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2025 Taku and King Salmon Rivers Chinook Salmon Stock Status and Action Plan

by

Grant T. Hagerman

Scott Forbes

Jeffrey T. Williams

and

Daniel J. Teske

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Alaska Department of Fish and Game **Divisions of Commercial Fisheries and Sport Fish**

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 figures or figure captions.

Weights and measures (metric)

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

Weights and measures (English)

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

Time and temperature

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

Physics and chemistry

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

General

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

Mathematics, statistics

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

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By

Grant Hagerman
Alaska Department of Fish and Game, Division of Commercial Fisheries, Sitka
Scott Forbes and Jeffrey Williams
Alaska Department of Fish and Game, Division of Commercial Fisheries, Douglas
and
Dan Teske
Alaska Department of Fish and Game, Division of Sport Fish, Douglas

Alaska Department of Fish and Game
802 3rd, Douglas, Alaska, 99824-0020

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The Regional Information Report Series was established in 1987 and was redefined in 2007 to meet the Division of Commercial Fisheries regional need for publishing and archiving information such as 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/.

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Grant Hagerman
Alaska Department of Fish and Game, Division of Commercial Fisheries,
304 Lake St. Rm. 103
Sitka, AK 99835 USA

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

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

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TABLE OF CONTENTS

Page

TABLE OF CONTENTS (Continued)

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Escapements of Chinook salmon have fallen below the lower bound of the current biological escapement goal (BEG) range for the King Salmon River for 3 of the last 5 years and the Taku River in 5 of the last 5 years (2019–2023). In response to guidelines established in the *Policy for the management of sustainable salmon fisheries (*5 AAC 39.222), the Alaska Department of Fish and Game recommended that the Taku and King Salmon rivers Chinook salmon *Oncorhynchus tshawytscha* stocks continue to be designated as stocks of *management concern*. A management concern is defined in the above policy 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 sustainable escapement goal, BEG, optimum escapement goal, or other specified management objectives for the fishery." This action plan provides an update to the *Northern Southeast Alaska King Salmon Stock Status and Action Plan, 2022* which outlined conservation measures for Chinook salmon stocks returning to the Taku, King Salmon, and Chilkat rivers. Chilkat River Chinook salmon are no longer designated as a stock of concern and conservation measures specific to the Chilkat River have been removed from this action plan. The recommended conservation measures for the Taku and King Salmon rivers are continued with some modifications. Management actions have been effective at reducing harvest rates; however, Chinook salmon productivity remains poor, and escapement goals have not been consistently achieved.

Keywords: Chinook salmon, *Oncorhynchus tshawytscha,* Chilkat River, King Salmon River, Taku River, Southeast Alaska, stock of concern, fishing, sustainable salmon fisheries policy, Alaska Board of Fisheries.

INTRODUCTION

The *Policy for the management of sustainable salmon fisheries* (SSFP; 5 AAC 39.222) directs the Alaska Department of Fish and Game (the department) to provide the Alaska Board of Fisheries (the board) with reports on the status of salmon stocks and identify any salmon stocks that present a concern related to yield, management, or conservation during regularly scheduled board meetings. Herein, the King Salmon and Taku rivers stocks of Chinook salmon *Oncorhynchus tshawytscha* will be referred to as King Salmon River Chinook salmon and Taku River Chinook salmon.

In January 2018, the board designated Chinook salmon stocks from the Chilkat and King Salmon rivers as stocks of management concern and in March of 2022 the board continued these designations and added the Taku River Chinook salmon stock as a stock of management concern. Subsequently, in 2022, the Northen Southeast Alaska Chinook salmon action plan (Hagerman et al. 2022) was adopted by the board. At the October 2024 board work session, the department recommended continuing to designate Chinook salmon stocks from the Taku and King Salmon rivers as stocks of management concern. The board adopted these recommendations, and a draft action plan was developed for consideration at the 2025 Southeast and Yakutat Finfish and Shellfish regulatory board meeting. The stock of concern recommendations were based on guidelines established in the SSFP. The SSFP states that a management concern is "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, biological escapement goal (BEG), optimal escapement goal, or other specified management objective. Chronic inability is 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." Escapements of Chinook salmon in the King Salmon River were below the lower bound of the BEG range of 120 to 240 fish in 7 out of 10 years from 2015 to 2024 (Table 1); and escapements of Chinook salmon to the Taku River were below the lower bound of the BEG range of 19,000 to 36,000 fish in 8 out of 10 years from 2014 to 2023 and in the previous 5 consecutive years from 2019 to 2023 (Table 2). It is important to note that although escapements for these 2 Chinook salmon stocks have consistently failed to

achieve the lower bound of their escapement goal ranges, harvest rates have declined significantly over the past 7 years through conservative management actions.

The Taku River originates in Canada and approximately 10% of the drainage is in Alaska (Figure 1). Management of shared fishery stocks is conducted on a cooperative basis under the auspices of the Pacific Salmon Treaty (PST) negotiated between the 2 countries; the latest agreement was finalized in 2018, implemented in 2019, and will be in effect through 2028.

Poor production and declines of Chinook salmon runs over at least the past decade have been well documented throughout much of the species' range (ADFG 2013). Below average survival rates and abundance of Southeast Alaska (SEAK) stocks have persisted since 2007. Although freshwater factors may be contributing to these declines, the wide geographic scope of the effect suggests poor production primarily stems from factors in the ocean. This theory is supported by information produced through the department's SEAK Chinook salmon stock assessment program, which includes estimating marine survival rates for 4 wild Chinook salmon stocks originating in the Chilkat, Taku, Stikine, and Unuk rivers. Freshwater survival is also estimated for wild Chinook salmon stocks originating from the Chilkat and Unuk rivers. The long time series of detailed stock assessment information available for these stocks, including survival rates, is unique to the SEAK program, and is not available for wild Chinook salmon stocks found elsewhere along the coast. Freshwater survival rates of these 4 SEAK Chinook salmon indicator stocks have fluctuated similarly over time and do not show long-term trends; however, marine survival rates for these same stocks have severely declined and are currently far below prior long-term averages.

This draft action plan provides the department's assessment of the stocks of Chinook salmon from the King Salmon and Taku rivers as stocks of management concern, summarizes historical assessments of annual run sizes, and describes the existing regulations and emergency order (EO) authority that the department follows to manage for escapement goals. Options are then presented for potential management actions for sport, commercial, personal use, and subsistence fisheries, and research projects for these Chinook salmon stocks. Because of similar migration routes through Icy Strait and Chatham Strait, management actions for these 2 Chinook salmon stocks in the mixed stock fisheries that occur in Chatham Strait and Icy Strait (sport, troll, and purse seine) overlap and affect one another.

STOCK ASSESSMENT BACKGROUND

KING SALMON RIVER

The King Salmon River is a clearwater system located about 30 km (19 mi) south of Juneau on Admiralty Island (Figures 2 and 3). This river has the only documented island stock of Chinook salmon in SEAK (Mecum and Kissner 1989). This stock does not support directed fisheries but presumably is harvested incidentally in SEAK marine waters in sport and commercial fisheries. Harvest estimates of the King Salmon River Chinook salmon are not available because the stock contribution in marine fisheries has not been determined.

Escapement

The King Salmon River Chinook salmon stock is 1 of 11 Chinook salmon indicator stocks in SEAK, each of which are monitored annually for escapement of large fish. Escapements are based on weir counts from 1983 to 1992, expanded index counts using helicopter or foot surveys from 1971 to 1982 and 1993 to 2011, and foot surveys from 2012 to 2024. Ten years of concurrent weir

and index count data were used to estimate a survey expansion factor of 1.52. Information gathered at the weir indicates the peak run timing for this stock occurs about mid-July, with all fish in the river by approximately July 31 (Josephson et al. 1993).

Since 1975, Chinook salmon escapements in the King Salmon River have averaged 153 fish. Escapements during the recent 10-year period (2015–2024) averaged 85 Chinook salmon and the recent 5-year period (2020–2024) averaged 102 Chinook salmon (Table 1). Chinook salmon escapements to the King Salmon River over the last 5 years, including the 2024 estimate, have been below the lower bound of the BEG (120–240 fish) in every year except 2021 and 2022 (Table 1).

Harvest

Harvest of King Salmon River Chinook salmon has never been quantified. No historical coded-wire-tagging has occurred and use of genetic stock identification (GSI) is not realistic given the low magnitude of production and resulting insufficient representation in any mixed stock fishery. However, King Salmon River Chinook salmon were used as a source of broodstock for fish released from several hatcheries in SEAK in the 1970s and 1980s. Information from those hatchery releases and resulting coded wire tag (CWT) recoveries indicates a portion of the King Salmon River stock rears in SEAK (inside rearing). As a result, this stock presumably has harvest rates similar to other SEAK Chinook salmon stocks (e.g., Chilkat River) having inside rearing behavior. At one time, King Salmon River Chinook salmon were used as an escapement indicator stock by the Chinook Technical Committee (CTC) of the Pacific Salmon Commission (PSC). Overall productivity of the stock has been monitored annually. Harvest rates of Chinook salmon released at nearby Crystal Lake—which used Andrew Creek Chinook salmon as broodstock—have served as a surrogate in this monitoring process. Since 2011, harvest rates of these Chinook Salmon have averaged 46%.

TAKU RIVER

The Taku River is a transboundary glacial system that supports an outside rearing stock of Chinook salmon. The Taku River originates in British Columbia and drains over 17,000 square kilometers before its terminus at Taku Inlet, approximately 25 km northeast of Juneau (Figures 1 and 3). The Taku River Chinook salmon run spawns entirely in Canada and is managed through provisions of Chapter 1 of the PST.

Escapement

The Taku River stock of Chinook salmon is 1 of 11 Chinook salmon indicator stocks in SEAK, each of which are annually monitored for escapement of large fish. Coded-wire-tagging of wild Chinook salmon smolt occurred from 1977 to 1981, 1983, and from 1993 to present. Total escapement was estimated using mark–recapture (MR) studies conducted 1989 to 1990, 1995 to 1997, 1999 to 2010, 2014 to 2020, and 2022 to 2024. In all other years, escapements were estimated from expanded peak aerial survey index counts. Since 1989, escapements averaged 34,000 large fish; however, the recent 10-year average escapement of 13,770 fish and the recent 5-year average of 13,190 fish are substantially lower and have been below the escapement goal range for 8 out of the last 10 years (Table 2).

