

**Regional Information Report No. 1J07-11**

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# **2007 Summer Troll Fishery Management Plan**

by

**Brian Lynch**

And

**Pattie Skannes**

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June 2007

Alaska Department of Fish and Game

Division of Commercial Fisheries



## Symbols and Abbreviations

The following symbols and abbreviations, and others approved for the *Système International d'Unités* (SI), are used without definition in the following reports by the Divisions of Sport Fish and of Commercial Fisheries: Fishery Manuscripts, Fishery Data Series Reports, Fishery Management Reports, Special Publications and the Division of Commercial Fisheries Regional Reports. 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.

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

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by

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June 2007

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*This document should be cited as:*

*Lynch, B. and P. Skannes. 2007. Management plan for the summer commercial troll fishery in Southeast Alaska, 2005. Alaska Department of Fish and Game, Regional Information Report 1J07-11, Douglas.*

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## **ABSTRACT**

This document summarizes the plan that the Alaska Department of Fish and Game (department) will follow to manage the 2007 Southeast Alaska summer commercial salmon troll fishery July 1–September 30, 2007, according to the Board of Fisheries adopted guidelines listed in the State of Alaska Administrative Code, Title 5, Chapter 29 Salmon Troll Fishery. The first Chinook salmon fishing period will begin July 1, is expected to last 8 to 12 days, and will be managed inseason for a target harvest of 120,500 fish. The remainder of the troll Chinook salmon Treaty allocation will be harvested following the August coho salmon closure period. The fishery will be open to harvest coho salmon July 1–September 20, with inseason consideration given to a possible conservation closure period in late July, a possible conservation or allocation closure in mid-August, and consideration of an extension of the season until September 30.

Key words: salmon, troll, summer, commercial, management plan, Chinook salmon, coho salmon, Southeast Alaska

## **INTRODUCTION**

The Southeast Alaska/Yakutat commercial salmon troll fishery occurs in State of Alaska and Federal Exclusive Economic Zone (EEZ) waters east of Cape Suckling and north of Dixon Entrance. The fishery is managed according to regulations promulgated by the Alaska Board of Fisheries (board), the North Pacific Fishery Management Council (NPFMC), the National Marine Fisheries Service (NMFS), and the U.S./Canada Pacific Salmon Commission (PSC). The department, under emergency order authority, conducts inseason management. In 2007, the all-gear Chinook salmon fishery will be managed to achieve a harvest target based on the “U.S./Canada 1999 bilateral agreement for the Southeast Alaska all-gear Chinook catch” (Agreement). The Agreement specifies a harvest based on a relationship between a preseason Abundance Index (AI) generated by the Pacific Salmon Commission’s Chinook Technical Committee and a target harvest rate specified in the Agreement. The Agreement also provides for an inseason adjustment to the harvest level based on an assessment of inseason data. Coho salmon will be managed to ensure escapement goals and to achieve board allocation guidelines. Coho salmon near Dixon Entrance will be managed in cooperation with Canada according to the Agreement.

This management plan discusses the management objectives and methods used to achieve board, NPFMC, NMFS, and PSC policies and goals for the commercial summer troll fishery. This plan covers commercial trolling for Chinook, coho, and chum salmon. Other species caught and retained by trollers are considered incidental.

## **2007 SUMMER TROLL FISHERY DATES**

The summer troll fishing season covered in this plan is July 1 through September 20. Chinook salmon may be harvested only during open periods announced by the department. The coho salmon season may be extended no more than 10 days (September 21 through September 30) in Districts 101 through 116 (Figure 1) depending on run strength (5AAC 29.110).

## **MANAGEMENT APPROACH**

### **CHINOOK SALMON**

The majority of the Chinook salmon harvested in the Alaska summer troll fishery are of wild stock origin. Hatchery stocks harvested in the fishery originate in British Columbia, Canada, Washington, and Oregon with a relatively small number from Alaskan hatcheries. As a result, the Southeast Alaska Chinook salmon harvest is managed on an annual, all-gear catch quota

established by the United States and Canada through the PSC. The ceiling is now abundance-based, with increased quotas when abundance is high, and vice versa. In addition to the catch ceiling of Treaty fish, provisions of the Pacific Salmon Treaty (PST) administered by the PSC provide for an additional harvest of Chinook salmon that have been produced in Alaskan hatcheries (add-on). The all-gear add-on is equal to the total number of Alaskan hatchery Chinook caught, minus the pre-Treaty production of Chinook salmon of around 5,000 fish, and a risk adjustment factor of around 1,000 fish.

## **Management Objectives**

1. Achieve the allowable Chinook salmon harvest.
2. Maximize the harvest of Alaska hatchery-produced Chinook salmon.
3. Manage the fishery according to the board's Summer Salmon Troll Fishery Management Plan (5AAC 29.100)
4. Continue the coastwide natural Chinook salmon stock-rebuilding program.
5. Achieve catch allocations among user groups as mandated by the board.
6. Minimize the incidental mortality of Chinook salmon to the extent practicable.

## **Management Methods**

### **General Summer Fishery**

Historically, the majority of Chinook salmon are taken during the general summer opening when the majority of waters, including the outside waters, are open to trolling. Unlike the spring fishery, a quota is set for management of Chinook salmon. One of the major functions of the department's troll management plan is determining when the general summer season for Chinook salmon must be closed in order to stay within the allowable harvest. Tabulating the up-to-date troll catch is difficult due to the large number of fish tickets and the difficulty of receiving them from remote areas in a timely manner. Therefore, a Fisheries Performance Data (FPD) program, consisting of confidential interviews with commercial trollers as they deliver catches, is used to estimate daily catch rates in six areas (Figure 2). The total number of days the fishery will be open for Chinook salmon retention is calculated by dividing the summer season harvest goal by the estimated daily catch by the troll fleet. From 1992 through 1995, and again in 2000 and 2001, the department announced a fixed number of days beginning July 1, due to the low number of Chinook salmon available for harvest. From 1996–1999 and 2002–2006, the department returned to inseason management. For 2007, the department will manage the first opening period in season. Inseason management for 2007 is preferable because the relatively large Chinook quota makes it more difficult to project the number of days it will take to harvest the quota. The department will manage the summer troll season according to the board management plan (5 AAC 29.100), which calls for harvesting 70% of the remaining Chinook salmon troll quota (see next section) in an initial opening beginning July 1. The remainder of the Chinook salmon quota is to be harvested following any closure for coho salmon conservation and/or allocation in August. The management plan also calls for all areas to be open during the July 1 opening. Following the first Chinook opening, the areas of high Chinook abundance (Figure 3) will be closed unless fewer than 30% of the total remaining number of Chinook salmon were harvested in the first opening. In addition, during the second Chinook salmon opening, if the department

determines after 10 days that the annual troll Chinook salmon harvest ceiling might not be reached by September 20, the commissioner shall reopen by emergency order the areas of high Chinook salmon abundance.

