# 2024 Southeast Alaska Salmon Purse Seine Fishery Management Plan

by

**Troy Thynes** 

**Aaron Dupuis** 

**Scott Forbes** 

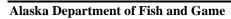
**Bo Meredith** 

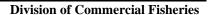
**Andrew Piston** 

and

**Katie Taylor** 

May 2024







### **Symbols and Abbreviations**

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

Weights and measures (metric)		General		Mathematics, statistics	
centimeter	cm	Alaska Administrative		all standard mathematical	
deciliter	dL	Code	AAC	signs, symbols and	
gram	g	all commonly accepted		abbreviations	
hectare	ha	abbreviations	e.g., Mr., Mrs.,	alternate hypothesis	$H_A$
kilogram	kg		AM, PM, etc.	base of natural logarithm	e
kilometer	km	all commonly accepted		catch per unit effort	CPUE
liter	L	professional titles	e.g., Dr., Ph.D.,	coefficient of variation	CV
meter	m		R.N., etc.	common test statistics	$(F, t, \chi^2, etc)$
milliliter	mL	at	@	confidence interval	CI
millimeter	mm	compass directions:		correlation coefficient	
		east	E	(multiple)	R
Weights and measures (English)		north	N	correlation coefficient	
cubic feet per second	ft <sup>3</sup> /s	south	S	(simple)	r
foot	ft	west	W	covariance	cov
gallon	gal	copyright	©	degree (angular)	0
inch	in	corporate suffixes:		degrees of freedom	df
mile	mi	Company	Co.	expected value	E
nautical mile	nmi	Corporation	Corp.	greater than	>
ounce	OZ	Incorporated	Inc.	greater than or equal to	≥
pound	lb	Limited	Ltd.	harvest per unit effort	HPUE
quart	qt	District of Columbia	D.C.	less than	<
yard	yd	et alii (and others)	et al.	less than or equal to	≤
yard	yu	et cetera (and so forth)	etc.	logarithm (natural)	in
Time and temperature		exempli gratia		logarithm (base 10)	log
day	d	(for example)	e.g.	logarithm (specify base)	log <sub>2</sub> etc.
degrees Celsius	°C	Federal Information	0.8.	minute (angular)	1082, etc.
degrees Fahrenheit	°F	Code	FIC	not significant	NS
degrees kelvin	K	id est (that is)	i.e.	null hypothesis	H <sub>O</sub>
hour	h	latitude or longitude	lat or long	percent	%
minute	min	monetary symbols	iat or iong	probability	70 P
second	S	(U.S.)	\$,¢	probability of a type I error	Г
second	3	months (tables and	Ψ, γ	(rejection of the null	
Physics and chemistry		figures): first three		hypothesis when true)	
all atomic symbols		letters	Jan,,Dec	probability of a type II error	α
•	AC	registered trademark	®		
alternating current		trademark	тм	(acceptance of the null	ρ
ampere	A	United States		hypothesis when false)	β
calorie	cal DC	(adjective)	U.S.	second (angular) standard deviation	
direct current		United States of	U.B.		SD
hertz	Hz	America (noun)	USA	standard error	SE
horsepower	hp	U.S.C.	USA United States	variance	<b>1</b> 7
hydrogen ion activity	pН	U.S.C.	Code	population	Var
(negative log of)		U.S. state	use two-letter	sample	var
parts per million	ppm	O.S. state	abbreviations		
parts per thousand	ppt,		(e.g., AK, WA)		
1.	<b>%</b> 0		(		
volts	V				
watts	W				

# REGIONAL INFORMATION REPORT NO.

# 2024 SOUTHEAST ALASKA SALMON PURSE SEINE FISHERY MANAGEMENT PLAN

by

Troy Thynes and Katie Taylor Alaska Department of Fish and Game, Division of Commercial Fisheries, Petersburg

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

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

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

> Alaska Department of Fish and Game Division of Commercial Fisheries, Publications Section 802 3rd, Douglas, Alaska, 99824-0020

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 area management plans, budgetary information, staff comments and opinions to Alaska 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/.

Product names used in this publication are included for completeness and do not constitute product endorsement. The Alaska Department of Fish and Game does not endorse or recommend any specific company or their products.

Troy Thynes and Katie Taylor Alaska Department of Fish and Game, Division of Commercial Fisheries 16 Sing Lee Alley, Petersburg, AK 99833-0667 USA

Aaron Dupuis

Alaska Department of Fish and Game, Division of Commercial Fisheries 304 Lake Street, Room 103, Sitka, AK 99835-7563 USA

Scott Forbes

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

and

Bo Meredith and Andrew Piston Alaska Department of Fish and Game, Division of Commercial Fisheries 2030 Sea Level Drive, Suite 205, Ketchikan, AK 99901-0024 USA

This document should be cited as follows:

Thynes T., A. Dupuis, S. Forbes, B. Meredith, A. Piston, and K. Taylor. 2024. 2024 Southeast Alaska salmon purse seine fishery management plan. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report No., Douglas.

The Alaska Department of Fish and Game (ADF&G) administers all programs and activities free from discrimination based on race, color, national origin, age, sex, religion, marital status, pregnancy, parenthood, or disability. The department administers all programs and activities in compliance with Title VI of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act (ADA) of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972.

#### If you believe you have been discriminated against in any program, activity, or facility please write:

ADF&G ADA Coordinator, P.O. Box 115526, Juneau, AK 99811-5526

U.S. Fish and Wildlife Service, 4401 N. Fairfax Drive, MS 2042, Arlington, VA 22203

Office of Equal Opportunity, U.S. Department of the Interior, 1849 C Street NW MS 5230, Washington DC 20240

The department's ADA Coordinator can be reached via phone at the following numbers:

(VOICE) 907-465-6077, (Statewide Telecommunication Device for the Deaf) 1-800-478-3648, (Juneau TDD) 907-465-3646, or (FAX) 907-465-6078

For information on alternative formats and questions on this publication, please contact:

ADF&G, Division of Sport Fish, Research and Technical Services, 333 Raspberry Rd, Anchorage AK 99518 (907) 267-2375

# TABLE OF CONTENTS

LIST OF TABLES	Page
LIST OF FIGURES	
ABSTRACT	
INTRODUCTION	1
STOCK OF CONCERN	3
2024 PINK SALMON FORECAST	4
GENERAL MANAGEMENT GOALS	6
REGIONAL MANAGEMENT PLAN	7
Expected Fishing Regime	7
Effort Levels	
Daily Start Times	
Regulation Markers	
Terminal Pink Salmon Fisheries	
Chinook Salmon Harvest	
Chinook Salmon Implementation Plan	
Chinook Salmon Nonretention	
Chinook Salmon Reporting	11
Reporting of Personal Use Harvest	11
Test Fisheries.	
Season End	
Use of Aircraft Prohibited	11
District 6 Purse Fishing Areas	12
SOUTHERN SOUTHEAST PURSE SEINE FISHERIES	13
2022 Pink Salmon Run	13
Management Concerns	14
McDonald Lake Sockeye Salmon	14
Management Plan	15
U.S./Canada District 4 Purse Seine Agreement	
Inside Fishing Areas	17
Traditional Fishery Openings	18
Hugh Smith Lake Sockeye Salmon	18
Districts 5, 6, and 7	19
NORTHERN SOUTHEAST PURSE SEINE FISHERIES	20
2022 Pink Salmon Run	20
Management Concerns	
Summer Chum Salmon	20
Management Plan	20
Inside Fishing Areas, Early Runs	
INSIDE FISHING AREAS—MIDDLE AND LATE RUNS	22

HAWK INLET SHORE FISHERY	23
Outside Fishing Areas (Sections 13-A and 13-B)	24
Fall Chum Salmon Fisheries	24
HATCHERY TERMINAL HARVEST AREA FISHERIES	25
Southern Southeast Terminal Harvest Areas	
Neets Bay Terminal Harvest Area Fishery	25
Anita Bay Terminal Harvest Area Fishery	26
Northern Southeast Terminal Harvest Areas Southeast Cove Terminal Harvest Area Fishery	
Amalga Harbor Terminal Harvest Area Fishery	27
Hidden Falls Terminal Harvest Area Fishery	28
Deep Inlet Terminal Harvest Area Fishery	28
Crawfish Inlet Terminal Harvest Area Fishery	29
REFERENCES CITED	31
LIST OF MANAGEMENT CONTACTS	32
LIST OF TABLES	
Table P	Page
Table 1.—Statistical week calendar for 2024 purse seine season.	
Table 2Southeast Alaska pink salmon escapement indices (in millions) by district and subregion, compared to	
management targets and biological escapement goal (BEG) ranges from the 2022 parent year	6
allocation calculations, 1999 to 2024	17
Table 4Expected 2024 runs to SSRAA enhancement projects by release location.	26
Table 5.—Expected 2024 hatchery salmon runs to Northern SEAK by hatchery organization and release location.	30
LIST OF FIGURES	
Figure P	Page
Figure 1.–Map of Southeast Alaska salmon purse seine fishing areas.	2
Figure 2.— Forecast model fit (hindcasts) for total Southeast Alaska (SEAK) pink salmon harvest, 1998–2023 by year (A) and by the fitted values (B) for the model based on CPUE and May satellite sea surface temperature readings in northern Southeast Alaska inside waters. In panel A, the 2024 forecast is shown as a grey circle with the 80% prediction interval as a black vertical line. The observed SEAK pink salmon harvest is represented by the grey bars and the model fit is shown by the black line in panel A. In panel B, the dotted line represents a one-to-one line; circles above the line represent hindcasts that produced a point estimate lower than the actual harvest and circles below the line represent hindcasts that produced a point estimate higher than the actual harvest	5

### **ABSTRACT**

The Southeast Alaska salmon purse seine fishery is managed according to statute, regulations, emergency order authority, and in consultation with the public and industry through the Salmon Purse Seine Task Force process. The Alaska Department of Fish and Game issued a preseason forecast for a harvest of 19.2 million pink salmon for 2024. This forecast for pink salmon, together with historical escapement estimates, fishery performance data, private nonprofit hatchery forecasts for chum salmon and other species, are used to determine the management plan. The management plan for the 2024 Southeast Alaska salmon purse seine fishery is described in detail, along with expected run sizes, harvest strategies, and related management issues.

Key words: Purse seine, management, pink salmon, chum salmon, coho salmon, sockeye salmon, Chinook salmon, Fishery Management Plan

# INTRODUCTION

This plan describes how the Southeast Alaska (SEAK) salmon purse seine fishery will be managed during the 2024 season and includes expected run sizes, harvest strategies, and related management issues. The plan is based on the Alaska Department of Fish and Game (ADF&G or department) 2024 preseason pink salmon forecast, historical escapement data, fishery performance data, private nonprofit hatchery forecasts, and input through the Salmon Purse Seine Task Force process. ADF&G area management biologists listed at the end of this document can provide further details regarding the implementation of the plan in their respective management areas. Average, unless defined otherwise, refers to the most recent 10-year average (2014–2023). Harvest, escapement, and run forecasts and outlooks, unless otherwise indicated, are in numbers of fish. 2024 statistical weeks can be referenced in Table 1.

Table 1.—Statistical week calendar for 2024 purse seine season.

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

Regulations allow purse seine fishing in Districts 1 (Sections 1-C, 1-D, 1-E, and 1-F only), 2, 3, 4, 5, 6 (Sections 6-C, 6-D and 6-E only), 7, 9, 10, 11 (Sections 11-A and 11-D only), 12, 13, and 14 (Figure 1). Although the areas specified above are designated purse seine fishing areas, specific open areas and fishing times are established in season by emergency order. Purse seine fishing is also allowed in hatchery terminal harvest areas (THA) at Carroll Inlet, Neets Bay, Kendrick Bay, Anita Bay, Thomas Bay, Southeast Cove, Hidden Falls, Deep Inlet, Crawfish Inlet, and Amalga Harbor (Figure 1). Purse seine openings in THAs are established by emergency order in consultation with hatchery operators.