Harvest

Taku River Chinook salmon are harvested in marine waters in mixed stock sport fisheries, primarily in District 11 as well as in Icy Strait, Chatham Strait, and Lynn Canal (Figure 4); in commercial drift gillnet fisheries in District 11 and 15 (Figures 3 and 5); and in late winter and spring commercial troll fisheries primarily in the northern and central outside areas (Figures 6 and 7). This stock is also harvested in the Taku River. Taku River harvests include incidental catch in sockeye salmon personal use fisheries, and in Canadian commercial gillnet, assessment, recreational, and First Nation (FN) fisheries (Figure 1). Information from CWT recovery and GSI indicates the recent 10-year average (2014–2023) harvest rate on Taku River Chinook salmon is 14% (Table 2).

In 2005, 2006, 2009, and 2012, surplus production was identified for Taku River Chinook salmon allowing directed commercial and liberalized sport fisheries in terminal marine waters in District 11 and in the Canadian inriver commercial, recreational and FN fisheries. Total harvest rates during these years averaged 40%. With the 2017 preseason forecast below the escapement goal range, conservation measures were enacted in the U.S. and Canada that reduced the harvest rate to 20% (Table 2). As a result of further restrictions included in the 2018 and 2022 actions plans along with further restrictions in U.S. and Canadian fisheries due to low run size. The 2018 to 2023 harvest rate for Taku River Chinook salmon has averaged 9% (Table 3).

Harvests of Taku River Chinook salmon in the SEAK sport fishery occur primarily during the spring as mature adults return to spawn. The estimated sport harvest of this stock averaged 626 fish from 2011 to 2016. The average annual sport harvest from 2017 to 2023 was reduced to 142 fish in accordance with updated restrictions. These restrictions were implemented following preseason forecasts below the Taku River Chinook escapement goal range and because of action plans approved during the 2018 and 2022 meetings of the Alaska Board of Fisheries that provide measures to conserve King Salmon, Chilkat, and Taku river Chinook salmon.

Harvests of Taku River Chinook salmon in SEAK commercial fisheries have historically been highest in the troll fisheries (except in years when run strength provided for directed District 11 gillnet and liberalized sport fisheries). From 2011 to 2016, total troll harvests averaged 2,617 Taku River Chinook salmon annually; with conservation measures in place from 2017 through 2023, the annual troll harvest has averaged 310 fish. Commercial gillnet fishery harvests, predominantly from District 11, averaged 414 fish annually from 2011 to 2016; with conservation measures in place from 2017 through 2023, the annual gillnet harvest has averaged 119 fish.

Taku River Chinook salmon are incidentally harvested in a sockeye salmon personal use fishery that operates in the U.S. portion of the Taku River during the month of July. Beginning in 2017, opening of this fishery has been delayed up to 3 weeks to avoid the later portion of the historical Chinook salmon run. The 2011 to 2016 average personal use harvest was 30 fish and the average harvest from 2017 to 2023 was 9 fish.

Canadian inriver harvests of Taku River Chinook salmon averaged 2,255 fish from 2011 to 2016 and 66 fish from 2017 to 2023. Since 2018, retention of Chinook salmon in the commercial fishery has been prohibited and no harvest has been reported. In years without a directed Chinook salmon fishery under the PST, treaty language provides for a 1,400 fish assessment fishery to determine run strength in season. This fishery has not taken place since 2016. Recreational fishery harvests were reported as 105 fish annually between 1995 and 2015, 10 fish in 2016, and since 2017, annual regulations have stipulated nonretention of Chinook salmon in recreational fisheries. FN fishery

harvest averaged 96 fish from 2011 to 2016. Although not restricted by regulation, FN fishers have been asked to focus their harvests on sockeye *O. nerka* and coho *O. kisutch* salmon, and the FN harvest of Chinook salmon since 2017 has averaged 30 fish (Table 3).

ESCAPEMENT GOAL EVALUATION

The *Policy for Statewide Salmon Escapement Goals* (SSEGP; 5 AAC 39.223), adopted by the board in 2001, established the formal process for setting escapement goals. Prior to this the department followed its *Salmon Escapement Goal Policy* adopted in 1992 that established a formal process to set, evaluate, and modify existing escapement goals (Fried 1994). The SSEGP and the SSFP require the department to report on salmon stock status and escapement goals to the board on a regular basis, document and review existing salmon escapement goals, establish goals for stocks for which escapement can be reliably measured, and prepare scientific analyses with supporting data when goals are created, modified, or recommended for elimination.

KING SALMON RIVER

In 1981, the department established a peak index escapement goal for the King Salmon River of 200 large Chinook salmon. This goal was based on maximum survey counts of 200 spawners in 1957 and 211 spawners in 1973. In the mid-1980s, the goal was revised to 250 large spawners as enumerated through a weir across the lower river.

An escapement goal range for King Salmon River Chinook salmon was developed in 1997 with information on escapement, age composition, and harvests collected from 1991 to 1997 (McPherson and Clark 2001). Ten years of weir operations (1983–1992) provided the basis for estimating total escapement and age composition in other years. From 1971 to 1997, annual foot and aerial surveys were conducted to count peak numbers of large spawners. Large spawner abundance from 1971 to 1982 and 1993 to 1997 was estimated by using the average fraction counted from 1983 to 1992 (67.5%). The inriver return for each brood year was projected from the estimated number of large spawners each year coupled with age composition data. The number of jacks (age-1.2 fish) from 1971 to 1982 and 1993 to 1995 was estimated by using the average percent of jacks (22%) for the 1979 to 1986 broods (known from weir counts). Harvests were estimated from exploitation rates from nearby Crystal Lake Hatchery, applied to the estimated inriver returns of wild Chinook salmon for King Salmon River. From these data, total returns were calculated for 21 brood years (1971–1991), allowing spawner–recruit analysis and development of the BEG range of 120 to 240 large Chinook salmon (McPherson and Clark 2001).

TAKU RIVER

In 1981, ADF&G established an index goal of 9,000 fish in the Nakina River, the largest Chinook salmon producing tributary in the Taku River. This goal was based on the highest historical survey observed in 1952. The first system-wide goals were expressed in about 1985 as a range from 25,600 (U.S. estimate) to 30,000 (Canadian estimate) fish, and both estimates were based on professional judgment. In 1991, the PSC Transboundary Technical Committee (TTC) revisited the estimate and recommended an index goal of 13,200 fish counted in aerial surveys, which was adopted by the parties and implemented in 1992 (CTC 1992). This goal, and all prior Chinook salmon goals in the Taku River, were indices of escapement and based on limited data. By 1999, ADF&G and Canada Department of Fisheries and Oceans (DFO) cooperatively developed a new escapement goal range of 30,000 to 55,000 large spawners (not an index) in an analysis of adult and smolt production. The updated escapement goal range was reviewed and approved by the PSC

CTC (CTC 1999, 2005), PSC TTC, ADF&G, DFO, and the Pacific Scientific Advice and Review Committee (McPherson et al. 2000). In 2009, the current BEG range of 19,000 to 36,000 large Chinook salmon was established based on a spawner–recruit analysis and accepted both domestically by the board and bilaterally by the PSC (McPherson et al. 2009).

ESCAPEMENT GOAL FINDINGS

The department has reviewed salmon escapement goals for these systems every 3 years prior to the Southeast and Yakutat board meeting and recommended no changes to the King Salmon River since adoption in 2003 or Taku River Chinook salmon escapement goals since adoption in 1997 and 2010 (Geiger and McPherson 2004; DerHovanisian and Geiger 2005; DerHovanisian et al. 2011; Heinl et al. 2014; Heinl et al. 2017*;* McPherson et al. 2009).

STOCK OF CONCERN RECOMMENDATION

Escapements of Chinook salmon have fallen below the lower bound of the current BEG range for the King Salmon River in 3 of the past 5 years (2020–2024) and for the Taku River in 5 of the past 5 years (2019–2023). Recent inseason management actions implemented in the sport, commercial, subsistence, and personal use fisheries since 2012 have been effective at reducing harvest rates. In October 2018, the board designated Chilkat River and King Salmon River stocks in northern SEAK and the Unuk River stock in southern SEAK as stocks of management concern. In 2022, the board continued that designation and also designated the Taku, Stikine, and Chickamin rivers and Andrew Creek Chinook salmon as stocks of management concern. At the October 2024 board work session, the department recommended the board continue with the stock of concern designations for Taku, Stikine, and King Salmon rivers and Andrew Creek Chinook salmon stocks. The department also recommended the removal of stock of concern designations for the Chilkat, Unuk, and Chickamin rivers Chinook salmon stocks. The board adopted these recommendations and a draft action plan was developed for consideration at the 2025 Southeast Alaska Shellfish and Finfish meeting.

OUTLOOK

By December each year, the department produces preseason forecasts of total run for Situk, Chilkat, and Unuk rivers and terminal run forecasts for Taku and Stikine rivers in SEAK.

The preseason forecast for the terminal run of Taku River large Chinook salmon in 2025 is 40,000 fish, which is above the lower bound of the escapement goal range of 19,000 to 36,000 large fish.

The department does not produce preseason forecasts for the other 6 indicator stocks in the region, including the King Salmon River and Andrew Creek stocks, due to a lack of sibling model information and harvest contributions. However, continued poor Chinook salmon production throughout SEAK is expected into the near future.

HABITAT ASSESSMENT

KING SALMON RIVER

Situated within the Admiralty Island National Monument and the Kootznoowoo Wilderness Area—both of which provide habitat protection—the habitat in the King Salmon River watershed is considered pristine. There are no freshwater or riparian habitat-related concerns identified for this stock and there have been no documented timber or mining activities in the watershed. This

island watershed drains an area of approximately 108 km^2 and contains 95 km of stream habitat of which about 11 km is designated anadromous (Figure 1).

TAKU RIVER

The Taku River originates in British Columbia and drains over 17,000 km^2 before its terminus in Taku Inlet, with almost all the drainage accessible to anadromous salmon. The 2 main tributaries are the Nakina and Inklin rivers. The Inklin River drains a larger area and is comprised of several large tributaries that provide Chinook salmon spawning and rearing habitat. Most of the tributaries are clear or slightly occluded by glacial flour, especially in the lower Nakina and Sheslay rivers and Kowatua Creek. Escapement is monitored in 5 spawning tributaries: the Nakina, Nahlin, and Dudidontu rivers and Kowatua and Tatsatua creeks (Figure 1). Although road access once existed in the far upper reaches of the Sheslay River to allow access to the Muddy Lake mine, that road has been decommissioned and the Taku River is the only major river on the Pacific coast of North America that lacks road access to any of its tributaries. Mining activities have occurred in various areas in the Canadian portions of the drainage and exploratory work is ongoing in the Sheslay River drainage, among others. In the lower river, the Tulsequah Chief and Big Bull mine operations near the U.S./Canada border appear dormant and abandoned. The Tulsequah Chief mine site continues releasing small amounts of acid mine drainage into the Tulsequah River about 10 km upstream of the confluence with the Taku River. Canagold Resources Ltd. is actively pursuing to reopen the New Polaris mine which is located on the west bank of the Tulsequah River roughly 5 kilometers downstream of the Tulsequah Chief mine. Canagold announced on October 4, 2024, that the British Columbia Environmental Assessment Office has recommended that New Polaris proceed to the Process Planning Phase of the environmental assessment.

