gillnet fisheries in 2020 was estimated at 29,000 fish, around 24% of total drift gillnet coho salmon harvests. The largest portion of the harvest was from fish returning to the Neets Bay Hatchery with substantial harvest coming from Macauley Hatchery and Whitman Lake releases.

The SEAK pink salmon harvest forecast for 2021 is 28 million fish, with a range of 19 to 42 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 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 2021 drift gillnet fishery are as follows:

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

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

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 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 wild 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 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 traditional fishing 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 2021 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 SEAK.

U.S./CANADA PACIFIC SALMON TREATY

The 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.

CHINOOK SALMON

For 2021, 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 PST. 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 2021 drift gillnet treaty Chinook salmon allocation is 5,800 fish. The need for management measures to ensure drift gillnet harvest complies with the drift gillnet allocation will depend on inseason evaluation of Chinook salmon harvest rates. 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 Transboundary River (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 2021. 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 both Districts 11 and 15 are managed under the 2018 Chilkat River and King Salmon River king salmon action plan (Lum and Fair 2018b). Management actions taken in the 2020 District 15 drift gillnet fishery exceeded the provisions of the 2018 action plan and similar management actions are expected in 2021.

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 (Lum and Fair 2018a, Lum and Fair 2018b). 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 runs to other SEAK systems in the past five 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 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 commercial, sport, personal use, and subsistence, to reduce harvest of wild Chinook salmon. More information about the basis for 2021 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
2021 Southeast Alaska Chinook Salmon All Gear Harvest Limit press release:
http://www.adfg.alaska.gov/static/applications/dcfnewsrelease/1242684350.pdf
Southeast Alaska Net Fisheries Chinook Salmon Management Restrictions Advisory Announcement:
http://www.adfg.alaska.gov/static/applications/dcfnewsrelease/1242554703.pdf

TREE POINT AND PORTLAND CANAL FISHERY

INTRODUCTION

The Tree Point and Portland Canal (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* (5 AAC 33.360). The Nakat Inlet THA management plan will be discussed within the THA fisheries section.

2021 OUTLOOK

Chum Salmon

Summer chum salmon runs were mixed in southern SEAK during the 2020 season and the harvest in the District 1 drift gillnet fishery was below average. The season was characterized by weak hatchery chum salmon runs and highly variable wild runs. Escapements to index streams in the subregion ranged from poor to excellent, and the overall index count of 70,000 chum salmon was just above the lower bound SEG of 62,000 index fish. The estimated escapement of 9,800 summer chum salmon at Fish Creek near Hyder was well below the long-term average of 24,200 fish (1983–2019), but the peak aerial survey estimate of 30,000 fish at nearby Tombstone River was the fifth 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 is 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 country 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 (PSC) 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 PSC meeting in January 2021, the bilateral Northern Panel and the Northern Boundary Technical Committee met and finalized the 2019 Nass River sockeye salmon run reconstruction and calculated a preliminary run reconstruction for 2020. Preliminary reports indicate that the total sockeye salmon run to the Nass River in 2020 was 295,000 fish. That allowed for a District 1 harvest of 13,100 Nass River sockeye salmon for 2020. The 2020 District 1 drift gillnet fishery total sockeye salmon harvest was 9,342 fish and of these, 7,500 were Nass River sockeye salmon. The 1999–2020 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 2021 total run of 437,000 Nass River sockeye salmon. If the forecast is accurate, then the AAH for the District 1 gillnet fishery will be 32,700 Nass River sockeye salmon.

Chum and Coho Salmon Enhancement

Hatchery runs of summer chum, fall chum, and coho salmon to SSRAA enhancement release sites are expected to contribute substantially to the District 1 drift gillnet fishery in 2021. Information concerning SSRAA run forecasts is included under the THA fisheries section of this plan.

Pink Salmon

The SEAK pink salmon forecast for 2021 is for an average run of 28 million pink salmon within a range of 19–42 million fish. Pink salmon harvests for Southern SEAK for the past 5 odd years have averaged 21 million fish. If the actual runs 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 18, 2021) with the following fishing time:

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 2021 District 1 drift gillnet fishery are:

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 20, 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 runs to Alaska and Canada waters, until July 18 when the PSMP becomes effective.

As in recent years, the harvest of hatchery-produced summer chum salmon will not be included in the evaluation of wild stock fishery performance. The contribution of hatchery-produced 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 with 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 18. 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, the department will continue to take a conservative approach to the fall season in District 1. However, fishing periods will be allowed after September 18 if fishery performance data indicates above average runs 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, 2021.

Hugh Smith Lake Sockeye Salmon

The department 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 (nmi) 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.

2021 OUTLOOK

Chinook Salmon

The 2021 preseason forecast for Stikine River is for a terminal run of 9,900 large Chinook salmon which is below the level needed for escapement, and therefore will not allow directed fisheries in U.S. and Canada. This forecast is well below the average of 19,200 fish and below the escapement goal range of 14,000–28,000 fish. The expected Anita Bay run of hatchery-produced Chinook salmon is 11,500 fish, below the average run of 15,600 fish.

Sockeye Salmon

The 2021 preseason forecast for Stikine River sockeye salmon of 56,000 fish is well below average (108,000 fish) and includes 28,000 Tahltan Lake (50%) and 28,000 mainstem (50%) sockeye salmon. If the run is on forecast, there will be sufficient fish to meet escapement needs for Tahltan Lake with a small allowable catch but will only provide for escapement needs on the mainstem. Fishing periods in District 8, and to a lesser extent in District 6, will be determined initially by the preseason forecast, then by inseason abundance estimates of Stikine River sockeye salmon. Sockeye salmon run timing through District 8 typically peaks for the Tahltan Lake stock in SW 27 and for the mainstem stock in SW 29. Sockeye salmon stocks runs 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 in 2021.