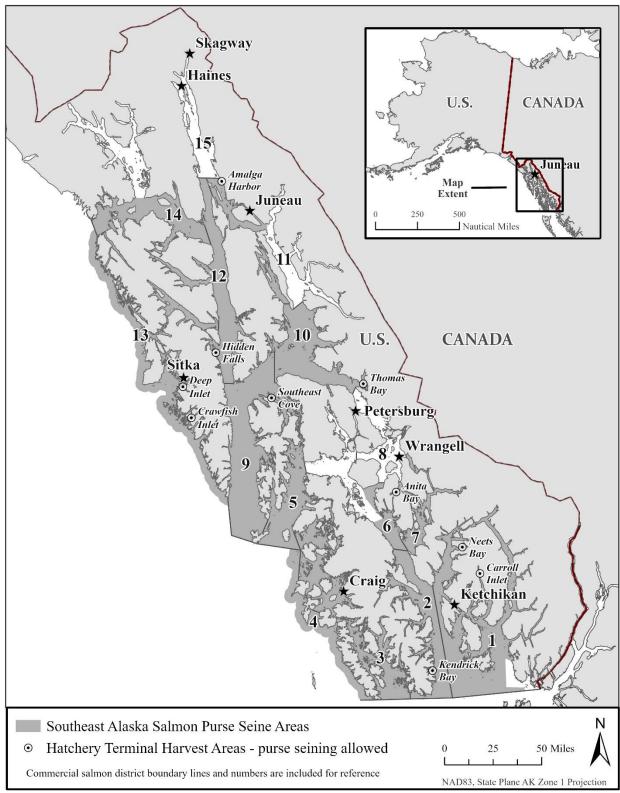


Figure 1.–Map of Southeast Alaska salmon purse seine fishing areas.

Since statehood, 76% of the salmon harvested in SEAK commercial fisheries have been caught with purse seine gear (Conrad and Thynes *In Prep*). Pink salmon (*Oncorhynchus gorbuscha*) is the

primary species targeted by the purse seine fleet; therefore, most management actions are based on the abundance of pink salmon stocks. Whereas openings targeting wild stocks do occur, chum salmon (*O. keta*) are primarily harvested in or near hatchery terminal areas and the majority of chum salmon harvest is from hatchery production. Other species of salmon are harvested incidentally to pink and chum salmon. Over the recent 10-year period, the species composition of the purse seine harvest has included 80% pink, 17% chum, 2% sockeye (*O. nerka*), 1% coho (*O. kisutch*), and less than 1% Chinook salmon (*O. tshawytscha*).

Tagging studies of adult pink salmon have demonstrated that the stocks in SEAK exhibit a distinct separation between the northern and southern portions of the region. For purposes of harvest tabulation and management, Districts 1–8 are grouped as "Southern Southeast" and Districts 9–15 as "Northern Southeast."

Inseason assessments of pink salmon run strength are determined primarily from spawning escapement information obtained from aerial surveys of terminal areas and streams, and from fishery performance data (total harvest and catch per unit of effort, or CPUE). ADF&G staff use fishery performance data and associated information to make inseason evaluations of pink salmon harvests to Northern and Southern SEAK. ADF&G also charters purse seine vessels to conduct test fishing assessments of run strength in selected index areas and monitors pink salmon sex ratios in the commercial harvest to evaluate run timing.

# STOCK OF CONCERN

The *Policy for Management of Sustainable Salmon Fisheries* (SSFP; 5 AAC 39.222) directs ADF&G to provide the Alaska Board of Fisheries (BOF) 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 BOF meetings. In October 2017, the department recommended that the BOF designate the Unuk, King Salmon, and Chilkat Rivers stocks of Chinook salmon, and the McDonald Lake stock of sockeye salmon, as a stocks of management concern and the BOF 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 stocks of management concern and the BOF adopted these recommendations during their October 2020 work session.

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, 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 4-to-5-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 BOF. 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 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 were presented to the BOF and public in draft form at the 2022 Alaska Board of Fisheries Southeast and Yakutat Finfish and Shellfish meeting. The BOF concurred with the department's preferred management actions for each of these stocks but directed the department to apply more restrictive management measures where and/or when appropriate and to relax management measures where and/or when the department determined there was opportunity to do so. Final action plans are published in the ADF&G Regional Informational Report series available at:

http://www.adfg.alaska.gov/index.cfm?adfg=commercialbyareasoutheast.salmon#management. The recommended actions for the purse seine fishery are included in this management plan.

# 2024 PINK SALMON FORECAST

The 2024 SEAK pink salmon harvest is predicted to be in the *average* range with a point estimate of **19.2 million fish** (**80% prediction interval: 12–32 million fish**). The categorical ranges of pink salmon harvest in SEAK were formulated from the 20<sup>th</sup>, 40<sup>th</sup>, 60<sup>th</sup>, and 80<sup>th</sup> percentiles of historical harvest over the 63-year period 1960–2022:

Category	Range (millions)	Percentile
Poor	Less than 11	Less than 20 <sup>th</sup>
Weak	11 to 19	$20^{\text{th}}$ to $40^{\text{th}}$
Average	19 to 32	$40^{th}$ to $60^{th}$
Strong	32 to 48	$60^{\text{th}}$ to $80^{\text{th}}$
Excellent	Greater than 48	Greater than 80 <sup>th</sup>

The National Oceanic and Atmospheric Administration Alaska Fisheries Science Center, Auke Bay Laboratories (NOAA) initiated the Southeast Alaska Coastal Monitoring (SECM) project in 1997 to better understand the effects of climate and nearshore ocean conditions on year class strength of salmon and ecologically related species (Orsi et al. 2000). Since 2018, the SECM project has been conducted cooperatively by NOAA and the ADF&G using the ADF&G research vessel Medeia, and the 2 agencies have combined efforts to produce a joint pink salmon harvest forecast using SECM data (Piston et al. 2019). We plan to continue working toward increased coordination between agencies and will continue to look for ways to focus and expand the SECM survey to provide a wide variety of valuable information to the fishing industry.

The 2024 SEAK pink salmon harvest forecast (Figure 2) was primarily based on juvenile pink salmon abundance indices collected by the SECM project in Northern SEAK Inside waters. These data were obtained from systematic surface trawl surveys conducted annually in June and July in upper Chatham and Icy Straits and are highly correlated with the harvest of adult pink salmon in the following year (Wertheimer et al. 2011). The 2023 juvenile pink salmon abundance index (natural log monthly peak juvenile CPUE; standardized catch based on 20-minute trawl sets) of 1.22 was below average for an odd-year juvenile index but was higher than the past 3 odd-year juvenile indices.

Forecasts were developed using an approach originally described by Wertheimer et al. (2006) and modified by Orsi et al. (2016) and Murphy et al. (2019), but assuming a log-normal error structure (Miller et al. 2022). This approach is based on a multiple regression model with juvenile pink salmon CPUE (a proxy for abundance), along with potential biophysical variables including

temperature data from the SECM survey (Piston et al. 2021) or from satellite sea surface temperature (SST) data (Huang et al. 2017); the parent-year SEAK pink salmon escapement index; juvenile pink salmon condition in June and July; juvenile pink salmon energy density in June and July; average zooplankton in the total water column in May, June, or July; zooplankton density in May, June, or July; and the North Pacific Index (NPI) that were investigated. There were 37 individual models considered for the 2024 forecast. The general model used was:

$$E(y) = \alpha + \beta_1 X_1 + \cdots + \beta_n X_n$$

where E(y) is the expected value for y, the natural log of SEAK pink salmon harvest, β1 is the coefficient for the natural log of CPUE +1, and βn is the coefficient for the biophysical parameter X. A one-step-ahead mean absolute percent error (MAPE) model performance metric for the most recent 10-year period was used to evaluate and compare the forecast accuracy of the models. Based upon the 10-year MAPE, AICc (Akaike Information Criterion corrected for small sample sizes; Burnham and Anderson 2004) values, significant parameters in the models, and the adjusted R-squared values, a model that included CPUE and the satellite SST variable from northern SEAK in May was the best performing model. Using this model, the 2024 forecast would be in the average range with a point estimate of 19.2 million fish (80% prediction interval: 11.7 to 31.6 million fish).

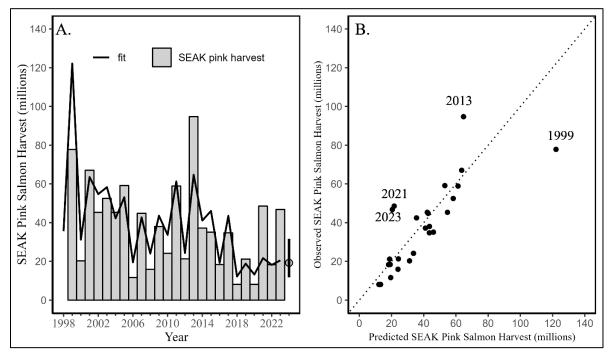


Figure 2.—Forecast model fit (hindcasts) for total Southeast Alaska (SEAK) pink salmon harvest, 1998—2023 by year (A) and by the fitted values (B) for the model based on CPUE and May satellite sea surface temperature readings in northern Southeast Alaska inside waters. In panel A, the 2024 forecast is shown as a grey circle with the 80% prediction interval as a black vertical line. The observed SEAK pink salmon harvest is represented by the grey bars and the model fit is shown by the black line in panel A. In panel B, the dotted line represents a one-to-one line; circles above the line represent hindcasts that produced a point estimate lower than the actual harvest and circles below the line represent hindcasts that produced a point estimate higher than the actual harvest.

The 2024 harvest forecast of 19.2 million pink salmon is just below the recent 10-year average even-year harvest of 21 million pink salmon. A harvest of 19.2 million pink salmon would be near the parent-year harvest in 2022 (18.3 million) and would be higher than the last 4 even-year

harvests (mean = 13.2 million). The 2023 peak June–July juvenile pink salmon index value (1.22) ranked 22nd out of the 27 years that SECM information has been collected. Pink salmon harvests associated with juvenile indices below 2.0 have ranged from 8 to 48 million fish (mean = 20 million fish).

Table 2.-Southeast Alaska pink salmon escapement indices (in millions) by district and subregion, compared to management targets and biological escapement goal (BEG) ranges from the 2022 parent year.

			Lower	Upper
Subregion	District	2022 Index	Management Target	Management Target
Southern	101	2.36	1.02	2.71
Southern	102	0.54	0.29	0.77
Southern	103	1.58	0.95	2.54
Southern	105	0.40	0.25	0.66
Southern	106	0.39	0.21	0.57
Southern	107	0.48	0.26	0.69
Southern	108	0.03	0.02	0.06
Northern Inside	109	0.83	0.65	1.56
Northern Inside	110	0.69	0.59	1.41
Northern Inside	111	0.20	0.25	0.60
Northern Inside	112	0.83	0.52	1.24
Northern Inside	Inside 113	0.39	0.32	0.78
Northern Inside	114	0.21	0.14	0.34
Northern Inside	115	0.00	0.03	0.07
Northern Outside	Outside 113	1.09	0.75	2.50
BEGs		Total	Lower	Upper
by Subregion		2022 Index	Escapement Goal	Escapement Goal
Southern		5.80	3.00	8.00
Northern Inside		3.15	2.50	6.00
Northern Outside		1.09	0.75	2.50

The department will manage the 2024 commercial purse seine fisheries in season based on the strength of salmon runs. Aerial escapement surveys and fishery performance data will continue, as always, to be essential in making inseason management decisions.

# GENERAL MANAGEMENT GOALS

The following are primary management goals for the 2024 SEAK purse seine fishery:

- 1. Achieve pink salmon BEGs by subregion and within subregions and obtain escapements consistent with district and stock group management targets to ensure that escapements are well distributed.
- 2. Achieve adequate chum salmon escapements and ensure escapements are well distributed.
- 3. Provide for an orderly fishery while harvesting fish in excess of spawning escapement needs.
- 4. Minimize, to the extent possible, the harvest of salmon destined for fishing districts where weak runs are expected.
- 5. Promote a harvest of good quality fish within constraints dictated by run size and timing.
- 6. Manage the District 4 purse seine fishery consistent with the provisions of the Pacific Salmon Treaty (PST).

- 7. Minimize harvest of Chinook salmon using conservation actions adopted by the BOF in 2022 including nonretention of Chinook salmon 28 inches or larger during portions of the 2024 purse seine season.
- 8. Manage the purse seine fishery in the waters of District 12 and in Section 14-C north of the latitude of Porpoise Islands, consistent with the *Northern Southeast seine salmon fishery management plans* (5 AAC 33.366).