FISHERY MANAGEMENT OVERVIEW AND BACKGROUND

PACIFIC SALMON TREATY

Taku River Chinook salmon are managed through provisions of Chapter 1 of the PST. The department manages the Taku River stock of Chinook salmon in accordance with the PST and as required by the *United States–Canada Salmon Management Plan* (5 AAC 33.361). Per the treaty, annual terminal run size and terminal harvest estimates of the Taku River stock are developed bilaterally from inriver escapement surveys, MR projects, and GSI analyses. The PST directs both countries to take actions necessary to ensure that escapement objectives are achieved. Paragraph 4 of Chapter 1 outlines steps to be taken by both countries if the escapement goal is not achieved in 3 consecutive years. Management plans in Canadian and Alaska terminal fisheries are reviewed prior to the season and resultant harvest and escapement figures are reviewed postseason by the Transboundary River Panel. Management actions are predicated on preseason forecasts of terminal run abundance and are evaluated weekly based on inseason estimates of run size. Management actions in the U.S. terminal District 11 and Canadian Taku River fisheries are agreed upon annually prior to the season. These management actions are then included in the PSC TTC Salmon Management and Enhancement Plans for the Stikine, Taku and Alsek rivers and the Southeast Alaska Drift Gillnet Management Plan developed prior to each fishing season.

The preseason forecast serves as the principal run size estimator until inseason run projections become available (typically by statistical week [SW] 21). Inseason projections are generated by a MR estimate. This estimate is derived from from fish marked during a tangle net capture near the Wright River and at fish wheels operated at Canyon Island; these fish are subsequently recaptured in an assessment fishery above the U.S./Canada border (Figure 1). If available, inseason

MR estimates are used as the principal run size estimator. If insufficient data are available to develop a valid MR estimate, the preseason forecast is utilized to inform management decisions until sufficient data to generate an estimate of run size are obtained.

In 2016, the preseason forecast suggested the Taku River Chinook salmon run would meet the escapement goal; as a result, the inriver Chinook salmon assessment fishery in Canada, designed to operate as a recapture event for the stock assessment project, operated in SWs 19–23. However, inseason MR results indicated the run would be insufficient to achieve the escapement goal, so the last 2 weeks of the assessment fishery in SWs 24–25 were cancelled. In addition, to conserve Taku River Chinook salmon, area and gear restrictions were imposed in the first week of the District 11 directed sockeye salmon commercial drift gillnet fishery in SW 26.

From 2017 to 2024, preseason forecasts indicated the annual Taku River Chinook salmon runs would be below the escapement goal range, triggering management actions in U.S. and Canadian fisheries per the PST. These actions included delaying the start of the commercial fishery by up to 2 weeks, implementing nonretention in commercial and recreational fisheries, applying mesh size restrictions in the commercial fishery, and encouraging voluntary reduction in the FN fishery. In addition, the inriver Chinook salmon assessment fishery conducted in Canada as part of the MR program did not operate. In SEAK, additional management actions included time, area, and mesh size restrictions in the District 11 commercial drift gillnet fishery, nonretention of Chinook salmon in the sport fishery through the end of June, nonretention of Chinook salmon in commercial troll fisheries through mid-July, and delayed openings of the Taku River personal use sockeye salmon fishery by up to 3 weeks.

SPORT FISHERIES

King Salmon River

King Salmon River Chinook salmon are harvested incidentally in SEAK marine waters. Whereas there is no CWT information available for the King Salmon River stock of Chinook salmon, harvest of Taku, Chilkat and Stikine rivers and Andrew Creek stocks of Chinook salmon can serve as indicators for when and where King Salmon River fish are harvested. This parallel is appropriate because the King Salmon River is geographically close to these systems and likely shares partial overlap of patterns in migration timing and rearing. The Juneau area marine boat sport fishery targets Chinook salmon primarily from April to June, with continued effort the remainder of the year. In recent years, the bulk of the Juneau area harvests have consisted of Alaska hatchery fish released from nearby Macaulay Salmon Hatchery; however, harvest of Taku River Chinook salmon can be substantial and in larger runs can make up the bulk of the harvest. Regulations for the Juneau area sport fishery are set by EO as directed by the *Southeast Alaska King Salmon Management Plan* (5 AAC 47.055), special provisions for District 11 (5 AAC 47.021[e]), and when the Macaulay Salmon Hatchery broodstock needs are met, the designated terminal harvest area (THA) in Juneau may be liberalized.

Taku River

The Chinook salmon sport fishery in the salt water near the Taku River is managed based on whether an allowable catch is available as outlined in Chapter 2 of the PST. These special provisions for the waters of District 11 prescribe sport regulations based on the preseason forecast and inseason projections of total terminal run relative to the Taku River escapement goal of 19,000 to 36,000 large fish. During years when an allowable catch is available, sport fishing regulations

are liberalized with increased bag, possession, and annual limits, as well as an allowance for the use of 2 rods. During years with no allowable catch, upper Taku Inlet is closed from April 16 to June 14, bag and possession limits may be reduced, and additional time or area closures in terminal areas or migration corridors may be implemented. Typically, the designated hatchery sport harvest area (DHSHA) around Macaulay Salmon Hatchery and remote release sites in Lena Cove, Auke Bay, and Fritz Cove (Fish Creek) are open June 1 to August 31, with a bag and possession limit of 4 fish of any size, which does not count toward the nonresident annual limit. If lack of hatchery broodstock concerns arise, the (DHSHA) opening may be delayed, or a sport fishing closure may be implemented near the hatchery.

Past Sport Fishery Management Actions

Restrictive management action has been taken in the sport fishery to protect Chilkat, King Salmon, and Taku rivers Chinook salmon stocks since 2017. Increasingly restrictive management measures were implemented in 2018 in accordance with the Chilkat River and King Salmon River King Salmon Stock Status and Action Plan and continued in the 2022 Northern Southeast Alaska Chinook Salmon Stock Status and Action Plan with minor revisions. In the majority of the inside waters of Southeast Alaska, the sport fishery has been closed to retention between April 1 and June 15 to protect Chinook salmon along migration corridors as they return to the Taku, King Salmon and Chilkat rivers. In addition, a longer period of nonretention has been implemented in the terminal area of the Taku River (Taku Inlet) until June 30, and the terminal area of the King Salmon River (Seymour Canal) is closed to fishing between April 1 and June 30.

COMMERCIAL FISHERIES

Drift Gillnet Fisheries

King Salmon River

Rearing areas, returning adult migration routes, and run timing for King Salmon River Chinook salmon are unknown but conservative management actions in District 11 and District 15 drift gillnet fisheries to conserve Taku and Chilkat rivers stocks of Chinook salmon very likely help minimize impacts on King Salmon River Chinook salmon.

Taku River

Taku River Chinook salmon, along with Chinook salmon stocks from the Situk, Alsek, and Stikine rivers, rear outside of SEAK and returning adults begin to arrive in SEAK waters by mid-March. The District 11 commercial drift gillnet fishery opens on the third Sunday in June and by this time, on average, over 80% of the Taku River Chinook salmon run has entered the river. Restrictions designed to minimize the harvest of Taku River Chinook salmon are most effective in the initial weeks of the drift gillnet season. Restrictions in time, area, and gear are the most restrictive at the start of the District 11 drift gillnet season and are progressively reduced through mid-July. Restrictions in the District 11 commercial drift gillnet areas designed to minimize the harvest of Taku River Chinook salmon also reduces the incidental harvest of King Salmon River Chinook salmon.

Troll Fisheries

The commercial troll fishery in Southeast Alaska (Figure 6) occurs in State of Alaska waters and in the Federal Exclusive Economic Zone (EEZ) east of the longitude of Cape Suckling (5 AAC 29.010 and 5 AAC 29.020). All other waters of Alaska are closed to commercial trolling.

There are 3 commercial troll seasons in SEAK: winter, spring, and summer. The winter troll fishery is managed for a guideline harvest level (GHL) of 45,000 Chinook salmon not produced in an Alaska hatchery (this includes wild fish as well as those produced in hatcheries outside Alaska). The guideline harvest range for the winter troll fishery is 43,000−47,000 *total* Chinook salmon harvested, regardless of origin (this includes Alaska hatchery-produced fish). Under the provisions of each of the SEAK wild Chinook salmon action plans, the winter troll fishery is conducted from October 11 through March 15—closing earlier than the allowable April 30 regulatory time frame. The action plans also stipulate, however, that management measures could be relaxed in specific areas or during specific time periods if updated stock composition and harvest data indicates restrictions are no longer needed to ensure the BEG is met. Since 2022, winter troll harvest opportunities under these conditions were identified between March 16 and April 15. The action plans also specified that following the closure of the winter troll fishery and prior to June 30, spring troll fisheries may open by EO to target Alaska hatchery-produced Chinook and chum salmon. These openings would be limited to outer coastal areas or near hatcheries, hatchery release sites, and in areas of low SEAK wild Chinook salmon abundance (Figure 7). Terminal area fisheries occur adjacent to hatcheries or at remote release sites. Most of the annual troll Chinook salmon harvest is taken during the general summer troll fishery beginning July 1 when salmon may be taken throughout most of SEAK, including the outside waters of the EEZ. The summer troll Chinook salmon harvest is divided into 2 retention periods. The first retention period targets 70% of the remaining annual troll Chinook salmon allocation, after subtracting the winter and spring troll harvests of Chinook salmon not produced in an Alaska hatchery. Following the first retention period, any remaining portion of the annual troll allocation is harvested in a second Chinook salmon retention period, which typically occurs in mid-August, and follows any closure of the troll fishery for coho salmon conservation.