Pink Salmon

Pink salmon typically begin entering Districts 6 and 8 near the end of July. With parent-year escapements to both districts within target ranges, Districts 6 and 8 pink salmon runs are expected to be average. Pink salmon harvests typically peak during SWs 31–33 in both districts.

Chum Salmon

Chum salmon are harvested incidentally in Districts 6 and 8 fisheries that are primarily managed for other species of salmon. Hatchery produced chum salmon runs to Anita Bay, Neets Bay, and Burnett Inlet comprise the majority of chum salmon harvests in Districts 6, while harvests in District 8 consists mostly of Anita Bay fish. The Anita Bay hatchery chum salmon run typically peaks during SWs 30–33 in the terminal area.

Coho Salmon

Beginning in SW 36, weekly fishing periods will be determined based on wild coho salmon abundance. The best available measure of wild coho salmon abundance is fishery performance. Wild coho salmon harvest rates have been near average for the past few years and are expected to be average in 2021. However, hatchery coho salmon runs have been well below average in recent years and 2021 runs are expected to be below average. Although the Anita Bay hatchery coho salmon run forecast of 11,100 fish is near average, expected hatchery coho salmon runs of 27,600 fish to Neck Lake and 113,100 fish to Neets Bay are well below average.

MANAGEMENT GOALS

Management goals for the District 6 and District 8 drift gillnet fisheries for the 2021 season are as follows:

1. Achieve Chinook salmon escapement goals.
2. Achieve the Stikine River sockeye salmon escapement goals while harvesting Alaska's 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

2021 forecasts and recent trends in Chinook salmon abundance throughout SEAK indicate very poor survival. Both the Stikine River and Andrew Creek stocks of Chinook salmon are recommended to be listed as stocks of concern. Escapement of Stikine River Chinook salmon has been below goal five of the past five years and escapement of Andrew Creek Chinook salmon has been below goal four of the past five years. Due to the poor outlook, restrictions will be taken in U.S. and Canadian fisheries for Chinook salmon conservation.

If Canada opens a directed sockeye fishery, it will be delayed 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 for stock assessment. Inseason assessment will be based solely on the Kakwan Point tagging project. Restrictions to be taken in the Districts 6 and 8 sockeye fisheries are included below.

Sockeye Salmon

Sockeye salmon fishing in both districts will be managed in accordance with the TBR Annex of the PST. District 6 is managed primarily for local Alaska sockeye salmon stocks and District 8 is managed primarily on Stikine River sockeye salmon abundance as allowed by the sharing provisions of the 2018 TBR Annex. Through the end of 2023, harvest shares are 53% U.S./47% Canada. Based on the forecast in 2021, this results in a U.S. AC of 2,120 Stikine River sockeye salmon and is comprised only of Tahltan Lake fish. Since the forecast of mainstem sockeye salmon is below the midpoint of the escapement goal, there is no AC for mainstem bound sockeye salmon. The bulk of the AC is expected to be distributed between the inriver U.S, subsistence fishery and the District 6 commercial fishery making commercial opportunity in District 8 highly unlikely during what would normally be the sockeye salmon portion of the season in the district.

The sockeye salmon season could open by regulation as early as 12:00 noon on Sunday, June 13 (SW 25). However, with an expected poor run of Stikine River Chinook salmon, as well as poor Chinook salmon runs throughout SEAK, conservation measures will be in place for the start of the sockeye salmon fishery. As stated above, directed commercial opportunity for sockeye salmon in District 8 is unlikely, however, Chinook conservation measures will include implementing a six-inch maximum mesh size and delaying the start of the sockeye salmon fishery by one week in District 6. Because of concerns for Stikine sockeye salmon and the general poor performance of local sockeye salmon stocks, extensions are unlikely during the sockeye portion of the season. District 106 will be limited to two days a week during SWs 29–32 for McDonald Lake sockeye salmon conservation.

Management actions during the sockeye salmon fishing season will be based on District 6 drift gillnet harvest information. Inseason stock abundance indicators, along with fishery performance and stock composition data obtained from U.S. fisheries will be incorporated into the Stikine Sockeye Forecast Model (SSFM). Commercial fishing will be closed in the Canadian portion of the Stikine River, and no Canadian assessment fishery is planned for the 2021 season. Stock composition data will be obtained by department personnel at the Kakwan Point assessment fishery site on the Stikine River as an addition to the Chinook salmon tagging project, and from ongoing genetic stock identification (GSI) sampling from the commercial catch. In 2021, the suitability of using GSI samples as an inseason tool will be examined. As the season progresses, the SSFM may become the primary method to estimate available sockeye salmon for harvest once enough data is available. 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.

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 seven of the past eight years. In 2018, the board designated the McDonald Lake sockeye salmon as a stock of concern and adopted the McDonald Lake Sockeye Salmon Stock Status and Action Plan (Walker et al. 2018). Given this history and expected poor run, the department is recommending McDonald Lake sockeye salmon continue as a stock of concern as defined by the SSFP. Those actions will remain in effect for 2021 and the District 6 drift gillnet fishery will be limited to two days per week during the peak weeks of the McDonald Lake sockeye salmon run in SWs 29, 30, and 31.

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

During the sockeye salmon management period, 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. The expected run 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 salmon stock abundance. Crystal Lake Hatchery, facilities in the Ketchikan area, Anita Bay remote release site, and the 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.