The hatchery add-on is calculated in season through port sampling programs. Chinook salmon are sampled for the presence of adipose fins. The heads from fish that have missing adipose fins are then sent to the Juneau mark, tag and age lab for processing. Coded wire tags are removed from the heads and decoded. The number of Alaskan hatchery fish is calculated by expanding the number of Alaskan hatchery-produced Chinook salmon in the sampled catch by the total catch.

### **Projected 2007 Chinook Salmon Harvests**

The Chinook salmon fisheries will be managed according to the Agreement. In addition to the pre-Treaty troll fishery “base catch,” of 3,700 Chinook salmon, and the hatchery catches in the winter and spring fisheries, Alaska hatcheries are projected to contribute approximately 5,200 Chinook salmon to the summer troll harvest for a projected 2007 total catch of 29,000 Alaska hatchery Chinook salmon. The actual hatchery add-on will be determined in season and finalized postseason from coded-wire-tag (CWT) estimates.

At the February 1997 and January 2006 Board of Fisheries meetings, sharing percentages were established for the recreational and commercial troll and net Chinook salmon fisheries (not including Alaska hatchery Chinook salmon). The commercial troll fishery was allocated 80% and the recreational fishery 20% of the PST quota, after subtracting 4.3% from the total for the purse seine fisheries, 2.9% for the drift gillnet fishery, and 1,000 fish for the setnet fishery. Each group is responsible for proportionally sharing the 5,000 pre-Treaty Chinook salmon harvest and risk adjustment factors.

The Chinook Technical Committee (CTC) of the PSC has determined that the Chinook salmon abundance index for Southeast Alaska for 2007 is 1.60. This abundance index equates to an all-gear quota for Treaty Chinook salmon of 329,400 fish. This quota is 17,400 fish fewer than the 2006 pre-season quota but is still the 6<sup>th</sup> highest allowable catch since 1985 when the PST went into in effect. The large Chinook salmon quotas in recent years is due to significant increases in abundance projections over the past several years for nearly all stock groups that are harvested in the Southeast Alaska all-gear Chinook salmon fishery. However, Chinook salmon abundance is cyclical and stock abundance is now likely on the downward side of that cycle. According to the BOF allocation plan outlined above, the troll fishery allocation of the Treaty quota is approximately 243,700 fish. The summer troll Treaty quota is calculated by adding the winter Treaty harvest (42,160 fish), the spring Treaty harvest (estimated 19,000 fish), the pre-Treaty Alaska hatchery harvest (3,700 fish), and a statistical risk factor surrounding the Alaska hatchery contribution estimate of 1,000 fish, and subtracting the catch of Transboundary River fish above the base period catch (estimated at 1,600 fish). The resultant sum is then subtracted from the troll allocation. This results in a summer troll quota of approximately 167,000 Treaty fish (19,200 fewer than 2006). In addition, under the BOF plan, 70% of the summer quota is to be harvested during the first summer opening beginning July 1. Therefore, the target catch for the first opening will be approximately 116,900 Treaty fish, plus an estimated 3% Alaska hatchery fish, or a total first summer opening target catch of 120,500 fish. The second Chinook opening Treaty target catch is projected to be approximately 51,600 (50,100 Treaty) fish. However, the actual target for the second opening will be dependent upon the catch in the first Chinook opening and any changes in the spring fishery catch.

## Preliminary Treaty Chinook Salmon Troll Fishery Harvests for the 2007 Season

**Table 1.**—Summary of Treaty Chinook salmon catch ceilings for the 2007 season.

CHINOOK SALMON CATCHES						
Treaty Quota	Seine	Drift GN	Set GN	Sport	Troll	
329,392	14,164	9,552	1,000	60,935	<b>243,741</b>	
				Total	Hatchery	Treaty Fish*
2007 Troll Numbers:		Winter		46,880	4,720	42,160
		Spring		50,500	19,000	31,500
Pre-Summer Total Catch:						<b>73,660</b>
Pre-Treaty hatchery and statistical risk factor:						<b>4,700</b>
				Total pre-Summer Catch:		<b>78,360</b>
Transboundary Rivers directed catch						<b>-1,600</b>
						<b>76,760</b>
Summer Total = Troll - Pre-summer total - Pre-Treaty and risk factor - TBR:						<b>167,000</b>
243,741 – 76,760 = 166,981						
Projected First Summer Treaty Fish Target = 70% summer total =						<b>116,900</b>
Projected Second Summer Treaty Fish Target = Summer total-First summer catch =						<b>50,100</b>

\*Numbers are rounded.

The department will update the preseason projection of abundance with actual fishery catch and effort statistics immediately following the closure of the first opening. Any adjustments to the targeted all-gear harvest based on this inseason data will be made as soon as possible.

Based on past fishery performance at similar abundance levels of Treaty Chinook salmon, the department anticipates the first opening will last between **8 and 12 days**. However, effort and catch rates are highly variable and because the projected fishery length is based on historical effort levels the actual length of the first opening could be significantly different than projected. Closure announcements and any updates will be made via U.S. Coast Guard marine advisory broadcasts and trollers are advised to either listen to the U.S. Coast Guard Marine Advisory broadcasts daily or stay in close contact with the department or processors for any such announcements.

Following the closure of the initial summer Chinook salmon period, all Chinook salmon must be offloaded prior to resuming trolling for other species.