# REGIONAL MANAGEMENT PLAN

### **EXPECTED FISHING REGIME**

The 2024 forecast indicates an average pink salmon run throughout SEAK and a conservative fishing regime is expected. Areas around the region will open as described in this plan and are subject to inseason adjustments. The Hidden Falls THA will open for common property harvest to target hatchery-produced chum salmon in late June. The first pink salmon openings will begin in late June in District 12 and early July in Districts 1, 2, 4, and 7. Subsequent openings will be based on aerial observations and fishery performance data. The department will carefully monitor inseason information and will manage the fishery to ensure escapement goals are met, obtain district and stock group escapement targets, and distribute escapements throughout the run while providing maximum fishing opportunity. The department is prepared to provide additional fishing opportunity as run strength and fleet distribution allows by expanding fishing opportunity from one to two 15-hour periods per week, to 39-hour periods, to 2-day on/2-day off, or a more continuous fishing schedule. The department may have to reduce fishing opportunity after initially expanding opportunity depending on how runs develop and fleet distribution. Specific areas may warrant more, or less fishing time than the regional schedule depending on run strength and effort in those areas.

### **EFFORT LEVELS**

The size of the purse seine fleet will have some impact on management decisions as the season progresses. Purse seine effort in 2023 was 210 permits fished, 2022 was 194 permits fished, in 2021, 208 permits were fished, and in 2020, 200 permits fished. Effort levels are generally higher in odd years and lower in even years reflecting the current odd-year cycle of stronger pink salmon runs; effort in 2024 is anticipated to be similar to 2022. Since 2007, the number of total permits has decreased from 415 to 279 due to permit buyback programs. The average effort in the purse seine fishery is 242 permits fished.

### **DAILY START TIMES**

For the 2024 season, the fishery opening and closing times will be:

- 1. 5:00 a.m. to 8:00 p.m. from the start of the purse seine season (June 16) through approximately August 15;
- 2. 6:00 a.m. to 9:00 p.m. from approximately August 16 through the end of the pink salmon season; and
- 3. 7:00 a.m. to 7:00 p.m. from the start of the fall chum salmon season until the season closes.

#### **REGULATION MARKERS**

Closed waters, stream markers defining closures around salmon streams, and salmon streams (that may not have markers) have been a topic at Salmon Purse Seine Task Force meetings over the

years. Regulation 5 AAC 33.350 lists all closed waters in SEAK. Regulation 5 AAC 39.290 was amended at the 2013 statewide BOF meeting:

- (a) Except as otherwise provided in this title, commercial fishing for salmon is prohibited at all times in the waters of Alaska that are
  - (1) within the streams and rivers of this state;
  - (2) within 500 yards of the fresh waters of any salmon stream; or
  - (3) over the beds or channels of streams and rivers of this state during all stages of the tide.

# Also adopted in this regulation:

(e) The points established for stream mouths listed in the *Catalog of Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes* under 5 AAC 95.011 do not apply to enforcement of this section or other regulations limiting the distance that commercial fishing may occur from the fresh waters of any salmon stream.

Subsection (e) of the regulation above was added to clarify that fishing is prohibited within 500 yards of the fresh water of salmon streams and not 500 yards from the midpoint of the river mouth as listed in the *Anadromous Waters Catalog*.

The *Anadromous Waters Catalog* has maps identifying the locations of salmon streams and is available online on the department's web site at: <a href="http://www.adfg.alaska.gov/sf/SARR/AWC/">http://www.adfg.alaska.gov/sf/SARR/AWC/</a> and copies are available for review at ADF&G area offices.

Useful definitions of terms in the regulation are found in 5 AAC 39.975. *Definitions (a)*:

- (10) "salmon stream" means a stream used by salmon, at any stage of life, for spawning, rearing, presence, or migration;
- (26) "fresh water of streams and rivers" means fresh water separated from salt water at the mouth of streams and rivers by a line drawn between the seaward extremities of the exposed tideland banks at the present stage of the tide

Under the authority of 5 AAC 39.290(b) the department may post closed areas by appropriate markers. If posted, the department shall place appropriate markers for any stream as close as practically possible to the distance or location specified by the applicable regulation or EO. Often these markers will be more than 500 yards from the mouth of the stream at mean lower low water (MLLW) in order to provide additional protection to fish accumulated near streams or because markers are placed where they can be seen and where they can be attached to a tree. Each stream has a different shoreline configuration. Some streams are in bays and the 500-yard markers can be connected by a straight line between the 2 markers because the location where the stream channel ends at MLLW is 500 yards or more from the straight line between the 2 markers. Other streams are located along straight shorelines and 500 yards from the stream channel at MLLW is defined by an "arc" or half of a circle originating from the 2 regulation markers with the arc being at least 500 yards from any part of the stream channel at MLLW. The most important thing to remember is the shoreline and the stream channel at low tide around every stream is different. Fishermen must always fish outside the markers, despite their distance from the stream, and must always fish 500 yards from where the stream channel ends at low tide, and they should fish outside of the arc defined by the 2 stream markers. This will ensure that they are outside of the 500-yard stream closure.

### **ADVISORY ANNOUNCEMENT INFORMATION**

ADF&G will announce each fishery opening by advisory announcement. Announcements will generally be made more than one full day in advance of the opening to provide a fair start unless an announcement with shorter notice is needed to prevent the loss of opportunity and potentially overescape a system. In the uncommon situation where the department has announced a fishery inside normal markers and additional line changes are needed during an opening, the department may make those additional changes with less than 24-hour notice and will notify fishermen and processors in the vicinity by field announcement. Line changes and time changes differing from prior announcements will be indicated in **bold type** to highlight those changes. Advisory announcements will be available at ADF&G offices throughout SEAK, posted on the ADF&G web site, and may be available at fish buying locations or other prominent locations throughout the region. Advisory announcements can automatically be sent to any email address by subscribing for this service at this site: <a href="http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main">http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main</a>.

ADF&G area office contact numbers will be listed in the footer at the end of each advisory announcement. The department has discontinued the telephone message recording system for purse seine advisory announcements because of the difficulty in providing lengthy and detailed information on a telephone message recording, typical of purse seine advisory announcements. Advisory announcements are organized in numerical order by district, then within a district from the shortest duration opening to the longest duration opening, followed by the current Chinook salmon landing restrictions, information and comments, and a harvest report from the previous fishing period.

### TERMINAL PINK SALMON FISHERIES

ADF&G will strive to open fisheries so that fish of the best possible quality can be harvested in existing traditional fisheries. If substantial buildups of pink salmon occur inside normal closed waters in excess of spawning needs, openings to target these fish may occur, most likely in late August and early September. Openings of this nature will be announced via standard advisory announcements.

Terminal fisheries may open inside normal markers or stream markers at various locations throughout the region. These areas may open to harvest buildups of pink salmon in excess of escapement needs. These fisheries are conducted at the discretion of the area management biologists in consideration of providing an orderly harvest that does not compromise escapement needs and budgetary constraints.

### CHINOOK SALMON HARVEST

ADF&G is required to manage the SEAK purse seine fishery for a maximum harvest of 4.3% of the annual all-gear Chinook salmon harvest ceiling determined under the terms of the PST (5 AAC 29.060 [b][1]). For 2024, the all-gear PST Chinook salmon allocation is 207,150 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 CPUE metric from the SEAK early winter power troll fishery. The 2024 purse seine Treaty Chinook salmon allocation is 8,700 fish. The need for management measures to comply with the purse seine allocation will depend on inseason evaluation of Chinook salmon harvest.

The BOF has adopted size limits for Chinook salmon (5 AAC 33.392) and directed ADF&G to manage the purse seine fishery such that incidental mortality from catch-and-release is minimized. The following are specific provisions for management of the purse seine fishery harvest of Chinook salmon:

- 1. Chinook salmon taken in the purse seine fishery that are less than 28 inches in length (as measured from the tip of the snout to the tip of the tail) will not be counted against the Chinook salmon harvest quota.
- 2. Chinook salmon less than 28 inches in length may be harvested by purse seine fishermen but not sold. All retained Chinook salmon must be reported on fish tickets as personal use (harvest code 95).

### CHINOOK SALMON IMPLEMENTATION PLAN

SEAK Chinook salmon stocks are currently experiencing a cycle of very low abundance. In 2023, 5 of the 11 Chinook salmon stocks with escapement goals in SEAK, did not meet their respective goals and total run sizes were poor for all stocks. Chinook salmon runs are again expected to be poor in 2024 with 2 (Chilkat and Unuk Rivers) of the 4 Chinook salmon stocks for which the department developed formal forecasts having projected runs that meet or exceed the lower end of their escapement goal ranges only if no to little harvest occurs on those stocks. Management actions in accordance with PST, regulations, and BOF recommended actions will again be implemented to reduce harvest of wild Chinook salmon across SEAK salmon fisheries, including sport, commercial, personal use, and subsistence.

The BOF approved action plans for 3 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 11, and District 15 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. At the 2020 BOF October work session, the BOF adopted the department recommendation to continue the "stock of management concern" designation for these 3 stocks and added the Chickamin, Stikine, and Taku Rivers, and Andrew Creek stocks of Chinook salmon as stocks of management concern. At the March 2022 Southeast Alaska and Yakutat Finfish and Shellfish meeting, the BOF reviewed and approved 3 separate draft action plans that addressed recommended fishery restrictions in the northern, central, and southern portions of the region. Basic management restrictions for all Southeast commercial fisheries are included in an advisory announcement released April 27, 2022, located at:

http://www.adfg.alaska.gov/static/applications/dcfnewsrelease/1370086508.pdf

# **CHINOOK SALMON NONRETENTION**

Management actions taken in the purse seine fishery to conserve SEAK Chinook salmon and stay within the harvest limits outlined in the PST will be highly restrictive in 2024. Nonretention of Chinook salmon 28 inches or larger will be in place through at least July 22 for the 2024 purse seine season. Chinook salmon retention after July 22 will be dependent on areas open to directed pink salmon fisheries and the magnitude of pink salmon harvests. Chinook salmon harvests will be monitored closely, and the purse seine fishery will return to nonretention in advance of exceeding the purse seine allocation of the annual PST harvest ceiling. Beginning in 2021, Chinook salmon retention was allowed in outside and northern districts of SEAK, while

nonretention remained in effect in the inside waters of southern SEAK. This approach was taken to further conserve returning Unuk and Chickamin Rivers Chinook salmon and may be implemented again in 2024.

There may be specific terminal areas in which all Chinook salmon may be, or must be, retained. ADF&G intends to implement full retention (5 AAC 39.265) from the beginning of the season for net fisheries in the Deep Inlet THA. Specific retention and nonretention periods will be announced in each purse seine fishery advisory announcement. Additional areas may also be announced via advisory announcement.

# **Chinook Salmon Reporting**

Chinook salmon less than 28 inches in length may be harvested by purse seine fishermen but not sold. All retained Chinook salmon must be reported on fish tickets as personal use (harvest code 95).

When under nonretention of Chinook salmon 28 inches or larger, purse seine fishermen are encouraged to quickly release Chinook salmon in a manner that minimizes mortality. If, during nonretention, Chinook salmon greater than 28 inches are retained, the fisherman is in violation and may be issued a citation. Retained Chinook salmon will be donated, and the fisherman may be subject to the cost associated with processing the fish for donation. On the fish ticket, the number and weight of the fish must be recorded and the disposition code "86-Donated" must be used.

### REPORTING OF PERSONAL USE HARVEST

Fishermen and processors should be aware that all salmon, including steelhead, commercially harvested but retained for personal use and not sold must be reported on fish tickets (harvest code 95) at the time of delivery.

#### **TEST FISHERIES**

Test fisheries to assess run strength and timing of pink and chum salmon and to generate revenue for fisheries management will continue in 2024. The Point Gardner test fishery begins in late June and runs through the end of July. The Kingsmill Point test fishery begins the first week of July and runs through the end of July. These test fisheries are useful in determining run strength and timing of pink and chum salmon returning to Section 9-B and District 10. The Hawk Inlet test fishery begins the last week of June and runs through mid-July and is useful in determining the run strength and timing of pink salmon entering Districts 11 and 15.