2021 OUTLOOK

Chinook Salmon

The 2021 preseason terminal run forecast of 10,300 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 forecast of 2018, is nearly 9,000 fish below the escapement goal range. DIPAC forecasts runs totaling 2,600 large hatchery Chinook salmon returning to their release sites at Gastineau Channel, Auke Bay, Fish Creek, and Lena Cove.

Sockeye Salmon

The 2021 terminal run of Taku River wild sockeye salmon is forecasted to be 140,000 fish, just below the 2011–2020 average of 144,000 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 was completed in January of 2020 as part of the recent PST renegotiation. In May of 2020, after being elevated to the PSC Commissioners, the Taku Sockeye Working Group recommended S_{MSY} based escapement goal range of 40,000 to 75,000 sockeye salmon with a management objective of 58,000 wild sockeye salmon which TAC and resulting harvest allocations are based, was adopted. The preseason forecast will be used in conjunction with the management objective 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. The Tatsamenie Lake enhanced sockeye salmon run is forecasted to be 6,000 fish in 2021 which would result in a 77% U.S. /23% Canada allocation split.

The Speel Lake escapement goal was revised in 2014 to a SEG of 4,000 to 9,000 sockeye salmon. The 2016 parent-year escapement through the Speel Lake weir was within the revised range, at 5,538 fish, while the 2017 parent-year escapement of 3,435 fish was below the SEG. The 2018 escapement of 4,244 and 2019 escapement of 6,440 sockeye salmon were within SEG range. The Speel Lake weir was not operated in 2020 due to the health emergency surrounding the COVID-19 pandemic, but foot surveys conducted approximately every three days throughout the historical run timing suggested escapement was below the SEG. 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 2021.

The 2021 DIPAC Port Snettisham (Snettisham Hatchery and Sweetheart Lake) run forecast is 106,000 fish, below the 2020 estimated total run of 110,000 fish.

Chum Salmon

In 2021, DIPAC is forecasting hatchery-produced summer chum salmon runs of 350,000 fish to Gastineau Channel and 58,000 fish to Limestone Inlet. The expected contribution to common property fisheries is 216,000 fish. Taku River fall chum salmon runs are expected to be minimal.

Pink Salmon

District 11 pink salmon runs are expected to be below average in 2021. Parent-year pink salmon escapements to District 11 were below management targets in 2019. The total number of pink salmon counted through the Taku River Canyon Island fish wheels in 2019 was 112% of the recent ten odd-year average (2001–2019) indicating above average escapement to the Taku River.

Coho Salmon

The 2021 run of Taku River coho salmon is expected to be average. The terminal run forecast of 94,000 coho salmon is based on a smolt estimate with a five-year average marine survival applied. This compares to an average (2011–2020) terminal run of 97,000 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 exceeds 75,000 fish. DIPAC projects a run of 44,000 hatchery-produced coho salmon from their smolt releases into Gastineau Channel in 2021.

MANAGEMENT GOALS

Management goals for the 2021 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 Port Snettisham enhanced sockeye salmon run 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 to 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.

To avoid conflicts with sport fisheries, the District 11 drift gillnet fishery will not be open concurrent with the 2021 Juneau Golden North Salmon Derby (August 13–15). That week's opening will start on Monday, August 16.

Chinook Salmon

The 2021 preseason Taku River Chinook salmon terminal run forecast is below the escapement goal range and requires a conservative management approach. The forecast does not provide any AC for directed fisheries, no assessment fishery will occur on the Canada side of the border, 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, and restrictive management measures will be taken in early openings of U.S. and Canadian fisheries targeting sockeye salmon. 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 (SW 26) for directed sockeye salmon fishing in Section 11-B with time, area, and mesh size 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. Open area in SW 27 will likely be liberalized with waters in Taku Inlet closed north of Cooper Point and open area in SWs 28 and 29 will have increased area with the north line shifted up to Jaw Point. The maximum mesh size restriction will likely remain in place through SW 28 and night closures will likely remain in place through SW 27. Taku Inlet will likely only open for two days through the SW 28 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 consider AC targets more comprehensively on a weekly basis. 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* (5 AAC 33.378). The plan provides basic guidelines for managing enhanced sockeye salmon production from Port Snettisham including the following provisions in order of priority:

1. Ensure sustainable production of wild sockeye salmon from Crescent and Speel Lakes.
2. Manage Port Snettisham enhanced sockeye salmon run 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 runs.

Management of the fishery in Stephens Passage will focus on conservation of Port Snettisham wild sockeye salmon stocks, particularly in July. The department may implement a six-inch minimum mesh size restriction in Section 11-B south of Circle Point to reduce harvest rates of Port Snettisham wild sockeye salmon while allowing harvest of Limestone Inlet remote release site hatchery-produced chum salmon. The mesh size restriction in Section 11-B will 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 hatchery summer chum salmon fisheries. Fishing time for a directed pink salmon fishery in Section 11-C will depend on the strength of pink salmon runs to lower Stephens Passage, Seymour Canal, and the northern portions of District 10. Runs will be closely monitored, but an opening in Section 11-C is unlikely based on poor parent-year escapements to these areas.

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 Taku River coho salmon escapement goal range of 50,000 to 90,000 fish, with a management objective of 70,000 fish, was adopted by the TBR Panel. Inseason management will be based on evaluation of the fishery harvest, effort, and CPUE relative to historical levels, inriver run size estimates from the Taku River mark–recapture project, and recovery of wild and hatchery coho salmon via CWT analyses

in marine fisheries. The preseason terminal run forecast of Taku River coho salmon provides the U.S. with an AC of approximately 12,000 fish.