### COHO SALMON

Most coho salmon harvested in the troll fishery are of Alaska origin. They spawn in approximately 2,500 streams in Southeast Alaska during the fall and early winter months. Coho salmon harvests were depressed in the mid to late 1970s but improved through most of the 1980s and 1990s. The 2006 harvest was 1.36 million fish, the 16<sup>th</sup> largest since statehood. An assessment in early August indicated that a mid-season closure of 4 days was appropriate prior to the second Chinook opening. An additional 5-day closure was implemented immediately following the second Chinook closure in order to provide for adequate escapement to the inside waters. Based on the troll catch rates, 2006 appeared to be a below-average return year (likely due to the extensive drought and low warm water in 2004). Also, poor drift gillnet harvests indicated that the 2006 coho return to the southern portion of the region was below average, so the troll fishery was extended through September 30 only in portions of the northern districts.

Troll fishery catches of coho salmon in outer coastal areas generally peak during mid-July to mid-August. Catches in inside fisheries generally peak during late August to mid-September. Most coho salmon migrate into spawning streams between late September and mid-October.

Early in the season, coho salmon stocks returning to southern Southeast Alaska are harvested by the troll fishery in northern and central outside areas where they intermingle with coho salmon bound for northern and central areas of the region. Management of coho salmon is based on aggregate abundance. Lack of a general coho salmon stock identification technique prevents assessment of run strength of individual stock groups contributing to these early-season mixed stock fisheries. Hatchery coho salmon production (almost entirely from Southeast Alaska facilities) first became significant in 1980. The contribution of hatchery coho salmon since then has varied from 0.4% of the total troll catch in 1980, 13.0% in 1986, 5.5% in 1988, and 20 to 26% from 1996 through 2004. The 2006 Alaska hatchery contribution of 16% was nearly identical to the 2004 and 2005 contributions and was also slightly lower than the eight years prior to 2004.

### **Management Objectives**

1. Provide adequate escapement of coho salmon, by area, to ensure sustainable populations.
2. Provide maximum opportunities for harvest consistent with conservation objectives (5AAC 29.110).
3. Manage the coho salmon fisheries to achieve allocations consistent with board regulations.
4. Manage coho salmon on the U.S./Canada border to comply with provisions of the Agreement.

### **Management Methods**

As with Chinook salmon, the department's primary tool for inseason assessment of coho salmon catch rates is a program of dockside interviews with vessel skippers. Catches by the net fisheries are obtained from fish tickets, while the recreational catch is estimated from a creel census conducted by the Sport Fish Division. An assessment of run strength using troll catch per unit of effort (CPUE) data from the FPD program occurs in mid to late-July. Information available on individual coho salmon indicator stocks will also be considered in management actions.

Catch rates will be assessed in Southern Southeast Alaska from mid- through late-July to assess run strength of early-run coho salmon returning to systems in both Canada and the U.S., near the border. If run strength is weak, areas of Districts 101–104 may close for conservation for up to three weeks, from late July through mid-August, as per the terms of the June 1999 PST agreement.

Projected total season troll coho salmon harvests will be used as a relative index of total run size. Analysis of the FPD program has shown that the average area-wide catch-per-day for Statistical Weeks 28 and 29 (average week ending date is July 19) for the years 1981 to 2004 is a good predictor of the wild coho salmon catch (Figure 4). If the projected overall run size is less than 1.1 million wild fish, the department will implement a 7-day conservation closure beginning sometime in late July (5AAC 29.110). In 2007, the department will make this projection during the third or fourth week of July (Figure 4). The 2005 and 2006 catch and effort data will not be

used for this projection because coho fishing or fish behavior patterns during those years did not reflect patterns consistent with other years. The department will continue to monitor all coho fisheries after the July assessment to determine if the number of coho salmon reaching inside areas will be adequate to provide for spawning requirements, given normal or even restricted inside fisheries. The primary abundance indicators for this assessment consist of relative harvest levels by all fisheries and, in particular, CPUE of wild fish in inside drift gillnet and sport fisheries compared to 1971–1980 levels. An assessment will be made in early August to determine when and how long to close the troll fishery for conservation and allocation purposes.

Cumulative catch per day of wild fish will be monitored in each of the six FPD areas (Figure 2) through August to assess run strength in each of the areas. Data will be compared with catches and CPUE within these areas and, if necessary, the department will implement area-specific closures.

The department, in years of high abundance, may extend the troll season through September 30 in portions of Districts 101 through 116 if there are no conservation concerns. The department will consider the following data in determining if an extension is warranted:

1. Total run size projection,
2. Total harvests to date by gear by area,
3. CPUE relative to previous years by gear by area,
4. Percent of hatchery fish in the catch relative to previous years,
5. Survival projections for hatchery and wild stocks, and
6. Inseason escapement data.

The department will announce any extensions, if warranted, during the third week of September.

### **Allocation Actions**

The board has established long-term allocation goals for the coho salmon harvest by each commercial gear type. Target percentages established by the board are 61% for troll, 19% for purse seine, 13% for drift gillnet, and 7% for set gillnet. The board stated that subsistence, personal use, and recreational harvests of coho salmon are not affected by the established allocations between commercial gear types. The board also stated that:

“These percentages are guidelines only and may vary from season to season given natural fluctuations in salmon abundance and distribution and the limitations of fisheries management. It is, however, the board’s intent that these allocation guidelines be met as closely as possible over the long term. It is not the board’s intent for the department to disrupt any of the traditional commercial fisheries that the historical allocation is founded. The department may, however, make inseason adjustments to attempt to achieve these long term allocation guidelines.”

The department will, however, implement applicable, existing regulations (5AAC 29.100). These regulations are:

1. A regionwide troll closure for up to 10 days is required during the coho salmon season to address allocations between outer coastal fisheries and inside water fisheries if the department determines that the proportional share of coho salmon harvest by the troll

fishery is larger than that of inside gillnet and recreational fisheries compared to the 1971–1980 levels. Primary inside fishery indicators for this assessment are overall coho salmon harvests, escapement projections for streams where escapement goals have been established and CPUE in the Tree Point, Prince of Wales, Taku/Snettisham, and Lynn Canal drift gillnet fisheries, and Juneau marine sport fishery.