#### SEASON END

The end of the season will be announced following review of catch and escapement data from the openings in late August or early September. If there are areas needing additional escapement adjacent to areas with adequate escapement, the department may consider closure lines, if appropriate, to provide harvest opportunities on fish returning to areas where escapements have been met. The implementation of this plan is based on several factors including providing good overall distribution of escapements, higher concentrations of females at the end of the run, incomplete escapement information at the end of the season, and consideration for harvest of other species.

#### USE OF AIRCRAFT PROHIBITED

5 AAC 33.398 prohibits the use of aircraft to locate salmon for the commercial taking of salmon or to direct commercial salmon fishing operations during an open commercial salmon fishing

period in SEAK. Additionally, during an open commercial purse seine fishing period for an area other than a THA, no person may use an aircraft to locate salmon for the commercial taking of those fish or to direct commercial fishing operations one hour before, during, and one hour after the open commercial purse seine fishing period.

# **DISTRICT 6 PURSE FISHING AREAS**

At the 2022 Southeast Alaska and Yakutat Finfish and Shellfish BOF meeting, changes were made to the District 6 section definitions (5 AAC 33.200[f]) and the BOF readopted the 5 AAC 33.359 *Section 6-D Pink Salmon Management Plan*. There was no change to the overall purse seine fishing area. Section 6-D was amended to only include the area along the Etolin Island shoreline from Point Harrington to Point Stanhope, commonly referred to as the "Screen Islands" portion of District 6. The remainder of the former Section 6-D, Stikine Strait and south of a line drawn between Point Stanhope and Luck Point to the southern district boundary, was designated as a new section, Section 6-E. It should be noted that the areas described for Section 6-E are not contiguous. Figure 3 below gives general reference for District 6 sections: detailed descriptions can be found in 5 AAC 33.200(f). For net gear: Section 6-A in Sumner Strait (not depicted in Figure 3) and Section 6-B are drift gillnet only areas; Section 6-E is a purse seine only area; and Section 6-C is a purse seine and drift gillnet area. Section 6-D is also a purse seine and drift gillnet area but drift gillnet fishing time in Section 6-D is limited after the first Saturday in August and before the first Sunday in September subject to 5 AAC 33.359 *Section 6-D Pink Salmon Management Plan*.

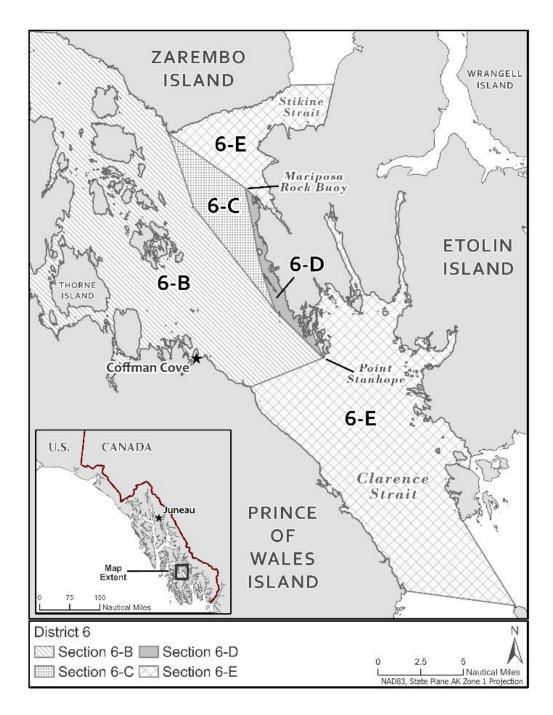


Figure 3.-District 6 sections.

# SOUTHERN SOUTHEAST PURSE SEINE FISHERIES

# 2022 PINK SALMON RUN

The Southern SEAK Subregion includes the area from Sumner Strait south to Dixon Entrance (Districts 1–8). The escapement index value of 5.8 million in 2022 was within the escapement goal range of 3.0 to 8.0 million index fish (Table 2). Escapement indices were within management targets for all 7 districts and within or above management targets for all 18 pink salmon stock groups within this subregion.

#### MANAGEMENT CONCERNS

Uncertainties about fleet size, distribution, and the department's reaction to those can only be addressed in season. ADF&G and the fishing industry will have to be flexible and react quickly to changes from historical fishing patterns. Meeting escapement goals will continue to be the primary objective of the department. Within that conservation mandate, the department will attempt to work with industry to provide a stable supply of fresh fish. Given the dynamic changes to the salmon industry in Southeast Alaska during the 2023 season and leading into the 2024 season, a preseason Purse Seine Task Force meeting between the department and industry was held May 8 to address resultant concerns including; poor market conditions, reduced tender service, expected effort, and fishing schedules. Although these concerns were largely alleviated during the meeting, there is still some uncertainty in how some of these may affect overall fishing power for the upcoming season.

# McDonald Lake Sockeye Salmon

McDonald Lake sockeye salmon was designated a stock of management concern by the BOF in February 2009, due to a long-term decline in escapements. In February 2012, this stock of concern status was removed due to improved adult escapements and rearing fall fry estimates. The stock was again designated as a stock of concern by the BOF in January of 2018. From 2012 to 2021, escapements were below the SEG of 55,000–120,000 fish in 8 of 10 years and included the lowest escapements ever recorded at McDonald Lake in 2020 (8,200) and 2018 (11,000). A draft action plan with several management options each for commercial, sport, and personal use fisheries was presented to the BOF in January of 2018. The BOF considered the various options and adopted the management actions that were outlined in the 2009 action plan. The department will implement the BOF recommended actions to the Southern SEAK purse seine and drift gillnet fisheries in an effort to meet the McDonald Lake sockeye salmon escapement goal. In the October 2020 BOF work session, the BOF adopted the department's recommendation for the McDonald Lake stock of sockeye salmon to continue as a stock of concern.

Management actions that will be instituted in commercial net fisheries consist of the following:

- District 1 purse seine—from statistical weeks (SW) 29 through 31, the purse seine fishery on the western shore of Gravina Island will be closed north of the latitude of Cone Point.
- District 2 purse seine—from SWs 29 through 32, the purse seine fishery on the western shore of the Cleveland Peninsula (within 3.0 nautical miles [nmi] of the shoreline) will be closed.
- District 5 purse seine—from SWs 29 through 31, the District 5 purse seine fishery along the northwest corner of Prince of Wales Island between Point Baker and the Barrier Islands will remain closed.
- District 6 purse seine—from SWs 29 through 31, the District 6 purse seine fishery along the west side of Etolin Island between Point Stanhope and the latitude of Round Point will remain closed. From SWs 29–31, the District 6 purse seine fishery along the east side of Prince of Wales Island between Luck Point and Narrow Point will remain closed.
- District 6 drift gillnet—from SWs 29 through 31, the District 6 drift gillnet fishery will open for a maximum of 2 days.
- District 7 purse seine—from SWs 29 through 31, the District 7 purse seine fishery in Section 7-B will remain closed. If pink salmon runs are extremely strong, the northern portion of Section 7-B, north of Union Point may be open during SW 31. If this occurs,

restrictions may occur in that area south of Union Point into SW 32 to reduce the overall interception of sockeye salmon.

ADF&G will continue to estimate the sockeye salmon escapement at McDonald Lake through surveys of the spawning grounds from early to late September.

The *McDonald Lake Sockeye Salmon Stock Status and Action Plan*, 2018 can be found at this link: http://www.adfg.alaska.gov/FedAidPDFs/RIR.1J.2018.03.pdf

#### MANAGEMENT PLAN

The Southern SEAK purse seine management plan consists of separate segments which include the District 4 fishery, the inside districts pink salmon fisheries, the fall chum salmon fishery in Cholmondeley Sound, and the THA fisheries.

# U.S./Canada District 4 Purse Seine Agreement

In the spring of 2018, the United States and Canada renegotiated a 10-year annex, 2019–2028, for the District 4 purse seine fishery. There were minor changes to the language in the District 4 purse seine portion of the PST which will have little to no effect on the management strategy within the district and are outlined below. The management goals remain the same and the agreement calls for managing the Alaska District 4 purse seine fishery before SW 31 to

- 1. achieve an annual harvest share of the Nass and Skeena Rivers sockeye salmon of 2.45% of the Annual Allowable Harvest (AAH) of the Nass and Skeena Rivers sockeye salmon stocks in that year; and
- 2. carry forward from year-to-year annual deviations from the harvest share arrangement.

The Treaty specifies management actions in the District 1 drift gillnet and District 4 purse seine fisheries prior to SW 31 and Canadian fisheries based on total run size estimates of sockeye salmon to the Nass and Skeena Rivers as follows:

#### 1. Skeena River

- a. When the expected total run is below 900,000 sockeye salmon, there are no Canadian commercial marine harvests and the U.S. shall undertake measures to reduce the impact of the District 4 purse seine fishery, which may include delaying the start date and duration of the fishery.
- b. When the expected total run is below 600,000 sockeye salmon, there are no Canadian marine or inriver commercial harvests except for terminal fisheries adjacent to enhancement spawning channels and the U.S. shall undertake additional measures to reduce the impact of the District 4 purse seine fishery, which may include delaying the start date and duration of the fishery, and/or reducing the fishing area.

# 2. Nass River

- a. When the expected total run is below 200,000 sockeye salmon, there are no Canadian commercial marine harvests and the U.S. shall undertake measures to reduce the impact of District 1 drift gillnet and District 4 purse seine fisheries, which may include delaying the start date and duration of these fisheries.
- b. When the expected total run is below 180,000 sockeye salmon, there are no Canadian marine or inriver commercial harvests and the U.S. shall undertake measures to reduce the impact of District 1 drift gillnet and District 4 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.

The AAH each year will be calculated as the combined total run of Nass and Skeena Rivers adult sockeye salmon in that year less the combined Nass and Skeena escapement target of 1.1 million fish. In the event the actual Nass and Skeena Rivers spawning escapement for the season is below the target level, the actual spawning escapement will be used in the AAH calculation.

The total run calculation includes the harvests of Nass and Skeena Rivers sockeye salmon in the principal boundary area fisheries and the spawning escapements to the Nass and Skeena watersheds. This primarily includes the harvest of Nass and Skeena sockeye salmon in Alaska Districts 1, 2, 3, 4, 6, and 8 net fisheries, Canadian Areas 1, 3, 4, and 5 net fisheries, and Canadian Nass and Skeena inriver fisheries. Harvests in other boundary area fisheries may be included as jointly agreed by the Northern Boundary Technical Committee (NBTC).

Although the management intent shall be to harvest salmon at the AAH, it is recognized that overages and underages will occur, and an accounting mechanism is required. The management intent for each fishery shall be to return any overages to a neutral or negative balance as soon as possible. The accrual of underages is not intended to allow either Alaska or Canada to modify its fishing behavior in any given year to harvest the accrued underage.

During past years, the bilateral NBTC has worked to finalize the total run reconstructions for the Nass and Skeena Rivers. In January 2024, the NBTC presented the preliminary run reconstruction for 2023 to the bilateral Northern Panel and finalized the 2021 and 2022 run reconstructions. Information in Table 3 reflects the performance of the District 4 purse seine fishery from 1999 through 2022, preliminary numbers for the 2023 season, and the 2024 preseason forecast.

Fisheries and Oceans Canada (DFO) has a preseason expectation of approximately 2,010,500 sockeye salmon to the Nass and Skeena Rivers in 2024. This is a combined forecast of 1,541,500 Skeena River sockeye salmon and 469,000 Nass River sockeye salmon. If the 2024 forecast is accurate, and the combined escapement is 1.1 million sockeye salmon, then the AAH for District 4 will be approximately 22,300 Nass and Skeena Rivers sockeye salmon (Table 3). District 4 time and/or area restrictions during the Treaty period may be necessary to achieve Treaty obligations. In 2024, the District 4 purse seine fishery may open, by regulation, on Sunday, July 7. District 4 will be managed under the PST annex through July 27, 2024 (SWs 28-30). The inseason forecast will be analyzed prior to the July 7 opening and if run size warrants an opening, the district will open on July 7. The initial opening on July 7 will be for an as yet to be determined length and will be based on the best available data at the time of the announcement. The duration of following openings will be based on sockeye salmon escapement estimates through the Tyee test fishery at the mouth of the Skeena River, harvest and CPUE, anticipated effort levels, and pink salmon run strength. The amount of effort and harvest of sockeye in the district will be monitored to stay within PST sockeye salmon allocations. As part of the new 2019 Chapter 2 agreement, ADF&G and DFO have set up an information exchange protocol that is intended to enhance inseason communication between management agencies. This will allow the department to closely follow the runs to the Skeena and Nass Rivers so inseason adjustments can be made. Formal fishery summaries will also be exchanged on a weekly basis. In addition, the Tyee test fishery, at the mouth of the Skeena River, can be tracked daily from a web-based database. This protocol has

worked in recent years and allowed managers to provide additional fishing opportunities or reduce time in order to stay within Treaty obligations.