LYNN CANAL FISHERY

INTRODUCTION

The Lynn Canal (District 15) drift gillnet fishing area encompasses waters north of the latitude of Little Island Light 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. Section 15-B targets coho salmon in the fall but this area has been closed since 2010.

2021 OUTLOOK

Chinook Salmon

The 2021 Chilkat River Chinook salmon preseason total run forecast is 1,500 large fish. This forecast is slightly lower than the 2020 forecast and below the lower bound of the escapement goal range of 1,750 to 3,500 fish. The forecast is based on the sibling relationships observed in age classes and run data over the previous nine years. There is no directed Chinook salmon fishery in District 15. In 2018, the board approved the Chilkat River and King River king salmon action plan that outlines management guidelines to reduce the harvest of Chilkat River Chinook salmon stocks.

Sockeye Salmon

Chilkat and Chilkoot Lakes wild sockeye salmon runs comprise the majority of sockeye salmon harvest in District 15, with additional contribution from the Chilkat River mainstem stock.

The parent-years sockeye salmon escapements contributing to the 2021 run to Chilkat Lake were 176,000 fish in 2015 and 88,500 fish in 2016. These escapements were within or exceeded the escapement goal range of 70,000–150,000 fish. Five-year old fish (age 1.3 and 2.2) account for an average 60% of the Chilkat Lake sockeye salmon run and escapements from 2016 will be a major component of the 2021 run. Six-year-old fish (age 2.3) account for an average 34% of the run. Returns of age 1.3 and age 2.2 fish from brood year 2015 were below average in 2020, indicating returns of age 2.3 fish in 2021 may also be below average. Zooplankton prey observations during the lake rearing period (2016 and 2017) for brood years 2015 and 2016 indicated below average (2016) and above average (2017) abundances of copepods and cladocerans. The parent-year escapements, brood year 2015 returns to date, and zooplankton abundance suggest an average or below average run of sockeye salmon to Chilkat Lake in 2021.

The Chilkoot Lake escapement estimates during the dominant brood year return of 2016 was 87,000 sockeye salmon, near the upper bound of the SEG range of 38,000 to 86,000 fish. Five-year old fish (age 1.3) account for an average 76% of the Chilkoot Lake sockeye salmon run, therefore, escapements from 2016 will be a major component of the 2021 run. Zooplankton prey observations during the first summer of lake rearing (2017) for the 2016 brood year was 190% above average and the rearing fry population estimate of 500,000 fish was 40% below average. Parent-year escapements, strong zooplankton estimate, and poor presmolt estimates suggest an average to below average run of sockeye salmon to Chilkoot Lake in 2021.

Chum Salmon

DIPAC forecasts a total summer chum salmon run 545,000 to 1.6 million fish to their release sites at Boat Harbor and Amalga Harbor THAs. The common property harvest is expected to be 611,000 chum salmon. The forecast is below recent and long-term averages.

The 2021 fall chum salmon run to the Chilkat River are expected to be average. The parent-year escapement for the 2021 Chilkat River fall chum salmon run was estimated to be 130,000 fish, within the SEG range of 75,000 to 250,000 fish.

Coho Salmon

The Chilkat River followed by the Berners River are the largest contributors of coho salmon to the District 15 drift gillnet harvest. Parent-year escapements for the 2021 coho salmon run to the Chilkat River were 34,000 fish in 2017 and 66,000 fish in 2018; both within the BEG range of 30,000 to 70,000 fish. Parent-year escapements for the 2021 coho salmon run to Berners River were 7,000 and 3,600 fish, within the BEG range of 3,600 to 8,100 fish. Parent-year escapements and ocean conditions for coho salmon growth and survival data from Southeast Alaska Coastal Monitoring (SECM) surveys in 2020 indicate that coho salmon runs to Lynn Canal will likely be average in 2021.

Pink Salmon

The outlook for the 2021 pink salmon runs to the northern SEAK inside waters is uncertain. Parent-year pink salmon escapements in 2019 were very poor throughout northern inside waters and the escapement goal was not met. However, the juvenile pink salmon CPUE from the 2021 SECM surveys in Icy and Chatham Straits ranked 16th out of the 24 years of surveys, and the regionwide harvest forecast is for an average harvest of 28 million fish. If pink salmon runs to northern inside waters are strong enough to achieve escapement management targets and provide for harvestable surpluses, the department will consider opening areas within District 15 to harvest 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 escapements 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 escapement 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 2018b).
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. Provide for the harvest of DIPAC hatchery-produced chum salmon available in the Boat Harbor THA in accordance with the *District 15 Boat Harbor Terminal Harvest Area Management Plan*, while conserving wild stocks until run strengths can be determined.

MANAGEMENT PLAN

The Lynn Canal drift gillnet fishery 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 2018 Chilkat and King Salmon Rivers action plan.

To avoid conflicts with sport fisheries, the Section 15-C drift gillnet fishery will not be open concurrent with the 2021 Juneau Golden North Salmon Derby (August 13–15). That week's opening will start on Monday, August 16.

Chinook Salmon

The Chilkat River Chinook salmon stock was designated as a stock of management concern at the 2018 BOF meeting after multiple years (2012–2014 and 2016–2018) of failing to achieve escapement goals. The 2018 Chilkat and King Salmon Rivers action plan outlines management measures intended to reduce the harvest rate on Chilkat River Chinook salmon and rebuild the run to consistently achieve escapement. In 2018, management of the District 15 commercial drift gillnet fishery followed the action plan; however, in 2019 and 2020, additional time and area restrictions beyond those prescribed in the action plan were implemented in efforts to further reduce harvest. As a result, harvest rates were lowered to 4% percent in 2019 and 2% percent in 2020. Through these efforts, in addition to regionwide Chinook salmon conservation efforts by all gear types, the Chilkat River Chinook salmon BEG was achieved consecutively in 2019 and 2020.