2. In Sections 1-C, 1-E, and 1-F, salmon may be taken only as follows (Figure 5).
  - (a) Section 1-C: from August 15 through September 20.
  - (b) Section 1-E:
    - (1) In waters of W. Behm Canal within one nautical mile of the western shore of Revillagigedo Island north of the latitude of Escape Point 55°39.07' N. lat., 131°43.08' W. long. excluding the waters of the Neets Bay SHA (5 AAC 33.370) from July 1 through September 20.
    - (2) All other waters from July 13 through September 20.
  - (c) Section 1-F: east of a line from the northernmost tip of Kirk Point to Mary Island Light to the southernmost tip of Cone Island, from July 13 through September 20.
  - (d) Section 1-F: east of a line from the southernmost tip of Black Island to the westernmost tip of Slate Island to the westernmost tip of White Reef to the easternmost tip of Black Rock to the northernmost tip of Kirk Point, including the waters of Boca de Quadra not closed under 5 AAC 29.150(b)(2), from August 1 through September 20.
3. In District 8 the weekly fishing periods for trolling are the same as for drift gillnetting (Figure 6):
4. In District 11 salmon may be taken only in Sections 11-C and 11-D (Figure 7).
5. In District 15 salmon may be taken only in Sections 15-A and 15-C.
6. The troll fishing schedule in portions of State waters off Yakutat, beginning August 7, corresponds to weekly fishing periods in the set gillnet fisheries (Figure 8).

If a regionwide troll closure is implemented to conserve coho salmon during late July or early August, the likelihood of a closure during mid-August to meet the allocation criteria will be reduced. Any potential transfer of coho salmon harvest to inside fisheries resulting from an early closure, if implemented, will be reflected in inside fishery performance indicators used for comparison against the allocation criteria.

## Tentative 2007 Summer Season Schedule

The following is a generalized timetable for summer salmon management. It is emphasized that some modifications to this schedule may be required.

DATES	EXPECTED REGULATORY ACTIONS
July 1	Open the 2007 general summer troll season for all species; the initial troll Chinook salmon opening will close when 70% of the total summer harvest target has been harvested. The first Chinook salmon retention period will be managed in season with no pre-determined length. The waters of frequent high Chinook salmon abundance will close following the Chinook salmon closure.
Mid through late July	Assess coho salmon run strength in Southern Southeast Alaska. Portions of Districts 101–104 may close if run strength indicates conservation concerns for coho salmon stocks near the U.S./Canada border.
Late July/early August	Seven-day, regionwide conservation closure if projected run size is less than 1.1 million wild coho salmon; the projected total season commercial harvest will be used as index of run size.
Mid to late August	A regionwide closure of up to 10 days will be implemented if required for either coho salmon conservation or allocation based on assessment of stock and fishery performance data relative to board-established criteria. If a regionwide conservation closure has occurred during late July, the likelihood of a closure being implemented for allocation at this time will be reduced.  Following any closure of the troll fishery, the Chinook salmon fishery will reopen to take all of the remaining Treaty quota Chinook salmon. A minimum closure of 2 days is required prior to the second Chinook salmon opening to allow for a fair start (5 AAC 29.100(c)(1)(B)(ii)).  During the closure period, a chum salmon fishery may occur in the Sitka Sound and Neets Bay areas (Figures 9 & 10).
Late August to September 20	Coho salmon conservation measures implemented region-wide or by area, as required, to protect weak coho stocks.
Mid-September	An assessment of coho strength to determine if the troll season may be extended beyond September 20.
September 20	Established regulatory closing date of 2007 general summer troll season.  All salmon must be offloaded prior to fishing in the Winter Troll Fishery beginning October 11.

The widespread and complex nature of the troll fishery necessitates a closely coordinated management program. Inseason management is accomplished through a team consisting of the Southeast regional supervisor and management biologist, two troll fishery management

biologists, and 12 area management biologists. Department contact information is listed at the end of this plan.

### **Logbook Program**

The ADF&G Southeast Alaska troll logbook program will cease operation at midnight June 30, 2007 and will not be in effect during the 2007 summer fishery. We will accept logbooks documenting at least 3 fishing days completed anytime from October 2006 – June 2007 until August 15, 2007 for payment. Please contact Anne Berg at (907)-465-4208 with questions or concerns regarding this program.

## **OPEN AREAS DURING 2007 GENERAL SUMMER TROLL SEASON**

Salmon trolling is permitted in all areas during the first Chinook salmon retention period of the 2006 general summer season except for those waters described in 5AAC 29.100 and the closed waters listed in 5AAC 29.150. In addition, during subsequent Chinook salmon retention periods, waters designated as frequent high Chinook salmon abundance (5AAC 29.025) will be closed as necessary. During the 2006 Board of Fisheries meeting in January, the northern boundary of the high Chinook salmon abundance area along Yakobi Island was changed and moved south approximately 1/3 N. miles. The new northern boundary is now at 58°05.00' N. lat. (5AAC 29.025(a)(3)).

## **REGULATIONS PERTAINING TO COMMERCIAL TROLL BYCATCH OF GROUND FISH AND HALIBUT**

For information on the Southeast Alaska Groundfish regulations, refer to the 2006–2007 Statewide Commercial Groundfish Fishing Regulations books available at all Southeast ADF&G area offices.

1. Commercial halibut may be legally retained only by trollers holding individual fishing quota shares (IFQs) during the open season for halibut, March 10–November 15 [5 AAC 28.133 (c)]. Trollers holding unfilled IFQs are required to retain any legal-sized halibut taken incidentally while trolling [50 CFR 679.7(f)(11)]. If trollers have no more than 500 pounds of halibut onboard and if landed concurrently with a legal landing of salmon, they can offload their catch without having to give a 3-hour notice to the National Marine Fisheries Service. Trollers fishing for salmon in Sitka Sound must retain halibut bycatch if they hold IFQs. Halibut taken incidentally while trolling for salmon should be reported on the same troll ticket with the salmon harvest.
2. Lingcod greater than 27 inches (tip of snout to tip of tail) may be taken as bycatch in the commercial salmon troll fishery from May 16 through November 30 (5 AAC 28.113 (c)) in areas in which the troll bycatch allowance has not been harvested. The lingcod allocation for the Icy Bay subdistrict (IBS) has been harvested and lingcod retention in this area is prohibited for the remainder of the year. Troll bycatch limits have been established for the Northern Southeast Outside (NSEO) and the East Yakutat (EYKT) management areas. In the NSEO area, trollers may retain lingcod (round weight) up to 5% of the round weight of salmon onboard. In the EYKT area, trollers may retain lingcod (round weight) up to 10% of the round weight of salmon onboard. When the troll lingcod quota is reached for each management area, trollers will be required to release all lingcod

back into the water. There are no troll bycatch limits in the other management areas, so trollers may retain unlimited amounts of lingcod over 27 inches in length until the troll allocation is reached in each area (5AAC 28.133(a)). Inseason closures may occur on short notice and will be announced by news release and marine radio broadcasts by the National Weather Service and the U.S. Coast Guard.