Commercial troll fishery management decisions that potentially result in the lowered harvests of Chilkat, Taku, and King Salmon rivers stocks of Chinook salmon include reduced time (closures, delayed openings) and area. Both CWT and GSI analysis indicate SEAK wild Chinook salmon stocks are encountered at increasing rates in SEAK fisheries beginning in late March and early April. Select area closures of the late winter troll fishery from mid-March through April, and spring troll fisheries in May and June, are designed to reduce the harvests of these fish during the peak migration period. Additional actions such as delaying the spring troll directed chum fishery until mid-June and limiting the area open to the summer troll fishery in July (e.g., in northern Chilkat Inlet to protect Chilkat River Chinook salmon) further reduces harvests of SEAK wild Chinook salmon.

Purse Seine Fishery

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 and 6-D only), 7, 9, 10, 11 (Sections 11-A and 11-D only), 12, 13, and 14. Purse seine fishing is also allowed in hatchery THAs at Neets Bay, Kendrick Bay, Anita Bay, Southeast Cove, Thomas Bay, Deep Inlet, and Hidden Falls (Figure 8). Although the areas specified above are

designated purse seine fishing areas, specific open areas and fishing times are established in season by EO.

Chinook salmon are not targeted in traditional purse seine fisheries but are harvested incidentally. Chinook salmon less than 28 inches may be retained but not sold. Chinook salmon greater than 28 inches may be retained only during periods established by EO. Purse seine fisheries can occur in northern Chatham Strait (District 12) and eastern Icy Strait (District 14) beginning in late June and early July, Frederick Sound (District 10) in early July, near the end or after the Chinook salmon runs to Chilkat, Taku, and King Salmon rivers have migrated through. Regionwide, Chinook salmon retention periods typically do not begin until the third or fourth week of July (SW 30 or 31).

Past Commercial Fishery Management Actions

Commercial salmon fisheries are coordinated regionally by gear type and are opened and closed by EO. Fishery managers have adjusted time and area (all fisheries), implemented gear stipulations (drift gillnet), and enacted nonretention (troll and seine fisheries) by EO in response to Chinook salmon conservation concerns. Management actions taken in the District 11 drift gillnet fishery (Figure 5) to protect Chinook salmon returning to the Taku River have also provided protection to King Salmon River Chinook salmon given the proximity of the 2 rivers (Figure 3). Extensive management actions were taken in all fisheries prior to 2018. These actions were included in the 2018 Chilkat and King Salmon rivers king salmon action plan and were further refined in the 2022 Northern Southeast Alaska Chinook Salmon Stock Status and Action Plan. Below is an outline of management measures outlined in the 2018 and 2022 action plans and implemented for the commercial net and troll fisheries (Figures 5–8), reducing harvests of Chinook salmon returning to the Chilkat, King Salmon, and Taku rivers from 2018 to 2024.

Drift Gillnet Fisheries

The District 11 drift gillnet fishery was most recently managed in accordance with the 2022 Northern Southeast Alaska Chinook Salmon Stock Status and Action Plan, and under provisions of annual management plans produced by the TTC and approved by the Transboundary Panel, as directed by Chapter 1 of the PST (TTC 2024). Management measures taken in District 11 from 2022 through 2024 included:

- Area for the initial opening (third Sunday in June) was reduced to the SE portion of Taku Inlet, with the north line of the open area shifted north incrementally over subsequent openings (Figure 5).
- The initial opening was held to 2 days total duration and next 2 openings started with 2 days.
- A 6-inch maximum mesh size restriction and night closures were implemented during the first 2 openings.

Purse Seine

The purse seine fishery in northern Southeast Alaska begins in THA fisheries in mid to late June; traditional common property fisheries typically do not begin in earnest until mid to late July (SW 28). Northern Southeast Inside pink salmon fisheries were largely closed from 2018 to 2020, 2022, and 2024 due to poor pink salmon runs. Management measures taken in the 2018 to 2024 regionwide purse seine fishery included:

- The purse seine fishery was closed to retention of Chinook salmon throughout the 2018 season; through SW 29 in 2019 and 2024; through SW 30 in 2022 and 2023; and through SW 31 in 2020 and 2021.

Troll Fishery

Since 2022, the troll fishery in northern Southeast Alaska has been managed under provisions of the 2022 Northern Southeast Alaska Chinook Salmon Stock Status and Action Plan. In addition, the troll fishery is managed per Chapter 3 of the PST, which requires that SEAK fisheries are managed to achieve escapement objectives for SEAK and Transboundary River stocks. Additionally, the troll fisheries are managed pursuant to the *United States–Canada Salmon Management Plan* (5 AAC 33.361) and the *Policy for the management of sustainable salmon fisheries* (5 AAC 39.222). These guidelines ensure that the impacts of fishing on salmon escapement are assessed and considered in management decisions, and that necessary conservation restrictions may be imposed in order to achieve escapement, rebuild, or in some other way conserve a specific salmon stock or group of stocks. The combination of actions taken from 2022 to 2024 were as follows:

2022–2024

- Notwithstanding any remaining portion of the seasonal GHL, all inside waters of the SEAK winter troll fishery were closed by EO on March 15, 6 weeks prior to the regulatory closure. The waters of Districts 3−5, 9, 13, 14 (limited outer waters in 2022), and 183 were opened from April 3 through April 30, in 2022, from March 16 through April 15 in 2023, and from March 16 through March 31 in 2024.
- Beginning May 1, spring troll Chinook salmon fisheries in northern SEAK were reduced to portions of the outer coast located in Districts 13 and 183, with all other districts remaining closed through June 30.
- All THA openings in northern Southeast were delayed until June 1.
- The Districts 9, 10, 12, and 14 enhanced chum salmon fishery openings were delayed until June 15 and closed to the retention of Chinook salmon.
- Lynn Canal–Chilkat Inlet in Section 15-A north of the latitude of Sherman Rock was closed to commercial trolling from July 1 to December 31.

SUBSISTENCE FISHERIES

The King Salmon River and nearby drainages are located within the Juneau Nonsubsistence Area (5 AAC 99.015[a][2]) and there are no customary and traditional use findings in the marine waters of Seymour Canal, therefore there are no subsistence fisheries on this stock.

The Taku River and its tributaries are located within the Juneau Nonsubsistence Area, therefore there are no state subsistence fisheries on this stock. A federal subsistence fishery structured identically to the state personal use fishery on the Taku River was opened in 2024 for the first time and no permits were issued. This fishery is subject to annual approval by the PSC.

Past Subsistence Fisheries Management Actions

No actions taken, as no state subsistence fisheries occur on these stocks.

PERSONAL USE FISHERIES

A personal use sockeye salmon fishery occurs in the U.S. waters of the Taku River. Up to 2 incidentally caught Chinook salmon may be retained while personal use fishing for sockeye salmon. The season opens by regulation July 1 to July 31. Reported harvests indicate most of the Chinook salmon harvest occurs in the first 10 days of the fishery. Taku River personal use salmon fisheries are managed under provisions of annual management plans produced by the TTC and approved by the Transboundary Panel, as directed by Chapter 1 of the PST. Since 2017, the start of the fishery has been delayed by up to 3 weeks by EO to reduce the incidental harvest of Taku River Chinook salmon.

There are no personal use fisheries that target King Salmon River salmon.

ACTION PLAN MANAGEMENT OPTIONS FOR ADDRESSING STOCKS OF CONCERN

ACTION PLAN GOAL

The primary goal of this action plan is to rebuild Chinook salmon runs in the King Salmon and Taku rivers to consistently achieve escapement goals and provide historical levels of fishing opportunity.

ACTION PLAN ACTIONS

A draft action plan (Record Copy 4) was presented to the Alaska Board of Fisheries at the 2025 Southeast Alaska and Yakutat Finfish and Shellfish meeting in Ketchikan. The draft plan contained options for management actions in each fishery: commercial, sport, personal use, and subsistence. The following actions are the board-adopted actions.

Action 1: Sport Fishery

Objective: Continue to manage per actions listed in the 2022 action plan for King Salmon and Taku rivers Chinook salmon stocks.

Specific Action to Implement the Objective: Use department EO authority to implement conservative Chinook salmon regulations in Districts 9, 10, 11, 12, 13, and 14, that are nearly identical to those implemented in 2022 to 2024 as written in the *Northern Southeast Alaska King Salmon Stock Status and Action Plan, 2022*. Actions specified for District 15 have been removed because Chilkat River is no longer designated as a stock of management concern. During the 2025 Southeast Alaska and Yakutat Finfish and Shellfish meeting, the board adopted Proposal 125, directing the department to add Section 14-A into the area where nonretention is implemented in the sport fishery between April 1 through June 14. This action has been incorporated into this adopted action plan. The sport fishing closure in Section 11-D is also updated to extend the closure through July 31 to provide additional protection for Chinook returning to King Salmon River. Regional Chinook salmon regulations established under the *Southeast Alaska King Salmon Management Plan* (5 AAC 47.055) will apply in the restricted areas during the remainder of the year when fishing is allowed. The management actions for the respective districts and sections are described below and depicted in Figure 4.

- District 14: Retention of Chinook salmon prohibited April 1 through June 14.

- District 13: In the waters of Section 13-C southeast of a line from Nismeni Point to a point on the Chichagof Island shoreline at 57°35.59' N. lat., 135°22.33' W. long., retention of Chinook salmon prohibited April 1 through June 14.
- District 12: Retention of Chinook salmon prohibited April 1 through June 14.
- District 11: Sections 11-A, 11-B, and 11-C retention of Chinook salmon prohibited April 1 through June 14; Section 11-D closed to Chinook salmon fishing April 1 through July 31. The marine waters of Taku Inlet north of a line from Point Bishop to Point Greely, retention of Chinook salmon prohibited April 1 through June 30.
- District 10: Retention of Chinook salmon prohibited April 1 to June 14.
- District 9: In the waters of District 9 north of line between Point Ellis and Patterson Point, retention of Chinook salmon prohibited April 1 through June 14.
- Hatchery Sport Harvest Area (THA) near Juneau: If the surplus hatchery Chinook salmon return to the Macaulay Hatchery is in excess of broodstock needs, the THA near Juneau will be liberalized with a bag and possession limit of 4 Chinook salmon any size with no annual limit from June 1 through August 31.

Action 2: Commercial Fisheries

Objective: Improve management actions, remove unneeded actions listed in the 2022 Northern Southeast Alaska Chinook salmon action plan, and continue to manage the District 11 commercial fisheries per annual management plans produced by the TTC under provisions of the PST.

Specific Action to Implement the Objective:

- District 11 drift gillnet fishery: Continue to manage the District 11 drift gillnet fishery according to provisions of annual management plans produced by the TTC and approved by the Transboundary Rivers Panel, as directed by Chapter 1 of the PST. Management actions per the annual management plan include but are not limited to: restricting the initial opening to 2 days total and starting the next 2 openings at 2 days per week; implementing area restrictions in Taku Inlet for the first 3 openings; implementing a 6-inch maximum mesh size restriction and night closures (between 10:00 P.M. and 4:00 A.M.) through the first 2 openings; and keeping Section 11-C closed through the second week of July.