The 2021 preseason forecast for Chilkat River Chinook salmon is projected to be below the minimum inriver escapement goal range. Management strategies in 2021 will again focus on minimizing harvests of Chilkat River Chinook salmon stocks by employing a conservative management approach similar to 2019 and 2020. Because Chinook salmon are incidentally harvested in the directed sockeye salmon fishery, expected management actions for 2021 are described in the sockeye salmon management section.

Sockeye Salmon

The District 15 drift gillnet fishery will open for directed sockeye salmon fishing in Lynn Canal on the third Sunday in June with time, area, mesh restrictions, and night closures as directed by the 2018 Chilkat and King Salmon Rivers action plan. Harvest opportunities will be limited during the first five weeks of the fishery in Section 15-A, and during the first three weeks in Section 15-C due to Chinook salmon conservation measures.

Section 15-A will be limited to two days a week through July 24 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 24.

In Section 15-C, open area will be limited 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) to two days a week through July 10. A maximum mesh size restriction will likely be in effect through July 17. Night closures from 10:00 p.m. through 4:00 p.m. will be in effect districtwide through July 17. This includes outside waters of the Boat Harbor THA. Subsequent openings will be based on traditional Lynn Canal management practices of run strength based on

fishery performance data and Chilkat River fish wheel catches, and Chilkat and Chilkoot Lakes fish weir counts 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. Openings early in the season are typically designed to harvest large hatchery runs of summer chum salmon, while minimizing the harvest of northbound sockeye salmon and other wild stocks until run strength can be determined. Due to Chilkat River Chinook salmon conservation measures, harvest opportunities will again be limited in the outside waters of the Boat Harbor THA during the first three weeks of the fishery. 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, and 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.

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 begin increasing in abundance in Lynn Canal during the beginning of July and are harvested in Sections 15-A and 15-C incidental to sockeye and hatchery summer chum salmon. If the pink salmon runs are strong and provide for harvestable surpluses, and there are no biological concerns for sockeye salmon, the department will consider opening areas within District 15, in particular Lutak Inlet, for directed pink salmon fisheries.

TERMINAL HARVEST AREA FISHERIES

During the 2021 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 in consultation with NSRAA and according to the BOF adopted management plan. Drift gillnet open fishing times and any modifications of the THA will be announced by ADF&G advisory announcement prior to and during the fishing season.

Deep Inlet Terminal Harvest Area

NSRAA expects runs of 1,608,000 chum, 17,600 Chinook, and 95,000 coho salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2021. This season, 130,000 chum salmon are planned to be taken from the Medvejie Hatchery and Deep Inlet THA for broodstock with no anticipated 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 BOF, during its January 2018 meeting, passed regulations requiring the time ratio for gillnet to seine openings at 1:1 for the 2019 and 2020 seasons, which will continue with the 2021 season.

For the first week of June, drift gillnet fishing is scheduled on June 1–2 and purse seine fishing is scheduled on June 3–4, and the troll fishery is scheduled for June 5. For the remainder of the 2021 season (June 6 to September 25) 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 19. 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 2021, drift gillnet fishermen will be required to fish with a minimum mesh size of six inches through June 19. 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 total run size, the Deep Inlet THA fishery will be managed in 2021 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 the department 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 THA fishery has in the past been poor, and the department needs detailed information on coho and sockeye salmon harvest patterns, department personnel 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 CWT.

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 2021 season, the department 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 in consultation with SSRAA in accordance with management plans adopted by the BOF. Open drift gillnet fishing times will be announced by advisory announcement prior to and during the fishing season.

Neets Bay Terminal Harvest Area

In 2021, SSRAA is expecting total runs of 768,000 summer chum, 31,000 fall chum, 113,100 coho, and 6,700 Chinook salmon to Neets Bay.

The Neets Bay THA will open Tuesday, June 15. Beginning at 12:00 noon, Thursday, June 17, through 12:00 noon, Tuesday, July 6, a rotational fishery according to the *District 1: Neets Bay Hatchery Salmon Management Plan* (5 AAC 33.370) 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 2021 until July 1 due to wild stock Chinook concerns.

For 2021, the net rotation fishing schedule will again be modified during SWs 24–27 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 2021 season fishing schedule and area for the Neets Bay THA will be announced in a separate ADF&G advisory announcement. Additional fisheries, if warranted, will be announced by advisory announcement, and opened by emergency order in consultation with SSRAA.

Nakat Inlet Terminal Harvest Area

For 2021, SSRAA forecasted Nakat Inlet total hatchery runs of 321,000 summer chum, 5,000 fall chum, and 16,400 coho salmon. Peak chum salmon harvests from these releases are expected between mid- to late July for summer chum and between late August to mid-September for fall chum and coho salmon.

The Nakat Inlet THA opens by regulation from June 1 to November 10 concurrently to drift gillnet and troll gear. The 500-yard stream closure regulation (5 AAC 39.290) will remain in effect. In 2021, the Nakat Inlet THA will be closed to commercial salmon fishing from 12:01 a.m., Sunday, July 11, through 11:59 p.m., Saturday, July 24, to allow SSRAA to conduct nontraditional cost recovery.