3. Trollers are requested to retain tagged lingcod of any size and to notify the nearest Fish and Game office at the time of delivery so the fish may be sampled. Tagged lingcod may be retained at any time, however tags must remain attached to any tagged lingcod that are undersized or taken out of season or in a closed area. Fish may be landed dressed, with the head attached. The date, exact location, and depth where the fish was taken should be recorded. A reward will be given to those who turn in tagged lingcod with the necessary catch information. (Contact Mike Vaughn, 304 Lake Street, Room 103 in Sitka; phone: 907-747-6688).
4. Trollers are reminded that the waters of Sitka Sound are closed permanently to the taking of lingcod [5 AAC 28.150(a)]. Trollers who have lingcod onboard may not fish in areas closed to lingcod retention.
5. Full retention of Demersal Shelf Rockfish (DSR) is not required in the troll fishery. If DSR are retained (See Federal Fisheries Permit Requirements below) all retained DSR in excess of 10% round weight, of all salmon species on board the vessel must be weighed and reported as bycatch overage on an ADF&G fish ticket. All proceeds from the sale of excess DSR bycatch shall be surrendered to the state (5 AAC 28.171 (a)). The seven species of rockfish in the DSR assemblage are yelloweye, quillback, canary, rosethorn, copper, china, and tiger rockfish. DSR bycatch overages must be reported on fish tickets but may be kept for personal use.
6. Trollers are allowed to longline for groundfish and troll for salmon on the same trip as long as salmon are not onboard the vessel in an area closed to trolling and the fisher has both a commercial salmon permit and a commercial longline permit.
7. A vessel fishing for groundfish with dinglebar troll gear must display the letter “D” and a vessel fishing for groundfish with mechanical jigging machines must display the letter “M” at all times when fishing with or transporting fish taken with dinglebar troll gear or mechanical jigging machines (5AAC 28.135 (a)(4)). A person may not operate a vessel that is displaying one of these letters when the vessel is being used to fish for salmon (5AAC 28.135 (c)). Salmon must be offloaded prior to fishing with mechanical jig or dinglebar gear (5 AAC 28.133(b)).

## **FEDERAL FISHERIES PERMIT REQUIREMENTS**

All troll vessels that have an FFP may retain and sell up to the 10% bycatch limits and must forfeit to the state revenue above that limit.

Any troll vessels that do not have an FFP, who do fish in the EEZ and do catch groundfish may not retain those fish and they must be released before being brought onboard the vessel.

## **SPORT FISHING AND CHARTERING FROM A REGISTERED TROLL VESSEL**

1. Sport fishing is allowed from a registered commercial salmon troll vessel (5AAC 47.041 (a)).
2. If sport fishing in **waters closed** to commercial trolling, the dorsal fin must be removed immediately from any salmon brought onboard the vessel (5AAC 47.041(c)). This regulation also applies when a person is sport fishing for a **species closed** to commercial trolling.
3. Sport fishing from a commercially licensed vessel, while commercially caught salmon are in possession, is illegal in waters closed to commercial salmon fishing (5AAC 47.041(d)).
4. A vessel registered for commercial trolling may also be registered as a charter vessel, though a vessel may not be used for both activities on the same day (5AAC 75.995 (8)). Sport-caught fish may not be sold.
5. A troll gurdy may NOT be used in conjunction with a fishing rod while fishing commercially but may be legally used as a downrigger to sport fish from a hand or power troll vessel (5AAC 29.120 (e)).

These regulations can be found in the 2007 Sport Fishing regulation booklet.

## **REGIONAL AQUACULTURE TERMINAL HARVEST AREAS**

Terminal harvest areas (THAs) are described in the Southeast Alaska and Yakutat Commercial Salmon and Miscellaneous Finfish Regulations book. Hidden Falls, Inner Silver Bay, Neets Bay, Anita Bay, Deep Inlet, and Nakat Inlet THAs will be open to the harvest of all salmon species as announced and will be closed by emergency order. Trollers are requested to consult the appropriate terminal harvest area News Releases or contact any department office for the exact harvest schedules for each THA.

## **SITKA SOUND AND NEETS BAY CHUM SALMON PLANS FOR 2007**

### **Sitka Sound**

NSRAA has projected a return of approximately 1,764,000 chum salmon to the Deep Inlet THA and Medvejie Hatchery in 2007, with approximately 1,349,000 chum salmon available for common property fisheries. This projected return is smaller than the 2006 projection by 58,000 fish and 536,000 less than the expected return in 2005. The Deep Inlet THA rotational schedule began on April 29 to allow rotational gear fisheries to intercept Medvejie hatchery Chinook. The THA is open to trolling one day per week (Wednesday or Thursday) between May 3 and June 30.

The department issued a news release on June 12 describing Deep Inlet openings to target chum salmon. Beginning July 2, trolling will be allowed in the THA each Monday, Tuesday, Friday, and Saturday through July 28 and again each Monday, Tuesday, Friday and Saturday from August 13 through August 25, unless changed by a subsequent announcement. Trolling will also be allowed on August 1 and August 9. Trolling will be allowed during these scheduled times as long as it does not interfere with cost recovery fishing. Once cost recovery goals are met, the troll opening schedule will revert to one day per week, on alternating Wednesdays and

Thursdays, until the end of the season. The NSRAA Board decided at their March meeting in Sitka that cost recovery fishing will begin around July 1.

From July 1–31 the area of Silver Bay east of a line from Entry Point to Silver Point is managed to provide Chinook salmon broodstock for the Medvejie Creek Hatchery and to provide for common property troll fisheries to harvest salmon excess to broodstock needs (5AAC 33.375). A decision to open this area for trolling by emergency order will be made in consultation with NSRAA to ensure that broodstock needs are assured of being met and will be announced by News Release.