- Troll fisheries: Manage the troll fishery under provisions of the PST and with the following management actions:
  - Using EO authority, close the winter troll fishery in all inside waters of Southeast and Yakutat beginning March 16 while continuing to evaluate harvest opportunities from March 16 and through April 30 in the waters of Districts 3−5, 9, 13, 14, and 183.
  - Using EO authority, beginning May 1 and through June 30, reduce spring troll Chinook salmon fisheries in northern Southeast to areas of the outer coast near hatcheries, hatchery release sites, or areas with low proportion harvest of wild SEAK Chinook salmon located in Districts 113 and 183, with all other districts remaining closed.
  - Using EO authority, delay opening all THAs in northern SEAK until June 1.
  - Using EO authority, delay the Districts 109, 110, 112, and 114 hatchery chum salmon fishery openings until June 15 and close to the retention of Chinook salmon.
  - Using EO authority, beginning July 1 and through July 31, close all waters of Section 11-D to commercial trolling.

- Purse seine fishery: Using EO authority, implement nonretention of Chinook salmon until at least the third week of July in traditional fisheries and in THAs that do not have hatchery Chinook salmon runs.

Action 3: Subsistence Fishery

None needed. Both the King Salmon and Taku rivers are within the Juneau Nonsubsistence Area.

Action 4: Personal Use Fishery

Continue implementing the following management action that began in 2017:

- Manage per the annual bilateral Transboundary River Management Plan of the PST. Actions taken to reduce incidental harvest of Chinook salmon include delaying the start of the month-long personal use fishery by up to 3 weeks.

CONDITIONS FOR REDUCING RESTRICTIONS OR DELISTING A STOCK OF CONCERN

The department will emphasize meeting condition 1 below before considering the other conditions.

1. If the lower bound of the BEG range is met or exceeded in 3 consecutive years or is met in 4 out of 6 consecutive years, the department may recommend removing the stock as a stock of "management concern" at the first Southeast and Yakutat board meeting after this condition is met.
2. If updated stock composition and harvest data indicates areas or times where or when restrictions are no longer needed to ensure the BEG is met management measures could be relaxed in specific areas or during specific time periods.
3. In the event the upper bound of the BEG range is met or exceeded in 2 consecutive years, management restrictions may be relaxed or set aside.
4. Should the TTC determine that a harvestable surplus of Taku River Chinook salmon is available, directed Chinook salmon fisheries in District 11 may occur pursuant to the annual Transboundary River management plan under provisions of the PST.

Stock status, action plan performance (including information on harvest rate, distribution, and timing in commercial fisheries), and escapement goal review will be updated in a report to the board at the 2028 Southeast and Yakutat meeting.

CURRENT RESEARCH PROJECTS

KING SALMON RIVER KING SALMON

The department has conducted annual assessments of Chinook salmon escapement in the King Salmon River since 1971, which included foot or helicopter counts from 1971 to 1982, adult weir counts from 1983 to 1992 (McPherson and Clark 2001), foot and helicopter counts from 1993 to 2011, and finally standardized foot surveys since 2012. Several research programs have been and are being conducted to gather detailed information about this stock:

1. The coastwide Chinook salmon genetic baseline includes King Salmon River Chinook salmon (Seeb et al. 2007).
2. Standardized aerial and foot escapement surveys have been conducted annually on King Salmon River Chinook salmon since 1975 (Richards et al. 2018).

3. Age, sex, and length composition, CWT and escapement sampling have been conducted annually on King Salmon River Chinook salmon since 2003 (Richards et al. 2018).
4. The current marine harvest sampling of commercial and sport catch cannot account for the harvest of King Salmon River Chinook salmon. Instead, non-terminal recoveries of coded-wire-tagged fish from nearby Crystal Lake hatchery are used as surrogates to estimate marine harvest and exploitation (CTC 2023).

TAKU RIVER CHINOOK SALMON

The department has conducted extensive research and monitoring projects in concert with Taku River Tlingit First Nation and Department of Fisheries and Ocean Canada on Taku River Chinook salmon. From 1973 to present, standardized aerial survey counts were conducted on 5 clearwater tributaries in the upper Taku River drainage. Radiotelemetry studies were conducted in 1989 and 1990, and 2015 to 2022. Wild smolt were CWT-tagged from 1977 to 1981, 1983, and from 1993 to present. Total escapement was estimated from MR studies conducted in 1989 and 1990, 1995 to 1997, 1999 to 2010, and 2014 to 2020, and 2022 to present. In all other years, escapements were estimated from expanded helicopter survey index counts. The Taku River Chinook salmon stock is an escapement and exploitation rate indicator stock of the CTC of the PSC. Requirements in the PST include producing the full suite of stock assessment data, including smolt production, marine survival, harvest and exploitation rates, estimates of escapement, and escapement age-sex-length composition. The following research programs have been and are being conducted to gather detailed information about Taku River Chinook salmon:

1. The coastwide Chinook salmon genetic baseline includes Taku River Chinook salmon (Seeb et al. 2007).
2. MR studies to estimate total escapement of Taku River Chinook salmon were conducted in 1989 and 1990, 1995 to 1997, 1999 to 2010, and have been conducted annually from 2014–2020, and 2022 to present (Williams et al. 2023).
3. CWT studies were conducted in 1977 to 1981 and annually since 1993 (Williams et al. 2023).
4. Age, sex, and length composition of escapements have been conducted annually since 1991 (Williams et al. 2023).
5. Marine harvest sampling of commercial and sport fisheries is conducted by the department annually throughout SEAK. These programs include CWT and genetic sampling with 20% minimum sample rate goal and various studies designed to estimate catch, harvest, and fishing effort and biological parameters such as age, sex, and size (Reynolds-Manney et al. 2020; Jaenicke et al. 2024).

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TABLES AND FIGURES

Table 1.–Escapement of large (≥ age 5) Chinook salmon in the King Salmon River, 2015–2024.

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2020–24 Average[b]	2015–24 Average[c]
Escapement[a]	50	149	85	30	27	100	134	123	68	85	102	85

[a] The BEG range for King Salmon River Chinook salmon is 120 to 240 large Chinook salmon. Gray cells in this row indicate escapements below the lower bound of the BEG.

[b] 2020 to 2024.

[c] 2015 to 2024.

Table 2.–Escapement, harvest, and total run of large (≥ age 5) Chinook salmon in the Taku River, 2014–2023.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2019–23 Average[d]	2014–23 Average[e]
Escapement[a]	23,532	23,567	9,177	8,214	7,271	11,558	15,593	11,341	12,722	14,755	13,194	13,773
Harvest	5,755	5,297	3,758	2,706	1,777	421	1,145	846	1,056	1,215	937	2,398
Total run	29,287	28,864	12,935	10,920	9,048	11,979	16,738	12,187	13,778	15,970	14,130	16,171
Harvest rate												
Troll winter	0.01	0.01	0	0.04	0	0	0	0	0.03	0.03	0.01	0.01
Troll spring	0.06	0.03	0.10	0.01	0	0	0.01	0.01	<0.01	0.01	<0.01	0.02
Troll summer R1[b]	0	0.01	0	0	0	0	0	0.02	0.01	0	<0.01	<0.01
Troll summer R2[b]	0	0	0	0	0	0	0	0	0	0	0	0
Troll all	0.07	0.05	0.10	0.05	0	0	0.01	0.02	0.04	0.04	0.02	0.04
Sport NW		0.01	0	0	0	0	0	0	0	0.02	<0.01	<0.01
Sport terminal	0.03	0.02	0.05	<0.01	<0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Sport all	0.03	0.03	0.05	<0.01	<0.01	0.01	0.01	0.01	0.01	0.03	0.01	0.02
Net outside	0	0.01	0	0.01	0	0.02	<0.01	0.01	0.01	<0.01	0.01	0.01
Net terminal D11	0.02	0.01	0.01	0.01	<0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Net all	0.02	0.02	0.01	0.02	<0.01	0.03	0.02	0.02	0.01	0.01	0.02	0.02
Outside SEAK[c]	0	0	0	0.15	0.19	0	0.03	0.01	<0.01	0	0.01	0.04
Canada commercial	0.04	0.03	0.04	0.02	0	0	0	0	0	0	0	0.01
Canada sport	<0.01	<0.01	<0.01	0	0	0	0	0	0	0	0	<0.01
Canada Aboriginal	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Assessment	0.04	0.05	0.08	0	0	0	0	0	0	0	0	0.02
Canada all	0.08	0.08	0.13	0.02	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	0.03
Total	0.20	0.18	0.29	0.25	0.20	0.04	0.07	0.07	0.08	0.08	0.07	0.14

Note: harvest includes some age 4 fish.

[a] The BEG range for Taku River Chinook salmon is 19,000 to 36,000 large fish. Gray cells in this row indicate escapements below the lower bound of the BEG.

[b] Troll Summer retention period 1 (R1) occurs in July; Troll Summer R2 occurs from August through September.

[c] Outside Southeast Alaska Net includes recoveries in trawl fisheries in other regions of Alaska (i.e. Gulf of Alaska) and drift gillnet recoveries from Cordova.

[d] 2019 to 2023.

[e] 2014 to 2023.

Table 3.–Harvest by fishery of large (≥ age 5) Taku River Chinook salmon, 2014–2023.

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2019–23 Average	2014–23 Average
Troll winter	291	417	0	438	0	0	0	0	527	488	203	215
Troll spring	1,672	854	1,304	88	0	0	113	85	39	98	67	393
Troll summer R1[a]	0	271	0	0	0	0	0	201	94	0	59	57
Troll summer R2[a]	0	0	0	0	0	0	0	0	0	0	0	0
Troll All	1,963	1,542	1,304	527	0	0	113	286	660	586	329	665
Sport NW	0	311	0	0	0	0	0	0	0	301	60	61
Sport terminal D11	810	463	635	34	9	94	117	176	142	120	130	260
Sport all	810	774	635	34	9	94	117	176	142	422	190	321
Outside D11 gillnet	0	213	0	125	0	181	78	75	87	31	90	79
D11 gillnet	489	292	159	143	31	124	189	151	54	141	132	177
Net all	489	505	159	268	31	306	267	226	141	172	222	256
Personal use	21	29	30	1	11	11	17	15	15	10	14	17
Outside SEAK[b]	0	0	0	1,626	1,719	0	537	104	65	0	141	405
U.S. all	3,283	2,850	2,128	2,456	1,770	411	1,051	806	1,023	1,190	896	1,697
Canada commercial	1,041	868	508	246	0	0	0	0	0	0	0	242
Canada recreational	105	105	10	0	0	0	0	0	0	0	0	20
Canada Aboriginal	96	117	91	4	7	10	94	40	33	25	40	51
Assessment	1,230	1,357	1,021	0	0	0	0	0	0	0	0	328
Canada all	2,472	2,447	1,630	250	7	10	94	40	33	25	40	701
Total	5,755	5,297	3,758	2,706	1,777	421	1,145	846	1,056	1,215	937	2,398

Note: harvest includes some age 4 fish.