Carroll Inlet Terminal Harvest Area

For the 2021 season, SSRAA has forecasted a total Carroll Inlet Chinook salmon run of 9,300 hatchery fish. In accordance with regulation, Carroll Inlet THA will be open June 1, through June 30, for rotational fisheries to provide harvest for hatchery-produced Chinook salmon. Rotational net fisheries are expected to begin at 12:00 noon, Tuesday, June 15, through 12:00 noon, Wednesday, June 30. The 500-yard stream closure (5 AAC 39.290) will not be in effect in the Carroll Inlet THA. Details of the 2021 season fishing schedule and area for the Carroll Inlet THA will be announced in a separate ADF&G advisory announcement.

Crystal Lake Terminal Harvest Area

SSRAA projected a 3,600 adults Chinook salmon run to Crystal Lake Hatchery in 2021. Of which, 2,100 fish are expected to reach the Wrangell Narrows-Blind Slough (District 6) THA. Under provisions of the *District 6: Wrangell Narrows-Blind Slough Terminal Harvest Area Salmon Management Plan* (5 AAC 33.381) if the projected terminal run is over 4,000 fish, the commercial fishery will be opened to harvest 50% of the projected run over 4,000 fish. Based on the forecast, there is not likely to be surplus available for commercial troll or drift gillnet openings in the THA in 2021.

SSRAA is expecting a 4,100 fish Crystal Lake Hatchery coho salmon run. An estimated 1,600 fish are expected to reach the Wrangell Narrows-Blind Slough terminal area. No commercial drift gillnet fishery is anticipated in the THA in 2021.

Anita Bay Terminal Harvest Area

For 2021, SSRAA is forecasting total runs of 11,500 Chinook, 474,000 summer chum, and 11,100 coho salmon from releases at Anita Bay. A total of 7,100 Chinook, 162,300 summer chum, and 2,800 coho salmon are expected to be available for harvest in the THA. The initial opening of Anita Bay will be delayed until June 1 to mitigate potential harvest of wild Chinook salmon. Additionally, it is anticipated that cost recovery and possibly broodstock collection will likely occur in Anita Bay this year. A rotational fishery will be in place for drift gillnet and purse seine fleets for the 2021 season. Details of the 2021 season fishing schedule and open area within 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

DIPAC is forecasting a summer chum salmon total run of approximately 656,000 summer chum salmon to their release sites at Boat Harbor THA (BHTHA) and Amalga Harbor SHA in 2021. The total common property harvest is expected to be 395,000 hatchery-produced chum salmon.

The BHTHA will open by regulation on the third Sunday of June to provide for the harvest of DIPAC hatchery-produced 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 BHTHA. 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 11. Depending on aerial survey observations of Endicott River wild chum salmon run strength, the BHTHA northern boundary may be reduced to the latitude of Danger Point. Inside waters of the BHTHA (west of 135°09.57′ W long) will open seven days a week without gear or time restrictions.

Speel Arm Special Harvest Area

The 2021 total run forecast for Snettisham Hatchery sockeye salmon is 106,000 fish which is approximately the same as the estimated 2020 total run. 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 in the waters of Speel Arm north of 58°03.42′ N lat. Timing of openings in the SHA will depend on sockeye salmon escapement into Speel Lake and DIPAC's progress toward broodstock goals. 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 advisory announcements 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 run to this site is 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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TABLES AND FIGURES

Table 1.–Southeast Alaska commercial drift gillnet salmon harvest in numbers of fish, by area, harvest type and species, 2020.

Fishery	Chinook	Sockeye	Coho	Pink	Chum	Total
District 1						
Traditional (Tree Point)	1,812	9,348	20,277	186,278	136,083	353,798
Terminal Harvest Areas	4,395	248	632	8,001	74,887	88,163
Annette Island	571	2,342	5,659	148,756	56,676	214,004
District 6						
Traditional (Prince of Wales)	1,182	11,314	43,850	127,583	143,577	327,506
District 7						
Terminal Harvest Area	3,849	29	2,744	183	15,034	21,839
District 8						
Traditional (Stikine)	2,617	2,781	21,069	11,799	53,678	91,944
District 11						
Traditional (Taku/Snettisham)	1,094	28,233	15,863	65,353	109,516	220,059
Terminal Harvest Area	0	0	0	0	0	0
District 13						
Terminal Harvest Area	3,641	157	2,876	18,983	209,899	235,556
District 15						
Traditional (Lynn Canal)	863	46,171	17,342	66,813	174,395	305,584
Terminal Harvest Area	40	4,049	153	16,180	144,858	165,280
Subtotals						
Traditional	7,568	97,847	118,401	457,826	617,249	1,298,891
Terminal Harvest Areas	11,925	4,483	6,405	43,347	444,678	510,838
Common Property Total	19,493	102,330	124,806	501,173	1,061,927	1,809,729
Hatchery Cost Recovery	1,205	0	0	0	0	1,205
Annette Island	571	2,342	5,659	148,756	56,676	214,004
Total	21,269	104,672	130,465	649,929	1,118,603	2,024,938

[a] Chinook salmon harvest includes jacks.

Table 2.–District 1 traditional and terminal harvest areas (Nakat Inlet, Neets Bay, and Carroll Inlet) drift gillnet annual salmon harvest in numbers of fish, 2010–2020.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
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	4,026	64,612	73,576	217,281	757,675	1,117,170
2013	4,483	55,948	111,133	763,434	329,680	1,264,678
2014	4,473	57,192	116,437	763,838	274,351	1,216,291
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	4,310	20,812	44,120	124,356	306,100	499,698
2019	5,054	16,209	37,856	212,631	272,273	554,023
2020	6,207	9,596	20,909	194,279	210,970	441,961
Average 2010-2019	4,041	46,780	66,977	404,200	457,282	979,281

[a] Chinook salmon harvest includes jacks.