Table 3.–Sockeye salmon allocations for the District 4 purse seine fishery based on Nass and Skeena Rivers allocation calculations, 1999 to 2024

					Total Pre-			
			Nass/	Allowable	SW 31	Actual	Annual	Cumulative
	Nass/Skeena	Nass/Skeena	Skeena	D4 Harvest	Sockeye	Nass/Skeena	Overage/	Overage/
Year	Total Return	Escapement	AAH	(2.45%)	Harvest	Harvest	Underage	Underage
1999	1,771,048	936,705	834,343	20,441	7,664	3,232	-17,209	-17,209
2000	5,318,228	1,100,000	4,218,228	103,347	48,969	29,221	-74,126	-91,335
2001	4,965,291	1,100,000	3,865,291	94,700	203,090	167,854	73,154	-18,180
2002	2,776,502	1,051,333	1,725,169	42,267	26,554	18,627	-23,640	-41,820
2003	3,306,526	1,100,000	2,206,526	54,060	84,742	44,258	-9,802	-51,622
2004	2,620,994	1,100,000	1,520,994	37,265	30,758	19,233	-18,032	-69,653
2005	1,770,474	1,000,144	770,330	18,873	35,690	19,442	569	-69,084
2006	3,650,525	1,100,000	2,550,525	62,488	89,615	68,940	6,452	-62,632
2007	2,752,074	1,100,000	1,652,074	40,476	112,135	75,615	35,139	-27,493
2008	2,531,701	1,100,000	1,431,701	35,077	6,262	4,880	-30,197	-57,690
2009	1,602,959	1,053,858	549,101	13,453	15,971	10,128	-3,325	-61,015
2010	1,395,616	956,954	438,662	10,747	4,612	1,091	-9,656	-70,671
2011	2,487,985	1,100,000	1, 387,985	34,006	25,280	16,599	-17,407	-88,077
2012	2,737,168	1,100,000	1,637,173	40,111	18,300	9,598	-30,513	-118,590
2013	981,476	642,461	339,015	8,306	13,102	4,228	-4,078	-122,668
2014	3,824,537	1,100,000	2,724,537	66,751	114,375	74,005	7,254	-115,414
2015	3,015,042	1,100,000	1,915,042	46,919	43,873	21,433	-25,491	-140,899
2016	2,140,259	1,100,000	1,040,259	25,486	110,346	65,039	39,553	-101,347
2017	1,422,783	1,100,000	322,783	7,908	12,036	6,916	-992	-102,339
2018	2,086,458	1,100,000	986,458	24,168	19,743	9,999	-14,169	-116,508
2019	1,200,155	862,549	337,606	8,271	9,399	4,450	-3,821	-116,508
2020	1,941,682	1,100,000	841,682	20,621	6,923	5,300	-16,344	-136,674
2021	2,229,497	1,100,000	1,129,497	27,673	49,304	32,312	4,639	-132,035
2022	4,950,340	1,100,000	3,850,340	94,333	49,025	34,658	-59,675	-191,710
$2023^{1}$	2,791,181	1,100,000	1,691,181	41,434	86,551	55,223	13,789	-177,921
$2024^{2}$	2,010,500	1,100,000	910,500	22,300	TBD	TBD	TBD	TBD

<sup>&</sup>lt;sup>1</sup> Data for 2023 is preliminary

ADF&G will communicate with DFO on a weekly basis to monitor the sockeye salmon runs to the Skeena and Nass Rivers so inseason adjustments can be made to the sockeye salmon target. Starting on Sunday, July 28 when historically, the majority of Canadian origin sockeye salmon have moved through the fishery, the district will be managed on the strength of returning Southern SEAK wild salmon.

Regardless of the strength of pink salmon runs after SW 30, it is the department's intent to manage the district in terms of boat-days and overall effort similar to levels since the signing of the PST. Weekly fishing periods in August will be decided only after the department assesses the distribution of the fleet and the run strength of pink salmon. In recent years, District 4 has been open a similar amount of time as inside waters after the Treaty period.

# **Inside Fishing Areas**

As in past years, aerial surveys of early-run pink salmon producing areas, primarily Boca de Quadra, East Behm Canal, and Ernest Sound, will begin in late June or early July. Seining is expected to begin initially in District 1 and lower District 2 during SW 27 around July 4. District 4 and Section 7-A may open on Sunday, July 7 (SW 28).

<sup>&</sup>lt;sup>2</sup>DFO preseason forecast

TBD = To be determined

# **Traditional Fishery Openings**

The traditional purse seine fishery may begin during SW 27, in the southeast portion of Section 1-F and the southern portion of District 2. The first opening in Section 7-A will likely occur on July 7 (SW 28) depending on observed levels of pink salmon abundance. District 4 may also open on July 7 for an undetermined number of hours. Fishing time will likely begin with a series of 15-hour openings. If runs warrant additional fishing time, the fisheries will go from 15-hour to 39-hour openings on a 2-day on/2-day off, or a more continuous fishing schedule. However, extensive openings will not occur if pink salmon abundance does not justify it. Areas may be opened and closed where additional fishing time is warranted or where a more conservative management strategy is needed.

In District 1, the area from Cone Island to Foggy Point will be managed to reflect recent harvest patterns, effort levels, runs to Boca de Quadra, Hugh Smith Lake sockeye, and East Behm Canal river systems. Other areas in District 1, such as the Gravina Island shoreline, will also be managed to consider other user groups, the McDonald Lake sockeye salmon action plan, and to evenly distribute escapements into the Back Behm, West Behm, Cholmondeley, Kasaan, and the Section 7-B systems.

In District 2, purse seining will be limited to the southern portion of the district until escapements of pink salmon to northern Clarence Strait, Ernest Sound, Cholmondeley Sound, Kasaan Bay, and West Behm Canal can be adequately assessed. Additionally, purse seining should not be expected in middle Clarence Strait, along the Ship Island or Tolstoi Bay shorelines, until pink salmon run strength to West Behm Canal, Thorne Bay, District 6, and Section 7-B are determined. In District 2, the fishing pattern along the Ship Island shore and near Thorne Bay will be managed to reflect historical fishing patterns, to consider other user groups, and the need to achieve escapement to Thorne River, McDonald Lake (sockeye salmon), West Behm Canal, and lower Ernest Sound systems.

Southern portions of Section 3-A and western portions of Section 3-B will open initially on or after July 14 (SW 29). Additional areas will be open based on the strength of pink salmon runs to District 3 systems. By late July or early August, Section 3-C may also open.

# **Hugh Smith Lake Sockeye Salmon**

ADF&G will continue to monitor Hugh Smith Lake sockeye salmon. If inseason escapement is projecting to be below the lower bound of the escapement goal range of 8,000 - 18,000 fish, the department may consider the following management actions:

- 1. In SWs 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°58.66′ 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°07.90′ N lat, 131°04.85′ W long, and close the northern portion of the Section 1-B drift gillnet fishery to 1.0 nmi south of the latitude of Foggy Point Light.

### Districts 5, 6, and 7

Pink salmon runs to District 5 are expected to be good based on parent-year escapements. The 2 stock groups indexed for escapement in District 5, Affleck Canal and Shipley Bay, were both near the midpoint of their management target ranges. Purse seine openings will be dependent on observations of pink salmon abundance and are anticipated to begin at the end of July.

District 6 parent-year stock group escapement for the Burnett/Mosman/McHenry Inlets, Totem Bay, Ratz Harbor, and Whale Pass were within their management target range. Purse seine openings will be dependent on observations of pink salmon abundance. Openings could begin in late July in the Mosman, Burnett, and McHenry Inlets area. Openings in the Clarence Strait portion of District 6 will be restricted for the conservation of McDonald Lake sockeye salmon and are anticipated to begin the first week of August.

District 7 purse seine openings will vary by section in 2024. Parent-year escapement to many of the Anan stock groups (Section 7-A) and the Union Bay stock groups (Section 7-B) were above the middle of their management target ranges. Section 7-A is anticipated to open in early July. Subsequent openings will be based on observations of pink salmon escapement primarily to Anan Creek and harvest levels. However, early openings in Section 7-B will be restricted for conservation of McDonald Lake sockeye salmon. If opened before SW 31, Section 7-B would be restricted to the upper portion of the section.

#### **Fall Chum Salmon Fisheries**

Some watersheds along the eastern shoreline of Prince of Wales Island in District 2 produce late run chum salmon that have traditionally supported fall purse seine fisheries, including a directed fishery inside of Cholmondeley Sound. The Cholmondeley Sound fishery is supported by runs of fall chum salmon primarily at Disappearance and Lagoon Creeks, as well as several smaller creeks throughout the sound. Formal forecasts are not made for these stocks and parent-year escapements do not always provide an indication of potential run strength. The SEG range for the Cholmondeley Sound fall chum salmon is 30,000 to 48,000 fish based on aggregate peak aerial survey counts for Disappearance and Lagoon Creeks. Escapements were within or above the escapement goal range in 4 of the past 5 years.

After the closure of the directed pink salmon purse seine fishery in District 2, Cholmondeley Sound and adjacent waters of Clarence Strait may open for a directed fall chum salmon fishery. Initial aerial surveys for fall chum salmon in Cholmondeley Sound will begin near the end of August or early September. In addition, chum salmon harvest in District 2 during late summer directed pink fisheries will be monitored as an early indication of run strength. An initial opening could be expected to occur during the first or second week of September (SW 36 or 37) unless an earlier opening is warranted. Initial openings will be 12 hours in duration. The area that will be open to the purse seine fleet is open continuously for the troll fleet under summer troll regulations.

Additional openings will likely be 1 or 2 days each week, depending upon the strength of the run and expected effort levels. Waters inside Cholmondeley Sound may open, provided adequate numbers of chum salmon are observed in the South and West arms of Cholmondeley Sound. When Cholmondeley Sound is open, Sunny Cove and waters of Cholmondeley Sound proper will be closed south of Hump Island. These closures are in place to protect chum salmon escapements in Sunny Cove, the Lancaster, Dora Bay, and Kitkun systems, and closure lines will be moved based on perceived abundance during aerial surveys.

If extensive troll effort is observed by the department, a fishery rotation may be set up for both troll and seine gear groups. During any troll fishery extensions in District 2, trolling inside Cholmondeley Sound will be limited to the same number of days as provided for the purse seine fishery.

# NORTHERN SOUTHEAST PURSE SEINE FISHERIES

### 2022 PINK SALMON RUN

The Northern SEAK Inside pink salmon escapement index value of 3.15 million fish was within the escapement goal range of 2.5 to 6.0 million index fish. Escapement indices were within or above management target ranges for 5 of the 7 districts, and for 12 of the 21 pink salmon stock groups within this subregion. The Northern SEAK Outside Subregion, which includes Sections 13-A and 13-B, escapement index value of 1.09 million pink salmon was within the escapement goal range of 0.75 to 2.50 million index fish. Escapement indices were within or above management targets for 3 of the 7 pink salmon stock groups within this subregion.

### MANAGEMENT CONCERNS

Uncertainties about fleet size, distribution, and the department's reaction to those can only be addressed in season. ADF&G and the fishing industry will have to be flexible and able to react quickly to changes from historical fishing patterns. Above all, meeting escapement goals will continue to be the primary objective of the department and effort will be made to provide opportunity to harvest fish in excess of spawning escapement needs.