[a] Troll Summer retention period (R1) occurs in July; Troll Summer (R2) occurs from August through September.

[b] Outside Southeast Alaska Net includes recoveries in trawl fisheries in other regions of Alaska (i.e. Gulf of Alaska) and drift gillnet recoveries from Cordova.

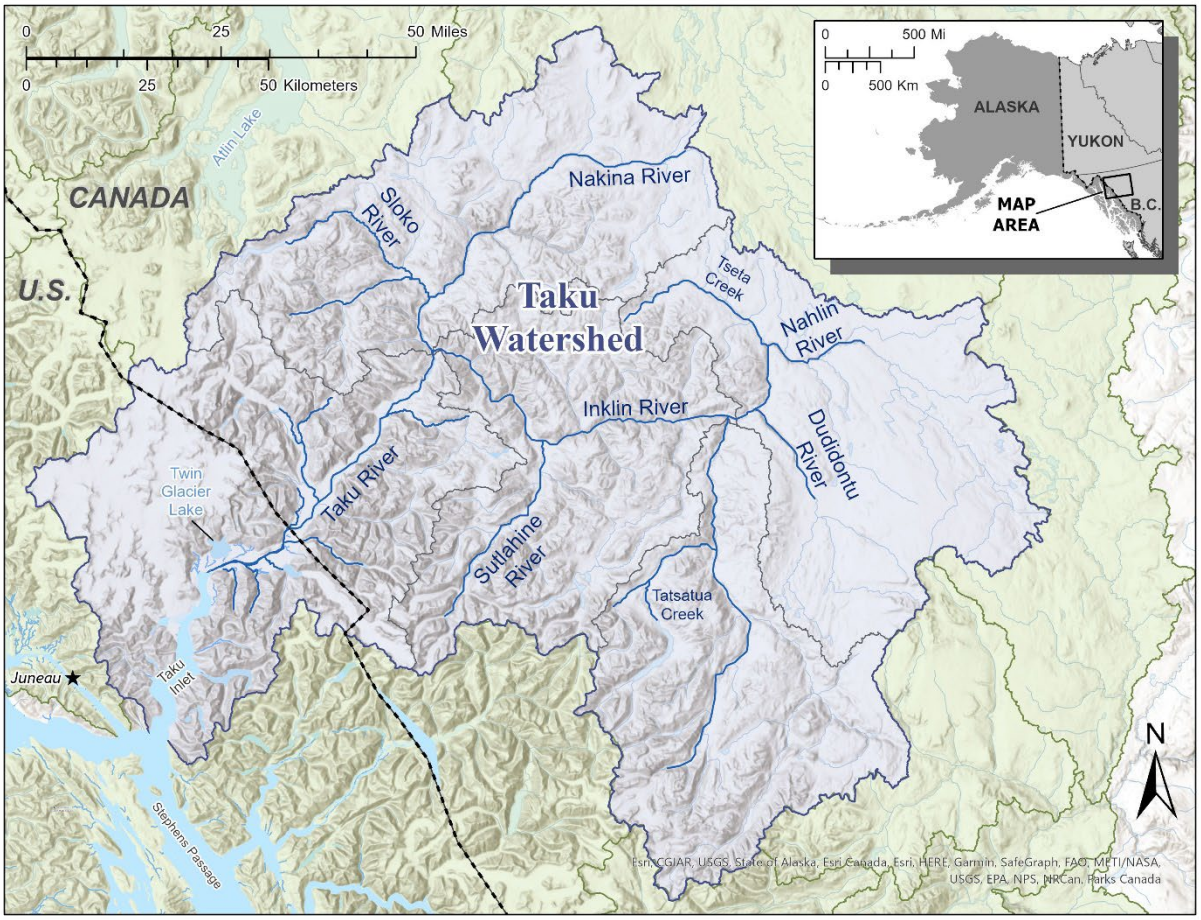

Figure 1.–Map of the Taku River watershed including the primary spawning tributaries in the Nakina, Nahlin, and Dudidontu rivers and Kowatua and Tatsatua creeks.

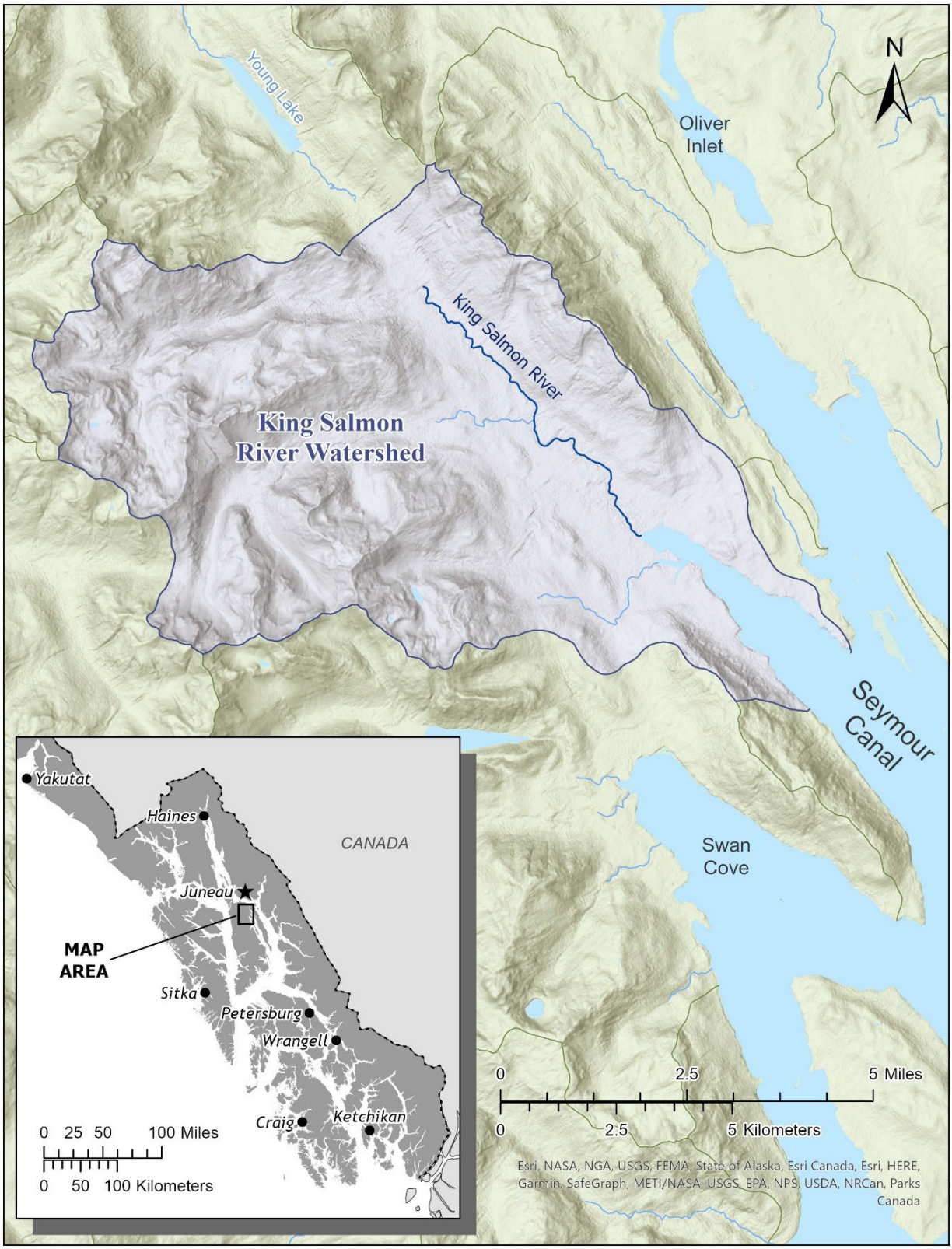

Figure 2.–Map of the King Salmon River watershed.