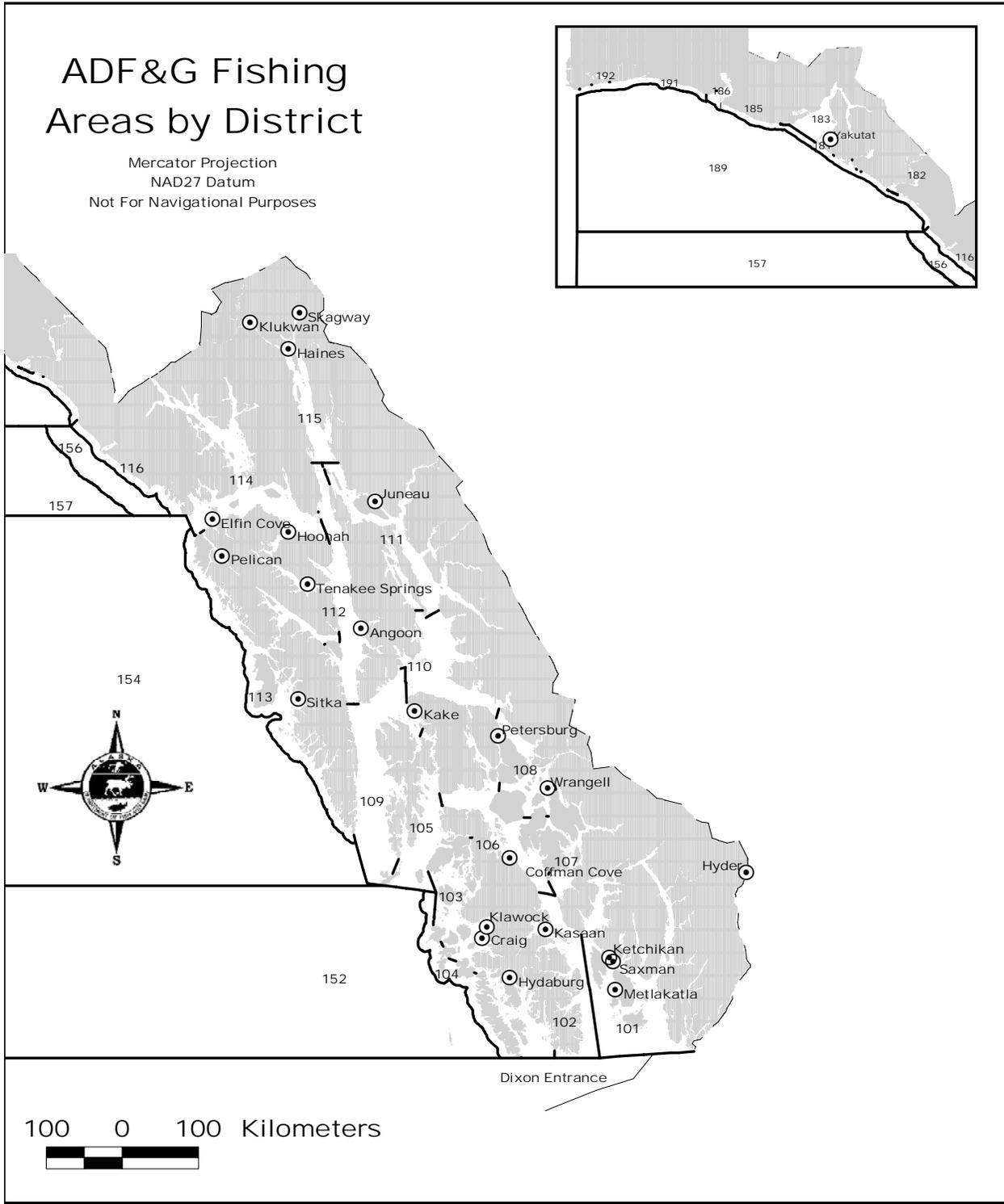
Troll harvest of returning chum salmon typically takes place in Eastern Channel and in Sitka Sound from the last week of July through the mid-August troll closure. An area has been established in Sitka Sound where trollers may target chum salmon during the troll coho closure in August (Figure 9). During the coho closure, trollers may not have coho salmon onboard while fishing for chum salmon (5 AAC 29.112).