#### **Summer Chum Salmon**

In 2009, ADF&G adopted a lower bound SEG of 149,000 index spawners for summer chum salmon in the Northern Southeast Inside Subregion. This goal was based on aggregate peak aerial survey counts for 63 index streams in Northern SEAK Inside waters. Escapements of summer chum salmon were below this escapement goal threshold from 2008 to 2011. In 2012, the escapement goal was revised downward, based on an analysis that incorporated 2 decades of additional data, to 119,000 index spawners (Piston and Heinl 2011). This goal was revised again to 107,000 fish in 2018 (Piston and Heinl 2017). Escapements of summer chum salmon have met the current escapement goal in 3 of the past 5 years.

In contrast to the Northern SEAK Inside waters chum salmon, the Northern SEAK Outside (NSEO) waters chum salmon have performed poorly in recent years. The lower bound SEG of 25,000 index spawners for NSEO summer chum salmon has not been achieved since 2019. Due to the inability of this stock to achieve escapement objectives, restrictive management actions in the Sections 13-A and 13-B purse seine fisheries are expected to be implemented in 2024.

#### MANAGEMENT PLAN

The Northern SEAK purse seine fishery management plan consists of separate segments for the outside areas (Sections 13-A and 13-B), the inside areas, the fall chum salmon fishery, and hatchery THA fisheries.

# **Inside Fishing Areas, Early Runs**

The 2024 purse seine season will begin on Sunday, June 16, with initial open periods of 15 hours to harvest hatchery summer chum and to index the strength of early pink salmon runs. During the

first open period, seining will be allowed in a portion of District 12 at the Point Augusta Index area in Chatham Strait and within the Hidden Falls THA.

Directed purse seine fisheries on early-run pink salmon will be based on aerial survey and fishery performance assessments of run strength. Aerial surveys will begin in late June for the Northern Inside fishing districts. To provide an additional assessment of incoming run strength of early-run pink salmon, the department will open a 1.0 nmi area along the Point Augusta shoreline in District 12 in conjunction with other weekly openings. Test fishing will be conducted at Point Gardner and Kingsmill Point to assess the strength and timing of the pink salmon runs entering Frederick Sound. The Point Gardner test fishery will start on or about June 26 and the Kingsmill Point test fishery will start on or about July 3. Both test fisheries are scheduled to occur weekly through the month of July. Test fishing will also occur along the Hawk Inlet shoreline beginning on or about June 28 to assess the strength of pink salmon runs entering the northern inside waters of Districts 11 and 15. Incidental harvest of pink salmon at the Hidden Falls Hatchery terminal fishery during the first 3 weeks of the season will also be monitored as an indicator of pink salmon run strength.

Parent-year escapements of summer chum salmon in Tenakee Inlet were below average in 2019 and 2020. Although no formal forecasts are made for these stocks, some expectations can be based on parent-year escapements. Escapements in 2019 were 78% of the 2009–2018 average, and escapements of the main parent year in 2020 were 38% of the 2010–2019 average.

The 2022 parent-year pink salmon escapement index for Tenakee Inlet of 0.39 million fish was within the management target range of 0.21–0.49 million fish, and well above the recent even-year average index count of 0.12 million fish. In 2024, purse seine opportunity in Tenakee Inlet will depend on the observed development of escapements to local streams. Portions of the Basket Bay shoreline may be opened to harvest pink salmon returns to Tenakee Inlet and Peril Strait if salmon escapements to local streams are adequate.

The 2022 parent-year pink salmon escapement index for Hoonah Sound and Peril Strait (Section 13-C) of 0.39 million fish was within the management target range of 0.32–0.76 million fish. Openings may occur in portions of Peril Strait and Hoonah Sound if inseason assessment of pink salmon abundance indicates there are fish in excess of escapement needs; however, conservative management of pink salmon in Section 13-C should be expected. Parent-year summer chum salmon escapements to Saook Bay and Rodman Bay have been near long-term average values since 2022. Purse seine openings to target chum salmon will be based on an inseason assessment of abundance and will likely be very restrictive in time and area.

The parent-year pink salmon escapements for Frederick Sound and Lower Stephens Passage were mixed but most stock groups were within their management target range. The Pybus/Gambier stocks were comfortably within the middle of the management target range whereas the Portage Bay and Farragut Bay stock groups were within the lower end of their management target ranges. However, the Port Houghton stock group was below the lower end of the target range with poor escapement to early-run systems and moderate escapement to middle-run systems. The parent-year escapement index for Seymour Canal (Section 11-D) of 0.15 million pink salmon was at the lower end of the management target range of 0.15–0.37 million fish. Early openings along the District 10 mainland shoreline, although unlikely, will be dependent on results from the Point Gardner test fishery and observations of pink salmon abundance in late June to mid-July. Likewise, openings along the Admiralty Island shoreline will be based on test fishery results and observations of pink salmon abundance and would begin in mid- to late July. It is unlikely openings will occur

in Section 11-D in 2024 due to poor parent-year escapements. As such, the Big Bend portion of Seymour Canal in District 10 will likely not open.

In District 12, based on a well-defined evaluation of run strength and timing, the Hawk Inlet shoreline fishery may be opened in July to provide access to harvestable surpluses of northbound pink salmon stocks that would otherwise not be harvested. This fishery is managed according to the *Northern Southeast seine salmon fishery management plans* (5 AAC 33.366) and is described in detail in a subsequent section of this plan.

# INSIDE FISHING AREAS—MIDDLE AND LATE RUNS

Middle-run pink salmon should begin entering the inside waters of the northern districts during July. Seining in District 12 along the west Admiralty Island shoreline typically expands in late July, depending on the observed run strength of pink salmon stocks in Districts 10 and 11, and continues if Chatham Strait and Fredrick Sound escapements continue to develop satisfactorily. Southern boundaries for the fishery are typically extended into Statistical Area 112--17, from Point Hepburn to Fishery Point, and then to Parker Point in the last week of July or early August. At the 2015 Southeast and Yakutat Finfish BOF meeting, the *Northern Southeast seine salmon fishery management plans* was amended regarding openings along the west Admiralty shoreline: the portion of the Admiralty shoreline between Point Hepburn and Fishery Point may not open before July 17, and the portion of shoreline between Fishery Point and Parker Point may not open before July 21. Parent-year pink salmon escapements were within the management target range for the Freshwater Bay stock, below the range for the West Admiralty stock, and above the range for the Southwest Admiralty stock. Openings in this area will depend on developing runs of local stocks, as well as Hoonah Sound and Tenakee Inlet stocks. Openings may occur in this area in mid- to late July depending on observed run strength.

In Section 9-A, purse seine openings can occur along the Baranof Island shoreline north of Red Bluff Bay beginning in mid- to late July, and along southeast Baranof Island south of Patterson Point beginning mid- to late August. The 2022 parent-year pink salmon escapement to Red Bluff Bay of 0.03 million fish was well below the management target range of 0.09–0.21 million fish. The poor performance of this stock group in even years since 2018 makes purse seine openings in the Red Bluff Bay area of Section 9-A unlikely in 2024. Any openings will be based on inseason assessment of run strength. Additionally, any openings provided in July will include only the shoreline north of Red Bluff Bay to provide for escapement needs as well as subsistence salmon harvest at Falls Lake. Openings to the south of Red Bluff Bay may begin in early August depending on pink salmon abundance. If pink salmon escapements into Red Bluff Bay are sufficient, openings inside the bay may occur to harvest surplus pink salmon. The 2022 Port Walter (Southeast Baranof Island) pink salmon stock group escapement of 0.03 million fish was below the management target range of 0.07–0.16 million fish. Pink salmon runs to southeast Baranof Island normally begin after the first week of August. Openings in 2024 are unlikely but will be based on inseason assessment of run strength.

Pink salmon runs to Section 9-B are expected to be good. Parent-year escapements of pink salmon were near the midpoint of the escapement goal ranges. If inseason indications of abundance justify fishing periods in Section 9-B, they may begin in late July in upper 9-B with lower 9-B opening the first week of August.

Pink salmon escapements in District 14 were generally good in 2022, with the Northern Chichagof and Homeshore stocks within their management target ranges. Openings to harvest local stocks at

Idaho Inlet and Port Althorp in late July or early August may occur if pink salmon in excess of escapement needs are observed. The Whitestone shoreline area in District 14 may be open in late July or early August with opening times and areas dependent on observed strengths of local pink salmon stocks. ADF&G will also monitor pink salmon escapements in streams adjacent to Porpoise Islands, along Homeshore, and will consider purse seine openings in this area if there are harvestable pink salmon surplus to escapement needs.

Openings in District 12 along the Catherine Island shoreline and in portions of Kelp Bay may occur beginning mid-July to early August to harvest surplus pink or chum salmon returning to Kelp Bay streams, or to harvest surplus chum salmon returning to Hidden Falls if wild chum and pink salmon escapements are being met. The 2022 parent-year escapement index of pink salmon to Kelp Bay streams was 0.05 million fish, which was below the management target range of 0.06–0.14 million fish. Based on parent-year escapement estimates, pink salmon openings in Kelp Bay or on the Catherine Island shoreline are not likely in 2024; however, decisions to open these areas will not only be based on an inseason assessment of run strength to Kelp Bay, but the surrounding pink salmon stock groups will be considered as well. The chum salmon runs to Clear River and Ralph's Creek both have showed improved escapements since 2022. If strong runs of chum salmon are observed in Kelp Bay, the addition of Kelp Bay to openings of the Hidden Falls THA would be the most likely scenario to allow opportunity to harvest wild chum salmon. However, any opportunity here will be dependent on possible impacts to pink salmon escapements in Kelp Bay and the performance of the Hidden Falls Hatchery-produced chum salmon run.

### HAWK INLET SHORE FISHERY

The Admiralty Island shoreline between Funter Bay and Point Marsden in Chatham Strait is known as the Hawk Inlet shoreline. Purse seine openings may occur in this area to harvest pink salmon stocks migrating northward to Taku River, Lynn Canal, and Stephens Passage. During July, the department will manage the Hawk Inlet shoreline fishery in accordance with the Northern Southeast seine fishery salmon management plans that stipulates that any portion of the area north of Point Marsden may be opened when a harvestable surplus of pink salmon is observed. Openings must consider the conservation of all salmon species. The BOF removed the sunset clause and retained the 15,000 wild sockeye salmon harvest limit time period through July 22 at the March 2022 meeting. All wild sockeye salmon harvested by any purse seine boat the department identifies as fishing north of Point Marsden in District 12 during any fishing period through July 22 when other nearby areas (Point Marsden to Point Hepburn, Whitestone Shore, or the Point Augusta Test Fishery) are open concurrently, will be counted against the 15,000 wild sockeye salmon harvest limit for the Hawk Inlet fishery. During openings, the department will utilize fishery overflights, on-the-grounds sampling, interviews, and fish tickets to estimate the sockeye salmon harvest north of Point Marsden. Otolith analysis will be utilized to determine the enhanced sockeye salmon component in the harvest.

During late July and August, openings along the Hawk Inlet shoreline may extend northward to the latitudes of Hanus Reef Light or Point Couverden if north migrating pink salmon stocks are strong. If north migrating salmon runs are poor, and south migrating runs are strong, seining will be allowed only south of Point Marsden.

Openings along the Hawk Inlet shoreline north of Point Marsden are based on the observed run strength of north migrating stocks of pink salmon. The assessment methods used by the department to determine if run strengths are adequate and a harvestable surplus of pink salmon is available for harvest include:

- 1. inseason test fishing at designated locations along the Admiralty Island shoreline north of Point Marsden;
- 2. inseason aerial assessments of pink salmon abundance along the Admiralty Island shoreline north of Point Marsden;
- 3. parent-year escapements of pink salmon stocks for Lynn Canal, Stephens Passage, and Taku River:
- 4. 2024 pink salmon catches in the department's Taku River fish wheels; and
- 5. 2024 fishery performance of Districts 11 and 15 drift gillnet fisheries.

# **Outside Fishing Areas (Sections 13-A and 13-B)**

Management of Sections 13-A and 13-B, along the outer coasts of Baranof and Chichagof Islands, is distinct from the management of the Northern Inside areas. Salmon returning to these areas enter directly from the ocean and do not pass through major inside migration corridors. In Section 13--A, the 2022 parent-year pink salmon escapement index for the Portlock Harbor stock group was well above the management target range but below the recent 10-year average of 504,000 index fish. The Salisbury Sound stock group was slightly below the target escapement range and the Slocum Arm stock group was within the target escapement range. In 2022, the Lisianski Inlet stock group was well below its target escapement range and was the smallest escapement estimate since 2000. Openings to target pink salmon are likely in Portlock Harbor and Slocum Arm, but openings in Lisianski Inlet are not likely. Any openings in these areas will be dependent on both observed pink and chum salmon abundance.