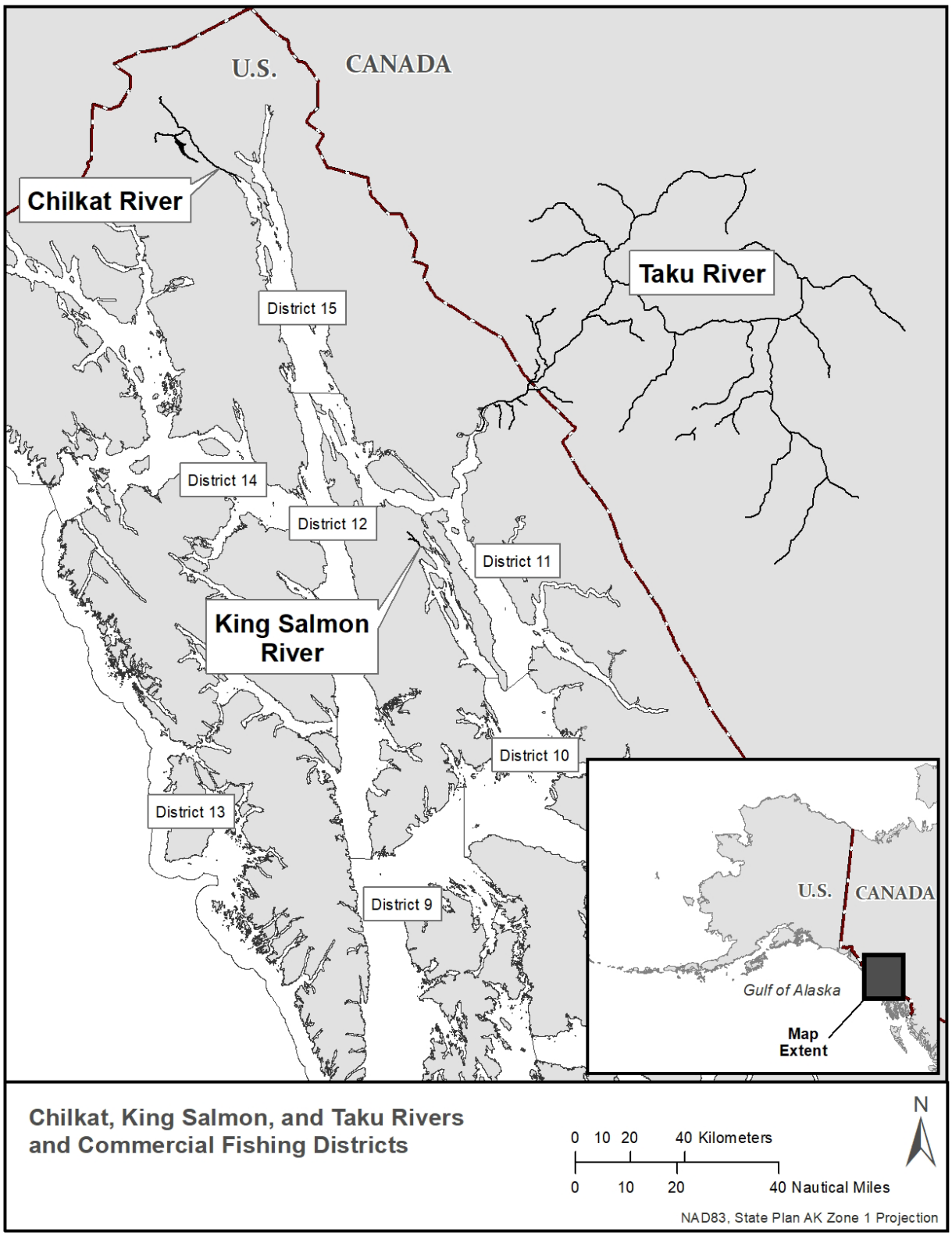

Figure 3.–Map showing the locations of Chilkat, King Salmon, and Taku rivers and nearby fishing districts in northern Southeast Alaska.

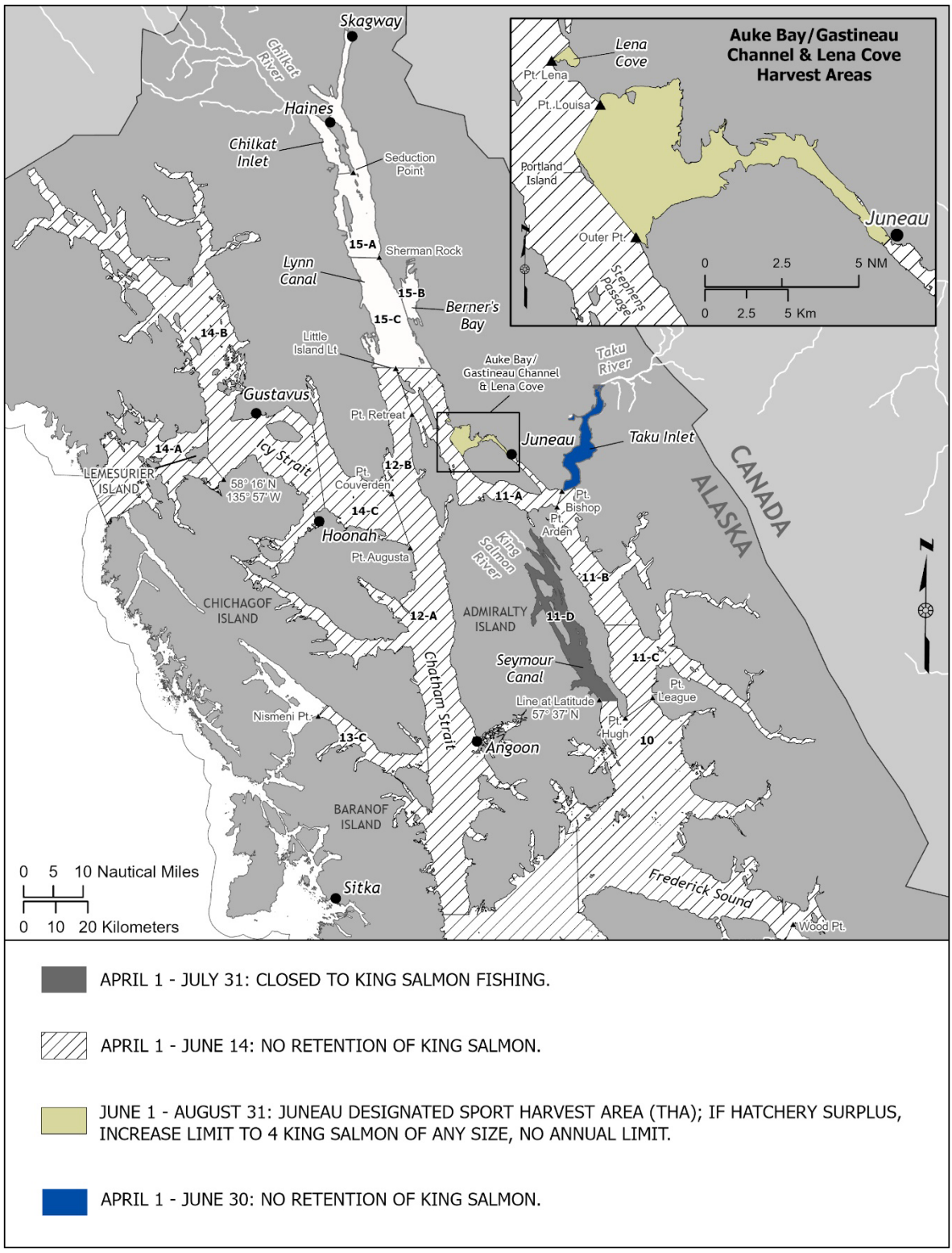

Figure 4.–Map of northern Southeast Alaska displaying sport fishing management actions.

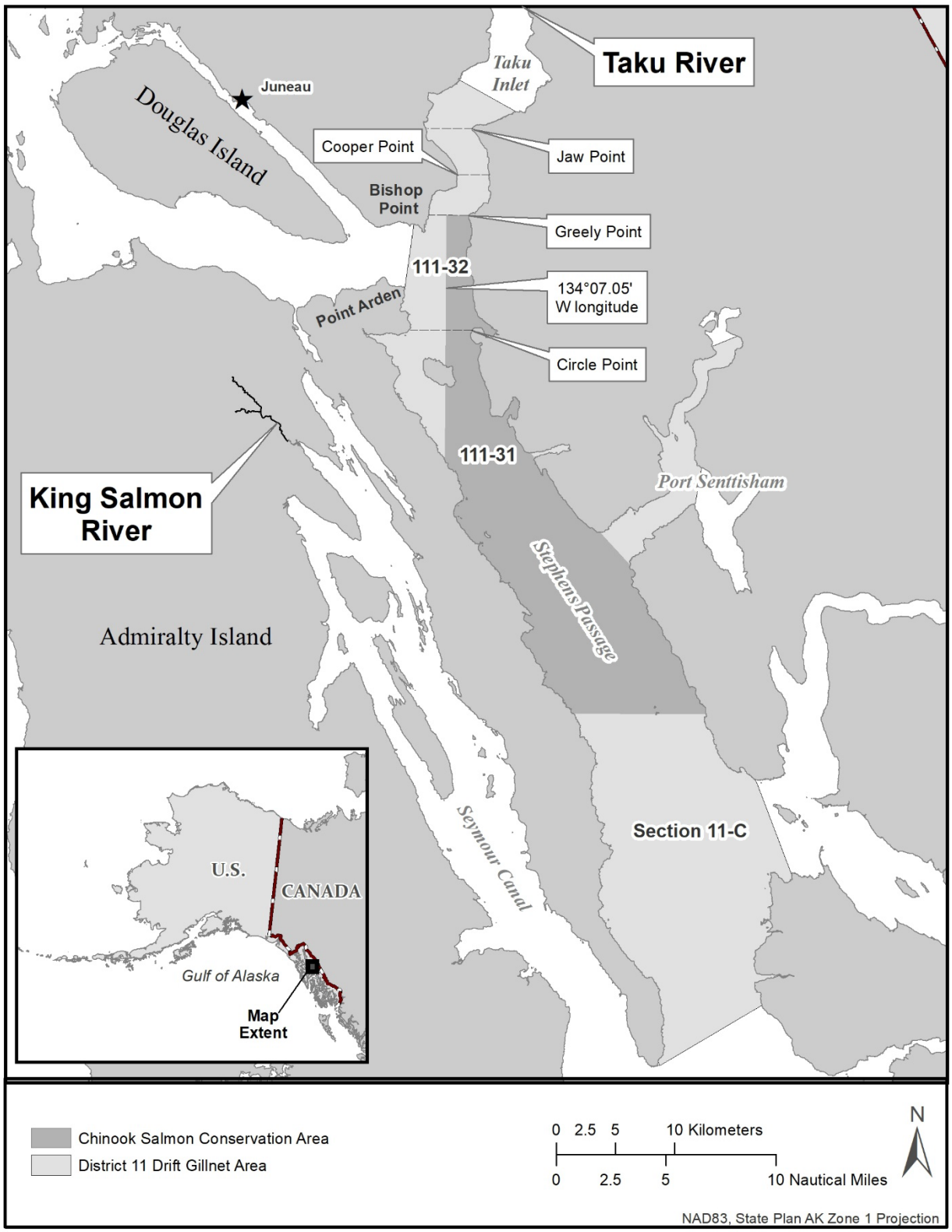

Figure 5.–Map of District 11 commercial drift gillnet fishing areas in northern Southeast Alaska.