### **Neets Bay**

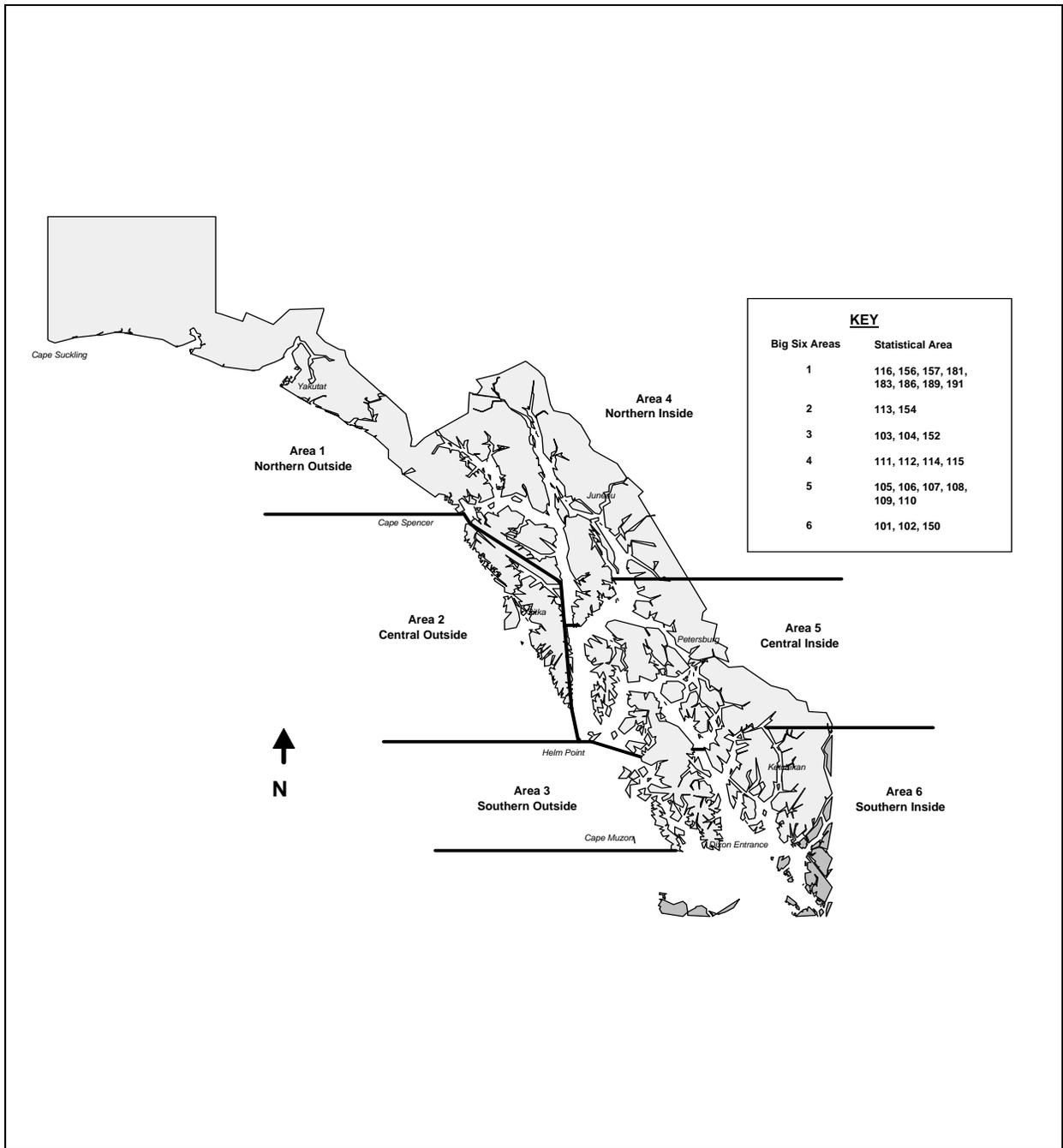
The Neets Bay Special Harvest Area has been open to trollers since May 1 and will be open until further notice. SSRAA will allow trollers to harvest summer chum in the SHA, with the target goal of 200,000 fish. SSRAA anticipates allowing troller access in the SHA throughout the summer chum return that peaks July 25 through approximately August 10. SSRAA will consider closing the SHA in inner Neets Bay under the following circumstances:

- If on July 20, the return appears to be 15% less than forecast;
- If there has been difficulty in capturing the required broodstock for the hatchery; or
- If the harvest rate suggests that troller harvest would exceed 200,000 fish.

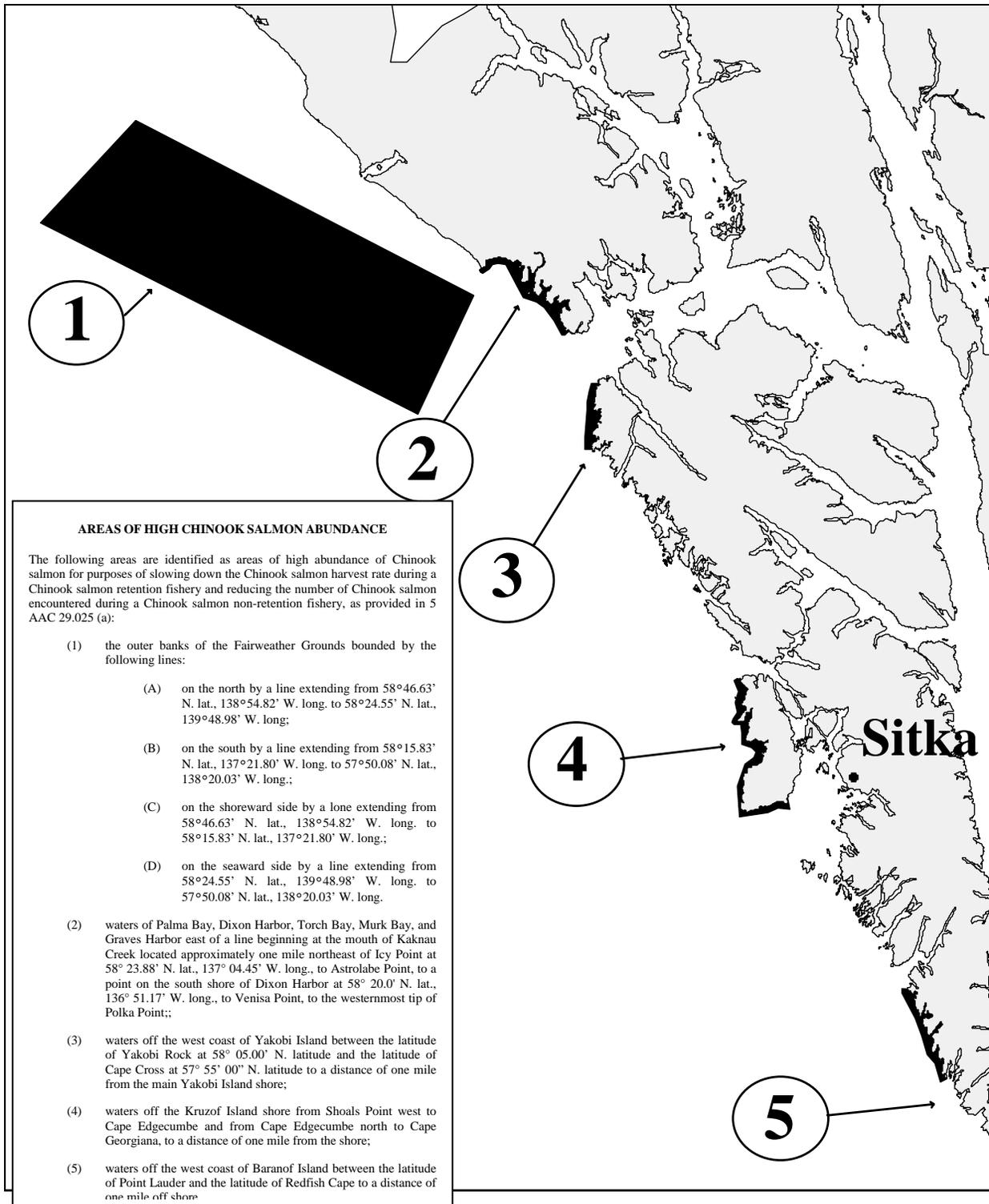
In addition, an area has been established in Neets Bay where trollers may target chum salmon during the troll coho closure in August (5 AAC 29.112). The department may open, by emergency order, the waters of Neets Bay from the longitude of Chin Point to the longitude of the easternmost tip of Bug Island (Figure 10). SSRAA is expecting a summer chum salmon return to the Neets Bay terminal area of approximately 1,437,000 fish.