In Section 13-B, the 2022 parent-year pink salmon escapement indices were below the management target range for the Whale Bay and West Crawfish Inlet stock groups; the Sitka Sound stock group was within its management target range in 2022. Based on the performance of the parent-year runs, purse seine fisheries can be expected in Sitka Sound, but are not likely in West Crawfish and Whale Bay. However, openings in these areas will depend entirely on inseason observations of pink and chum salmon and could begin as early as mid-July.

Based on the recent poor performance of NSEO summer chum salmon, openings in portions of Sections 13-A and 13-B will be restricted by time and area through SW 32 (early August). Additionally, there will be no directed openings intended to harvest wild summer run chum salmon in these areas in 2024. Extended or continuous fishing opportunities may be provided on specific pink salmon stock groups in Sections 13-A and 13-B if run size and fleet distribution allow for it. Consecutive 15-hour, 39-hour, or continuous openings will be considered as management options in order to provide opportunity and ensure that escapement goals are met; however, extended openings will be dependent on inseason observations of pink and chum salmon abundance.

Short purse seine openings to harvest sockeye salmon along the outer coast of Baranof Island may occur in early July to target fish returning to Necker Bay and in early August to target returns to Redfish Bay. Openings will be dependent on inseason observations of run strength, and a cautious approach will be used to ensure that escapement and subsistence fishery needs are met. Targeted sockeye salmon openings are possible at Redoubt Bay beginning around mid-July provided that the inseason projection of escapement is greater than 40,000 fish.

#### **Fall Chum Salmon Fisheries**

Portions of Northern SEAK support runs of fall-run chum salmon that are harvested by purse seine gear. Openings targeting fall chum salmon will be based on observed run strength. Fishing in

Security Bay and Port Camden typically occurs the first several weeks in September. Parent-year escapements to Security Bay in 2019 and 2020 were within the escapement goal range of 5,000 to 15,000 chum salmon. Port Camden fall chum salmon has an escapement goal range of 2,000 to 7,000 fish. In 2019 chum salmon escapement was within the escapement goal range but fell below the lower end in 2020. Fishing opportunities in Excursion Inlet may occur in late August or early September, depending on run strength. Parent-year escapement to Excursion River were below the SEG range of 4,000 to 18,000 fish in 2019 and 2020. Southwest Admiralty Island streams do not have established goals for fall chum salmon escapements. These systems will be monitored, and targeted purse seine fisheries may occur if harvestable surpluses are identified. In Section 13-B, targeted fall chum salmon openings may occur in Nakwasina Sound and Katlian Bay; however, opportunities are most often concurrent with pink salmon fisheries in Sitka Sound. Fall chum salmon fisheries will be managed based on observations of run strength in the bays beginning in mid-August and continuing through September.

# HATCHERY TERMINAL HARVEST AREA FISHERIES

For the 2024 season, THA purse seine fisheries to harvest fish returning to Southern Southeast Regional Aquaculture Association (SSRAA) hatchery release sites will occur at Anita Bay, Carroll Inlet, Kendrick Bay, and Neets Bay. Fisheries to harvest fish returning to Northern Southeast Regional Aquaculture Association (NSRAA) hatchery release sites will occur at Thomas Bay, Southeast Cove, Hidden Falls, Deep Inlet, Crawfish Inlet, and possibly the Amalga Harbor remote release site to harvest returning Douglas Island Pink and Chum (DIPAC) fish. These THA fisheries will be managed in accordance with existing BOF approved management plans and in consultation with the hatchery operators. Details regarding the open fishing periods by gear type in each area will be announced via commercial fishery advisory announcements. Table 4 summarizes the expected runs to each release site in Southern Southeast and Table 5 summarizes the expected runs to each release site in Northern Southeast.

Fishermen are requested to ensure fish caught in THAs are reported correctly on fish tickets. This will enable accurate otolith-mark sampling and documentation of fish taken from THAs.

### SOUTHERN SOUTHEAST TERMINAL HARVEST AREAS

### **Carroll Inlet Terminal Harvest Area Fishery**

For 2024, SSRAA has forecasted a total run of 6,200 Carroll Inlet Chinook salmon. By 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, Saturday, June 15, through 12:00 noon, Sunday, June 30. The 500-yard stream closure (5 AAC 39.290) will not be in effect in the Carroll Inlet THA. Details of the 2024 season fishing schedule and area for the Carroll Inlet THA were announced in a separate ADF&G advisory announcement released on April 19.

### **Neets Bay Terminal Harvest Area Fishery**

In 2024, SSRAA is forecasting total runs of 1,540,000 summer chum, 100 Chinook, 109,700 coho, and 40,000 fall chum salmon with anticipated terminal runs of 1,078,000 summer chum, 100 Chinook, 43,900 coho, and 23,200 fall chum salmon to the Neets Bay THA.

The Neets Bay THA will open Monday, July 1. Beginning at 12:00 noon, Saturday, June 30, through 12:00 noon, Saturday, 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 open fishing area for the Neets Bay THA will be those waters east of the longitude of the easternmost tip of Bug Island at 131°39.14′ W long. The Neets Bay THA will not expand to the longitude of Chin Point for net gear in 2024.

Details of the 2024 season fishing schedule and area for the Neets Bay THA were announced in a separate ADF&G advisory announcement released on April 19. Additional fisheries, if warranted, will be announced by advisory announcement, and opened by EO in consultation with SSRAA.

# **Kendrick Bay Terminal Harvest Area Fishery**

For 2024, SSRAA is expecting a total run of 1,238,000 summer chum salmon. By regulation, the Kendrick Bay THA opens on a continual basis from June 15 through September 30.

# **Anita Bay Terminal Harvest Area Fishery**

For 2024, SSRAA is forecasting total runs of 458,000 summer chum, 7,700 Chinook, and 14,300 coho salmon to the Anita Bay release site. It is anticipated that 183,200 summer chum, 5,400 Chinook, and 5,700 coho salmon will be available for common property harvest in the Anita Bay THA (Table 4). Details of the 2024 Anita Bay THA fishing schedule and area were announced in a separate ADF&G advisory announcement released on April 18.

The Anita Bay THA will be open continuously to harvest salmon with troll gear from 12:01 a.m., Saturday, June 1, through 11:59 p.m., Sunday, November 10. The Anita Bay THA will be open to harvest salmon with drift gillnet and purse seine gear concurrently from 5:00 a.m., Saturday, June 1, through 12:00 noon, Wednesday, June 12, then on a rotational basis from 12:00 noon, Thursday, June 13, through 12:00 noon, Saturday, August 31, then concurrently from 12:01 a.m., Sunday, September 1, through 11:59 p.m., Sunday, November 10. The Anita Bay THA will close for the season at 11:59 p.m., Sunday, November 10, 2024.

Table 4.—Expected 2024 runs to SSRAA enhancement projects by release location.

Species/Run	Release Location	Common Property Harvest	Terminal	Broodstock	Cost Recovery	Total Run
Chinook	Whitman Lake	2,100	0	1,200	3,600	6,900
Chinook	Anita Bay	2,300	5,400	0	0	7,700
Chinook	Carroll Inlet	3,100	3,100	0	0	6,200
Chinook	Neets Bay	0	100	0	0	100
Chinook	Port St. Nick	2,200	5,100	0	0	7,300
Chinook	Crystal Lake	1,400	0	1,400	0	2,800
Chinook	Total	11,100	13,700	2,600	3,600	31,000
Coho	Herring Cove/Whitman	9,200	0	6,000	3,200	18,400
Coho	Nakat Inlet	17,100	7,400	0	0	24,500
Coho	Anita Bay	8,600	5,700	0	0	14,300
Coho	Neets Bay	65,800		1,000	42,900	109,700
Coho	Crystal Lake	2,100	1,900	200	0	4,100
Coho	Klawock	130,100	0	3,500	52,200	185,800
Coho	Total	232,900	15,000	10,700	98,300	356,900

Summer chum	Neets Bay	462,000	95,000	140,000	843,000	1,540,000
Summer chum	Anita Bay	274,800	183,200	0	0	458,000
Summer chum	Burnett	288,900	0	100,000	574,100	963,000
Summer chum	Kendrick Bay	928,500	309,500	0	0	1,238,000
Summer chum	Nakat Inlet	249,000	166,000	0	0	415,000
Summer chum	Port Asumcion	377,500	0	0	377,500	755,000
Summer chum	Total	2,580,700	753,700	240,000	1,794,600	5,369,000
Fall chum	Burnett	24,600			17,600	42,000
Fall chum	Nakat Inlet	12,200	7,800			20,000
Fall chum	Neets Bay	16,800		10,000	13,200	40,000
Fall chum	Total	53,400	7,800	10,000	30,800	102,000

### NORTHERN SOUTHEAST TERMINAL HARVEST AREAS

# **Southeast Cove Terminal Harvest Area Fishery**

NSRAA is forecasting a total run of 215,000 summer chum salmon to the Southeast Cove THA (Table 5). A portion of the run could be harvested in common property fisheries in Chatham Strait. The Southeast Cove THA will be open to common property purse seine, drift gillnet and troll from Sunday, June 16, through Saturday, August 3, 2024. The 2024 gear rotation will be purse seine on Sundays and Thursdays, drift gillnet on Tuesdays and Wednesdays, and troll on Mondays, Fridays, and Saturdays. Details of the 2024 Southeast Cove THA fishing schedule and area were announced in a separate ADF&G advisory announcement released on April 23.

In 2024, cost recovery will occur in the Southeast Cove THA with a harvest goal of roughly 60,000 chum salmon. If cost-recovery goals cannot be met during days when the purse seine and drift gillnet fisheries are closed, then a brief closure may occur near the peak of the run.

#### **Thomas Bay Terminal Harvest Area Fishery**

NSRAA is forecasting a total run of 381,000 chum salmon to the Thomas Bay THA (Table 5). A portion of the run will be harvested in common property fisheries in Chatham Strait and Frederick Sound. No cost recovery is planned in 2024. The Thomas Bay THA will be open to common property purse seine and troll fisheries from Sunday, June 16, through Saturday, August 3, 2024. Purse seine openings will occur on Sundays and Thursdays, and troll openings will occur on days closed to purse seining. Details of the 2024 Thomas Bay THA fishing schedule and area were announced in a separate ADF&G advisory announcement released on April 18.

# Amalga Harbor Terminal Harvest Area Fishery

In order to increase the common property share of their hatchery-produced chum salmon production, DIPAC has provided common property purse seine opportunities in the Amalga Harbor THA. Decisions about these openings will be based on run strength of hatchery-produced chum salmon, progress toward DIPAC cost-recovery goals, expected effort levels, and considerations for nontarget species. Openings may occur in Section 11-A and will be limited to a portion of the Amalga Harbor THA, Subdistrict 111-55. These openings may occur in July, will only be on Thursdays, and will be limited to 9 hours (9:00 AM–6:00 PM.). If there are conservation concerns for nontarget species in nearby systems, the open area or time may be reduced. Details of the open area and times will be included in the normal purse seine advisory announcement at the appropriate time. In 2024, there are no common property openings anticipated.

# **Hidden Falls Terminal Harvest Area Fishery**

The Hidden Falls Hatchery, operated by NSRAA, expects a run of 1,553,000 chum salmon (Table 5). NSRAA needs 220,000 chum salmon for broodstock and as many as 150,000 chum salmon may be taken in a cost-recovery fishery intended to assess run strength inseason. This potentially leaves 1,183,000 chum salmon available for common property harvest. NSRAA does not intend to use a tax assessment on any potential common property harvest of chum salmon to satisfy cost-recovery needs as provided under AS 16.10.455.

Common property purse seine openings at Hidden Falls in 2024 will occur on Sundays and Thursdays beginning Sunday, June 16. Following the initial fishing period on June 16, future openings will be dependent on inseason assessments of run strength and timely harvest reporting. A contraction of the offshore boundary of the Hidden Falls THA to within 1.0 nmi off the Baranof Island shoreline is likely for the 2024 season to conserve weak Chinook and pink salmon runs destined for systems farther inland.