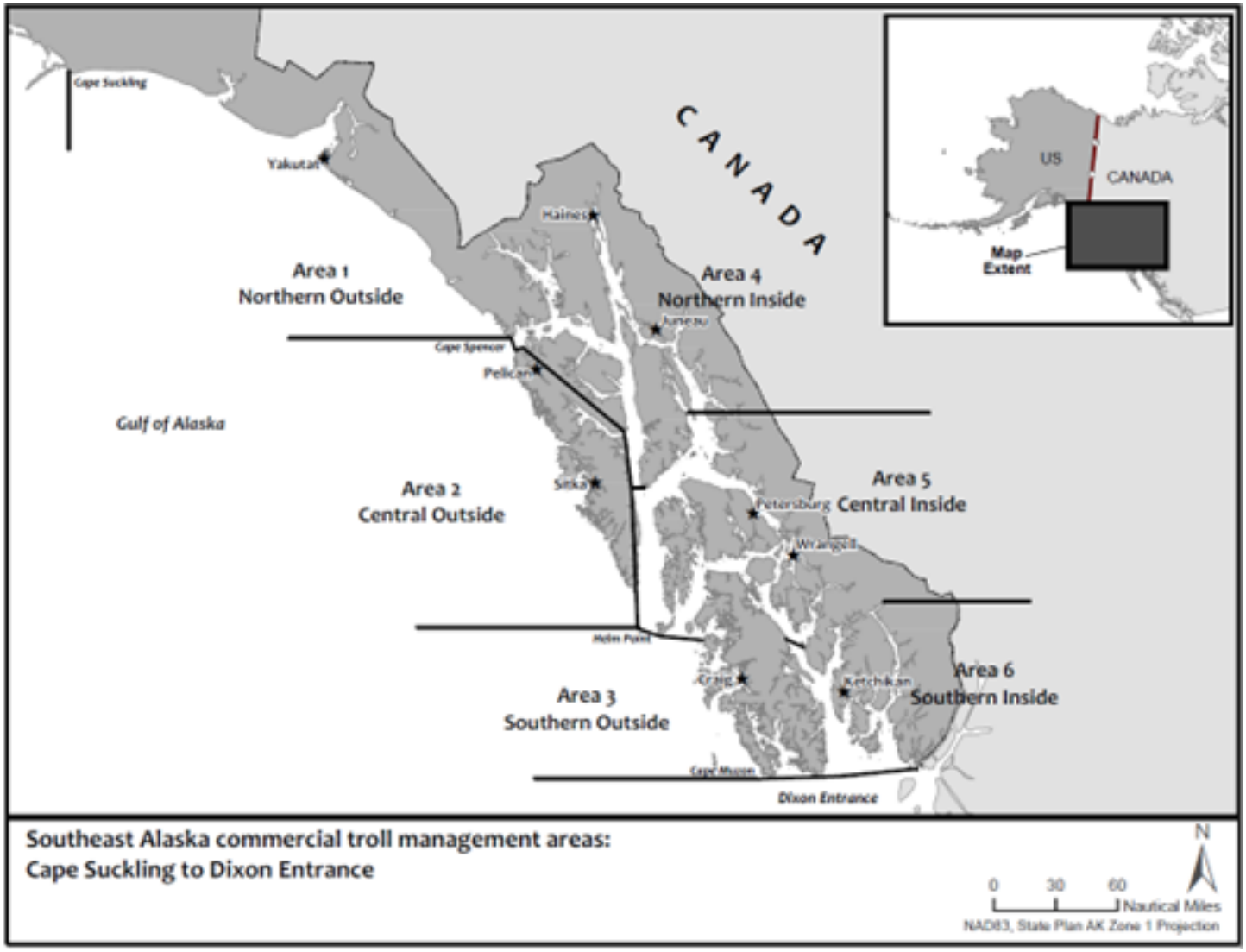

Figure 6.–Map of Southeast Alaska commercial troll fishing and Big Six management areas, Cape Suckling to Dixon Entrance.

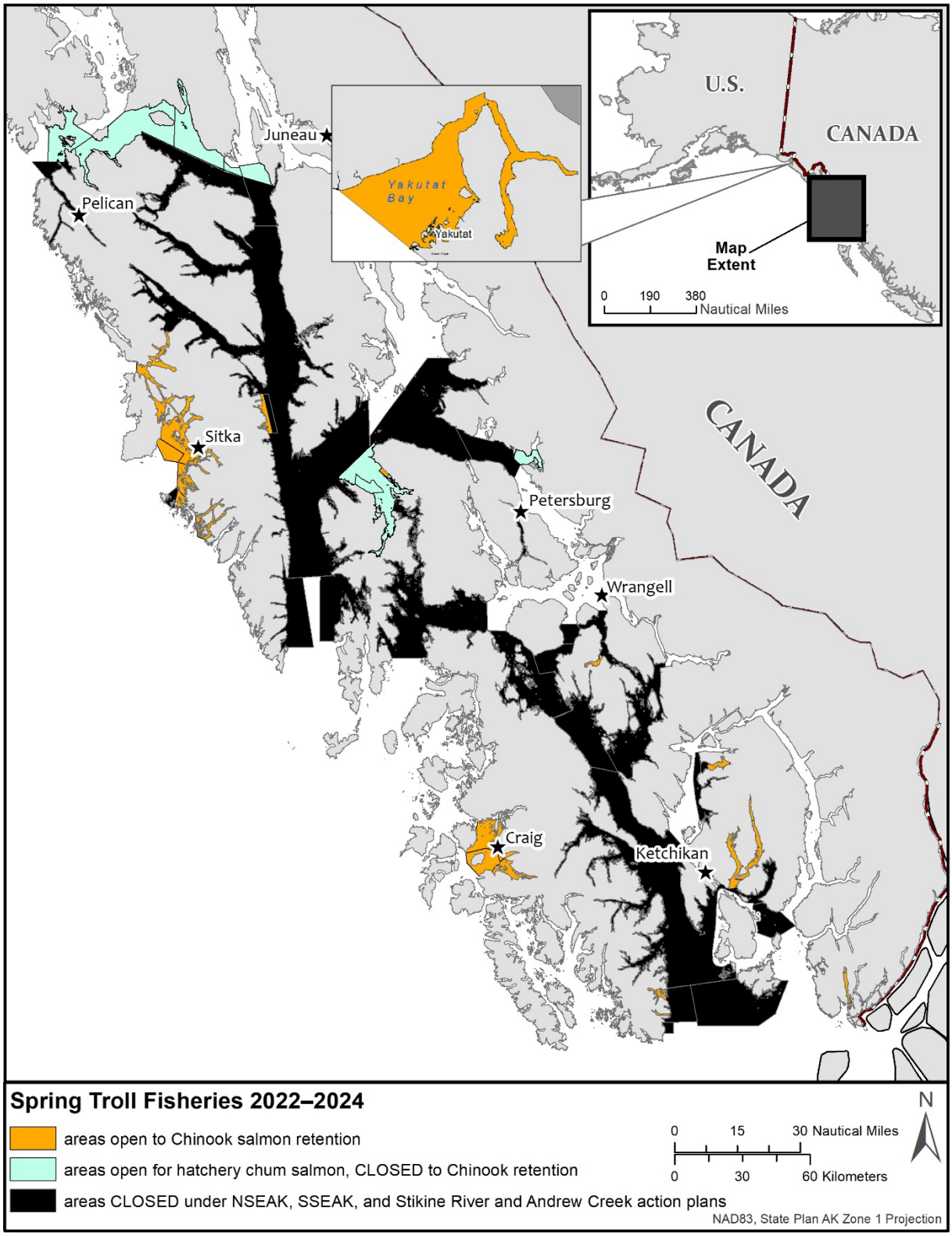

Figure 7.–Map of Southeast Alaska commercial spring troll fishing areas.

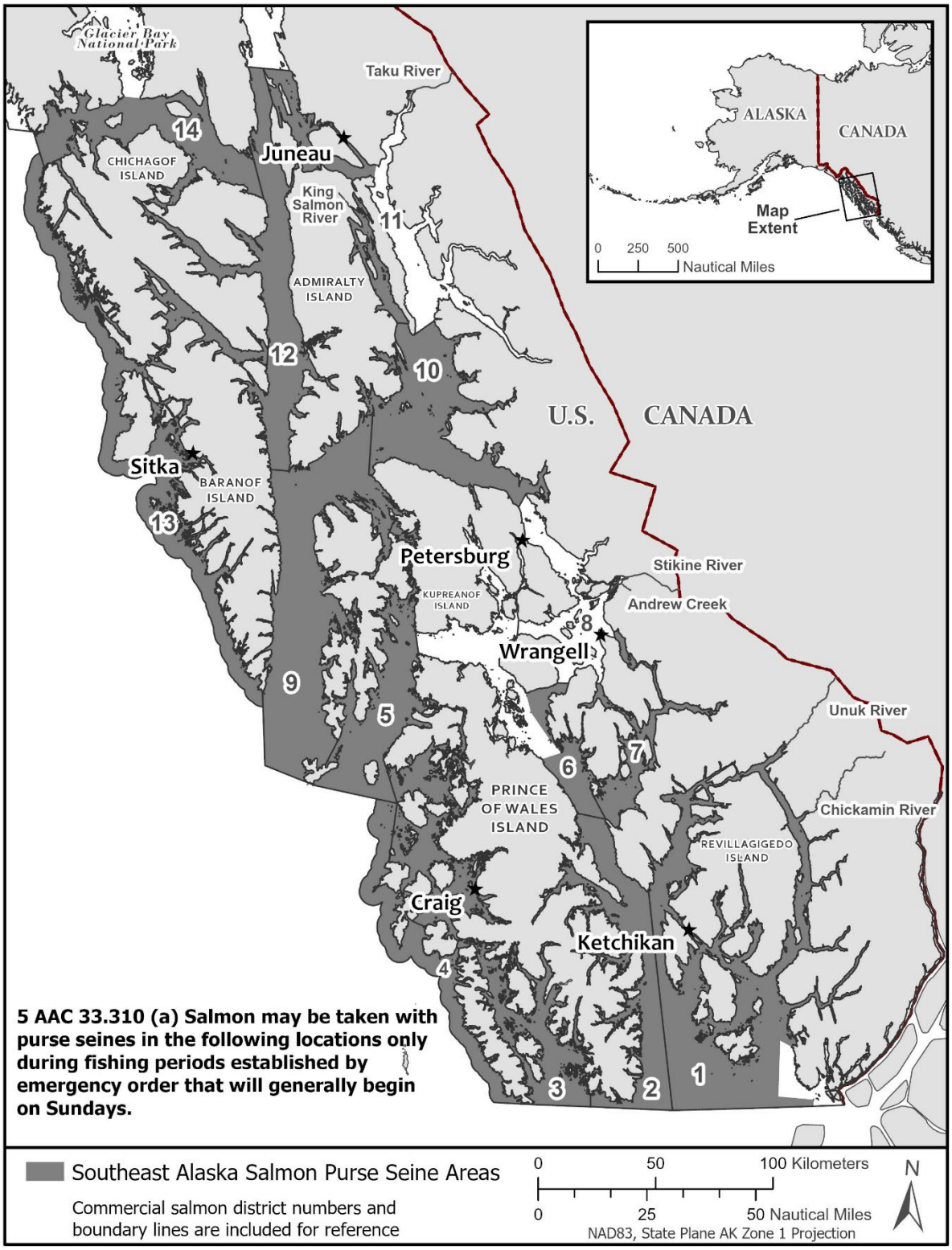

Figure 8.–Map of Southeast Alaska commercial purse seine fishing areas.