Table 3.–Prince of Wales (District 6) traditional drift gillnet annual salmon harvest in numbers of fish, 2010–2020.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
2010	2,516	115,378	227,508	329,700	99,200	774,302
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
2020	1,182	11,314	43,850	127,583	143,577	327,506
Average 2010–2019	2,232	73,719	136,961	334,439	144,863	692,215

[a] Chinook salmon harvest includes jacks.

Table 4.–Stikine River (District 8) traditional drift gillnet annual salmon harvest in numbers of fish, 2010–2020.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
2010	2,359	32,949	42,986	59,832	50,600	188,726
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	13,568	49,027	177,119	257,814
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
2020	2,617	2,781	21,069	11,799	53,678	91,944
Average 2010–2019	6,914	26,648	24,183	43,781	135,008	236,534

[a] Chinook salmon harvest includes jacks.

Table 5.–Taku/Snettisham (District 11) traditional and terminal harvest area drift gillnet annual salmon harvest in numbers of fish, 2010–2020.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
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
2020	1,094	28,233	15,863	65,353	109,516	220,059
Average 2010–2019	1,315	132,559	35,457	149,760	531,569	850,660

[a] Chinook salmon harvest includes jacks.

Table 6.–Lynn Canal (District 15) traditional and terminal harvest area drift gillnet annual salmon harvest in numbers of fish, 2010–2020.

Year	Chinook[a]	Sockeye	Coho	Pink	Chum	Total
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	1,149	122,103	68,009	127,703	1,509,501	1,828,465
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	29,790	191,251	1,575,039	1,837,001
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
2020	903	50,220	17,495	82,993	319,253	470,864
Average 2010–2019	1,178	142,955	42,625	231,982	1,182,250	1,600,989

[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 Run	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	377,745	200,000	177,745	24,528	11,268	*-310,937*
2020[a]	295,194	200,000	95,194	13,137	7,528	*-316,545*
2021[b]	437,000	200,000	237,000	32,706	TBD	TBD

[a] Preliminary Information
[b] Canada 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 2021 salmon runs to SSRAA enhancement projects by release location.

Species/Run	Release Location	Common property Harvest	Terminal	Total Run
Coho	Herring Cove/Whitman	6,600	2,800	9,400
Coho	Nakat Inlet	11,500	4,900	16,400
Coho	Anita Bay	8,300	2,800	11,100
Coho	Neets Bay	79,200	33,900	113,100
Coho	Crystal Lake	2,500	1,600	4,100
Coho	Klawock	116,200	49,800	166,00
Coho	Port Asumcion	5,300	2,300	7,600
Summer Coho	Neck Lake	16,600	11,000	27,600
Summer Coho	Herring Cove/Whitman	2,100	2,100	4,200
Chinook	Whitman Lake	2,500	5,200	7,700
Chinook	Anita Bay	4,400	7,100	11,500
Chinook	Carroll Inlet	3,400	5,900	9,300
Chinook	Neets Bay	900	5,800	6,700
Chinook	Port St. Nick	1,600	3,400	5,000
Chinook	Crystal Lake	1,500	2,100	3,600
Summer Chum	Neets Bay	268,800	499,200	768,000
Summer Chum	Anita Bay	311,700	162,300	474,000
Summer Chum	Burnett	189,900	232,100	422,000
Summer Chum	Kendrick Bay	535,500	178,500	714,000
Summer Chum	Nakat Inlet	160,500	160,500	321,000
Summer Chum	Port Asumcion	173,000	173,000	346,000
Fall Chum	Burnett	10,400	5,600	16,000
Fall Chum	Nakat Inlet	3,300	1,800	5,000
Fall Chum	Neets Bay	9,300	21,700	31,000

Table 10.–Expected 2021 salmon runs to Northern SEAK area enhancement projects by hatchery organization and release location.

Species	Release Location	Common Property Harvest	Cost Recovery	Broodstock	Total Run
		NSRAA			
Chum	Medvejie/Deep Inlet	1,478,000	0	130,000	1,608,000[a]
Chum	Hidden Falls	136,000	0	150,000	286,000
Chum	Crawfish Inlet	1,020,000	900,000	0	1,920,000
Chum	SE Cove	158,000	0	0	158,000
Chum	Thomas Bay	132,000	0	0	132,000
Chinook	Medvejie/Deep Inlet	10,384	3,216	4,000	17,600
Chinook	Hidden Falls	210	0	500	710
Coho	Hidden Falls	17,600	6,400	10,000	34,000
Coho	Deer Lake (Mist Cove)	27,600	31,400	0	59,000
Coho	Deep Inlet/Medvejie	92,000	NA	3,000	95,000
		Armstrong Keta, Inc.			
Pink	Port Armstrong	Unavailable	Unavailable	Unavailable	325,000
Chum	Port Armstrong	Unavailable	Unavailable	Unavailable	225,000
Coho	Port Armstrong	Unavailable	Unavailable	Unavailable	109,000
Chinook	Port Armstrong	Unavailable	Unavailable	Unavailable	150
		Sitka Sound Science Center			
Pink	Crescent Bay	Unavailable	Unavailable	Unavailable	141,000
Chum	Crescent Bay	Unavailable	Unavailable	Unavailable	26,000
Coho	Crescent Bay	Unavailable	Unavailable	Unavailable	8,000
		Gunnuk Creek Hatchery			
Chum	SE Cove	158,000	0	0	158,000
Chum	Kake	77,000	0	Unavailable	77,000
		DIPAC			
Chum	Boat Harbor/Amalga	394,800	260,900		655,700
Chum	Gastineau/Limestone	216,200	1,000	190,000	407,200
Sockeye	Port Snettisham	69,500	29,800	6,800	106,100
Coho	Gastineau Channel	28,600	15,500		44,100
Chinook	Gast/FishCr/Auke/Lena	1,500	800	400	2,700

[a] Projections for Medvejie/Deep Inlet includes chum salmon from the Sitka Sound Science Center.
(Note: Common property harvest estimates of Chinook and coho salmon include sport harvest).