The *Hidden Falls Hatchery Terminal Harvest Area Salmon Management Plan* (5 AAC 33.374) provides guidelines for allocation of hatchery-produced chum and Chinook salmon in the Hidden Falls THA. The management plan describes different management approaches through June 30 and beginning July 1. If it becomes necessary to close the purse seine fishery in June to achieve broodstock goals, then troll retention of chum salmon in the THA is prohibited as long as at least 7 days remain until July 1. Also, provided that some trollers are present, in order to allow increased troll access to Chinook salmon, Kasnyku Bay will be closed to purse seining in June west of a line from North Point to the westernmost tip of Round Island and north of the latitude of the westernmost tip of Round Island. Beginning July 1, areas within the THA may be closed to protect chum or Chinook salmon broodstock and trollers may only retain chum salmon in numbers not exceeding the total number of Chinook salmon on board.

# **Deep Inlet Terminal Harvest Area Fishery**

NSRAA expects runs of 2,454,000 chum, 10,000 Chinook, and 28,000 coho salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2024 (Table 5). This season, NSRAA does anticipate cost-recovery operations in the Deep Inlet THA and a portion of the THA will be closed to all common property fisheries to aid in the cost-recovery harvest. Additionally, NSRAA will need approximately 122,500 chum salmon for broodstock. A portion of the Deep Inlet THA may be closed in late August to facilitate chum salmon broodstock collection for the Medvejie Hatchery facility. Most 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 March 2022 meeting passed a regulation that set the time ratio for drift gillnet openings to purse seine openings at 1:1.

During the 2024 Deep Inlet THA season (June 1 to September 20) purse seine fishing is scheduled to be open on Sunday, Thursday, and Friday. Drift gillnet fishing is scheduled to be open on Monday, Tuesday, and Wednesday; the troll fishery will be open on Saturday each week, or when net fisheries are closed. The Deep Inlet THA west of 135°20.75′ W long will be closed to drift gillnet and purse seine gear from June 1 through June 15. Details of the 2024 Deep Inlet THA

fishing schedule are included in an ADF&G advisory announcement published April 19. If changes are necessary, the revised fishing schedule will be issued in a subsequent advisory announcement.

During the 2024 season, the boundaries of the Deep Inlet THA may be changed by NSRAA and ADF&G to help resolve conflicts between fishermen and local private landowners in the area if conflicts occur. Conflicts can be avoided by reducing boat wakes in areas near private docks, by reducing excessive noise and lights prior to openings, and by anchoring well away from private residences.

By EO issued under 5 AAC 39.265, harvesters participating in purse seine and drift gillnet fisheries in the Deep Inlet THA are required to retain and utilize all salmon harvested. This action is being taken 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 enable the department and NSRAA to have full and accurate reporting of returns. This requires that all salmon retained for personal use and not sold to be reported on fish tickets. Fishermen are advised that if they have fish on board from other fishing areas, they should keep them separate for reporting and sampling purposes.

In early September, the Deep Inlet THA boundaries may be adjusted by ADF&G to reduce harvest of wild coho salmon returning to Salmon Lake or hatchery coho salmon returning to Medvejie Hatchery needed for broodstock. THA boundary adjustments to protect coho salmon will be based on historical run timing and inseason observations of abundance.

# **Crawfish Inlet Terminal Harvest Area Fishery**

The District 13: Crawfish Inlet Terminal Harvest Area Salmon Management Plan (5 AAC 33.380) states that the department, in consultation with NSRAA, shall, by EO, open and close the Crawfish Inlet THA to provide for the harvest of hatchery-produced Chinook and chum salmon by purse seine, drift gillnet, and troll gear. The runs of Chinook and chum salmon to Crawfish Inlet are being managed with a troll priority.

NSRAA expects a run of 1,336,000 chum salmon to the Crawfish Inlet remote release site (Table 5). NSRAA plans on conducting a cost-recovery fishery this season in Crawfish Inlet. The number of chum salmon available for common property harvest will depend entirely on the progress of the cost-recovery fishery. No chum salmon are needed for broodstock in Crawfish Inlet.

Purse seine openings at Crawfish Inlet will be conducted as needed following the cost-recovery fishery to maintain fish quality and prevent large buildups of fish. Seine openings may occur inside the boundaries of the SHA depending on abundance of fish and balancing the troll priority. Should they occur, the purse seine openings will happen on Sundays and Thursdays. Purse seiners are advised that openings at Crawfish Inlet during the 2024 season may be announced with a minimum 24-hour notice, if necessary, to maximize fish quality.

Table 5.–Expected 2024 hatchery salmon runs to Northern SEAK by hatchery organization and release location.

Species	Release Location	Hatchery Operator	Common Property Harvest	Cost Recovery	Broodstock	Total Run
Chinook	Gast/Fish Creek/Lena	DIPAC	820		280	1,100
Chinook	Hidden Falls	NSRAA	500	0	400	900
Chinook	Medvejie/Deep Inlet	NSRAA	6,000	0	4,000	10,000
Chinook	Crescent Bay	SSC	800	1,000	0	1,800
		Total	8,120	1,000	4,680	13,800
Sockeye	Port Snettisham	DIPAC	64,600	59,600	6,800	131,000
Coho	Port Armstrong	AKI	45,200	38,200	7,000	90,400
Coho	Deer Lake (Mist Cove)	NSRAA	41,000	41,000	0	82,000
Coho	Gastineau Channel	DIPAC	30,200	16,200		46,400
Coho	Hidden Falls	NSRAA	18,000	8,000	10,000	36,000
Coho	Deep Inlet/Medvejie	NSRAA	24,500	0	3,500	28,000
Coho	Crescent Bay	SSC	5,000	3,200	200	8,400
		Total	163,900	106,600	20,700	291,200
Pink	Port Armstrong	AKI	219,600	0	257,800	477,400
Pink	Crescent Bay	SSC	162,000	194,500	3,500	360,000
		Total	381,600	194,500	261,300	837,400
Chum	Port Armstrong	AKI	8,600	57,800	20,000	86,400
Chum	SE Cove	NSRAA	156,000	59,000	0	215,000
Chum	Gunnuk Creek	NSRAA	0	191,000	20,000	211,000
Chum	Thomas Bay	NSRAA	381,000	0	0	381,000
Chum	Gastineau/Limestone	DIPAC	638,300	314,200	200,000	1,152,500
Chum	Boat Harbor/Amalga	DIPAC	1,729,600	739,600		2,469,200
Chum	Medvejie/Deep Inlet	NSRAA	1,334,000	997,500	122,500	2,454,000a
Chum	Hidden Falls	NSRAA	1,183,000	150,000	220,000	1,553,000
Chum	Crawfish Inlet	NSRAA	_ b	_b	0	1,336,000
Chum	Crescent Bay	SSC	37,120	17,280	3,600	58,000
		Total	5,467,620	2,526,380	586,100	7,462,100

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

<sup>&</sup>lt;sup>a</sup> Projections for Medvejie/Deep Inlet includes chum salmon from the Sitka Sound Science Center.

<sup>&</sup>lt;sup>b</sup> Common property and cost-recovery harvest will depend on progress of the cost-recovery fishery in season.

### REFERENCES CITED

- Burnham, K. P., and D. R. Anderson. 2004. Multimodel inference: Understanding AIC and BIC in model selection. Sociological Methods & Research, Vol. 33(2): 261-304.
- Conrad, S., and T. Thynes. *In prep*. Overview of the 2023 Southeast Alaska and Yakutat commercial, personal use, and subsistence salmon fisheries. Alaska Department of Fish and Game, Fishery Management Report, Anchorage.
- Huang, B., P. W. Thorne, V. F. Banzon, T. Boyer, G. Chepurin, J. H. Lawrimore, M. J. Menne, T. M. Smith, R. S. Vose, and H. M. Zhang. 2017. Extended reconstructed sea surface temperature, version 5 (ERSSTv5): upgrades, validations, and intercomparisons. Journal of Climate 30:8179–8205.
- Miller, S. E., J. M. Murphy, S. C. Heinl, A. W. Piston, E. A. Fergusson, R. E. Brenner, W. W. Strasburger, and J. H. Moss. 2022. Southeast Alaska pink salmon forecasting models. Alaska Department of Fish and Game, Fishery Manuscript No. 22-03, Anchorage.
- Murphy, J. M., E. A. Fergusson, A. Piston, A. Gray, and E. Farley. 2019. Growth and harvest forecast models for Southeast Alaska pink salmon. North Pacific Anadromous Fish Commission Technical Report No. 15:75–91.
- Orsi, J. A., E. A. Fergusson, A. C. Wertheimer, E. V. Farley, and P. R. Mundy. 2016. Forecasting pink salmon production in Southeast Alaska using ecosystem indicators in times of climate change. N. Pac. Anadr. Fish Comm. Bull. 6: 483–499. (Available at https://npafc.org)
- Orsi, J. A., M. V. Sturdevant, J. M. Murphy, D. G. Mortensen, and B. L. Wing. 2000. Seasonal habitat use and early marine ecology of juvenile Pacific salmon in Southeastern Alaska. North Pacific Anadromous Fish Commission Bulletin No. 2: 111–122.
- Piston, A. W., and S. C. Heinl. 2011. Chum salmon stock status and escapement goals in Southeast Alaska. Alaska Department of Fish and Game, Special Publication No.11-21, Anchorage.
- Piston, A. W., and S. C. Heinl. 2017. Chum salmon stock status and escapement goals in Southeast Alaska. Alaska Department of Fish and Game, Special Publication No. 17-12, Anchorage.
- Piston, A. W., S. Heinl, S. Miller, R. Brenner, J. Murphy, J. Watson, A. Gray, and E. Fergusson. 2019. Pages 46–49 [*In*] R. E. Brenner, A. R. Munro, and S. J. Larsen, editors. 2019. Run forecasts and harvest projections for 2019 Alaska salmon fisheries and review of the 2018 season. Alaska Department of Fish and Game, Special Publication No. 19-07, Anchorage.
- Piston, A. W., J. Murphy, J. Moss, W. Strasburger, S. C. Heinl, E. Fergusson, S. Miller, A. Gray, and C. Waters. 2021. Operational Plan: Southeast coastal monitoring, 2021. Alaska Department of Fish and Game, Regional Operational Plan No. ROP.CF.1J.2021.02, Douglas.
- Wertheimer A. C., J. A. Orsi, M. V. Sturdevant, and E. A. Fergusson (2006) Forecasting pink salmon harvest in Southeast Alaska from juvenile salmon abundance and associated environmental parameters. In Proceedings of the 22nd Northeast Pacific Pink and Chum Workshop. Edited by H. Geiger (Rapporteur). Pac. Salmon Comm. Vancouver, British Columbia. pp. 65–72.
- Wertheimer, A. C., J. A. Orsi, E. A. Fergusson, and M. V. Sturdevant. 2011. Forecasting pink salmon harvest in Southeast Alaska from juvenile salmon abundance and associated environmental parameters: 2010 returns and 2011 forecast (NPAFC Doc. 1343) Auke Bay Lab., Alaska Fish. Sci. Cen., Nat. Mar. Fish. Serv., NOAA, 17109 Point Lena Loop Road, Juneau, AK 99801-8626, USA, 20 p.; http://www.npafc.org/new/pub\_documents.html.

# LIST OF MANAGEMENT CONTACTS

The following ADF&G Division of Commercial Fisheries management staff may be contacted regarding this plan:

Anne Reynolds-Manney Troy Thynes

Region 1 Supervisor Region 1 Management Coordinator 2030 Sea Level Drive, Suite 205 P.O. Box 667

Ketchikan, AK 99901 Petersburg, AK 99833

(907) 225-9677 (907) 772-3801

Scott Forbes and Ray Vinzant Katie Taylor and Tom Kowalske Area Management Biologists Area Management Biologists

802 3rd Street P.O. Box 667

Douglas, AK 99824 Petersburg, AK 99833 (907) 465-4250 (907) 772-3801

Bo Meredith, Justin Breese and Aaron Dupuis and Anthony Walloch

Whitney Crittenden Area Management Biologists
Area Management Biologists 304 Lake Street, Room 103

2030 Sea Level Drive, Suite 205 Sitka, AK 99835

Ketchikan, AK 99901 (907) 747-6688 (907) 225-5195