Table 11.–Statistical week calendar for 2021 drift gillnet season.

Week	Beginning Date	Ending Date		Week	Beginning Date	Ending Date
23	May-30	Jun-5		33	Aug-8	Aug-14
24	Jun-6	Jun-12		34	Aug-15	Aug-21
25	Jun-13	Jun-19		35	Aug-22	Aug-28
26	Jun-20	Jun-26		36	Aug-29	Sep-4
27	Jun-27	July-3		37	Sep-5	Sep-11
28	Jul-4	Jul-10	28	38	Sep-12	Sep-18
29	Jul-11	Jul-17	29	39	Sep-19	Sep-25
30	Jul-18	Jul-24	30	40	Sep-26	Oct-2
31	Jul-25	Jul-31	31	41	Oct-3	Oct-9
32	Aug-1	Aug-7	32	42	Oct-10	Oct-16

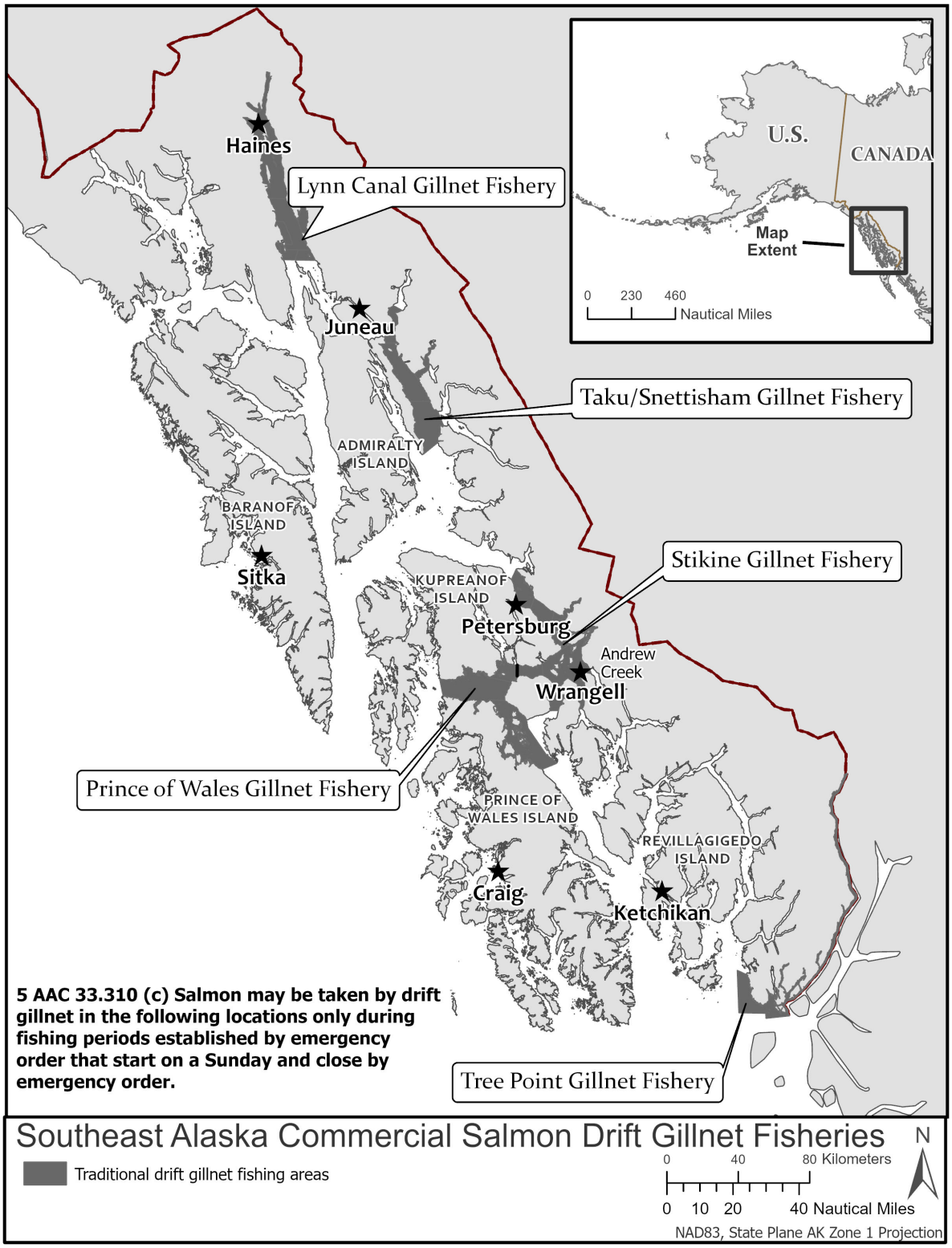

Figure 1.–Traditional drift gillnet fishing areas in Southeast Alaska.