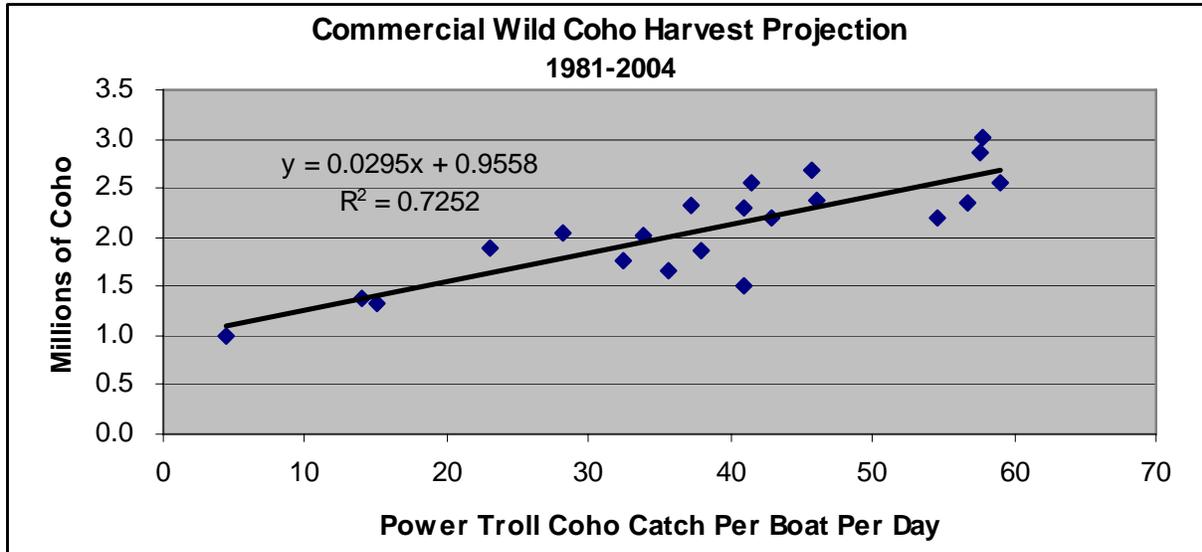
**Figure 1.**—General summer catch reporting districts.



**Figure 2.**– Fisheries Performance Data program reporting areas in Southeast Alaska.



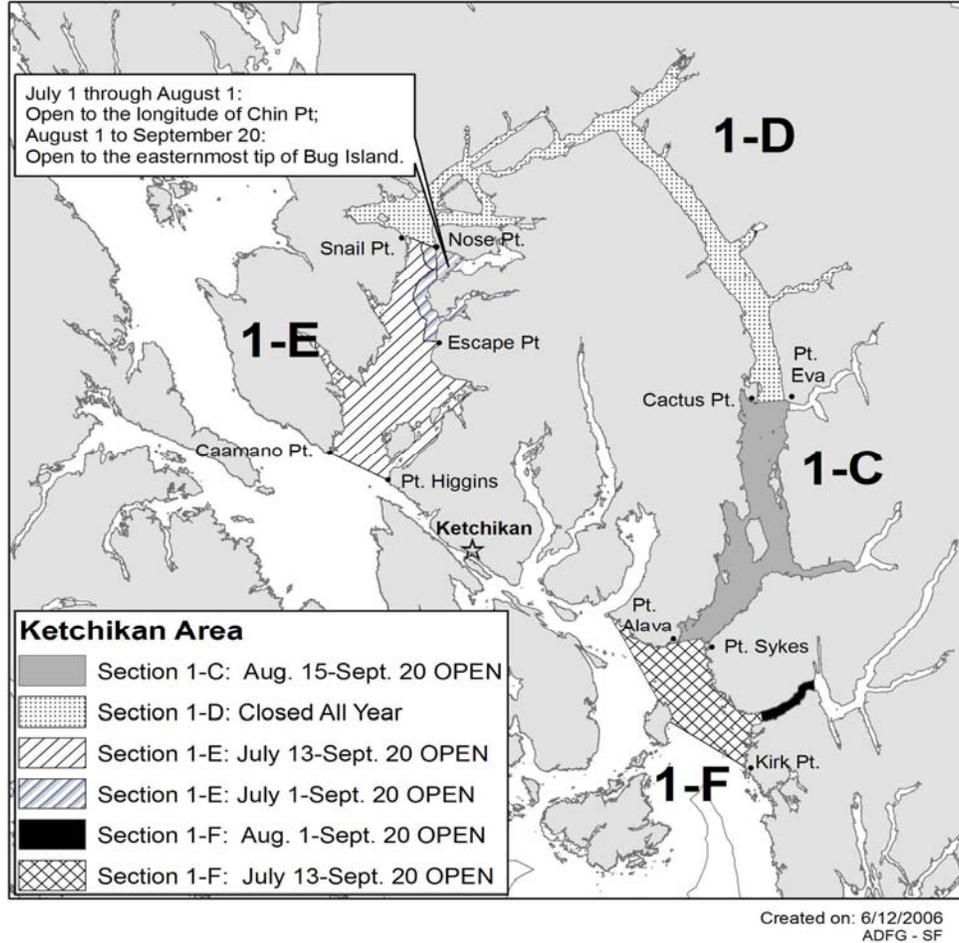
**Figure 3.**—Southeast Alaska areas closed to trolling for all species following the initial Chinook salmon opening in the Southeast Alaska summer troll season.



**Figure 4.–The linear regression model that is used inseason to predict the wild Southeast Alaska commercial coho salmon catch.**

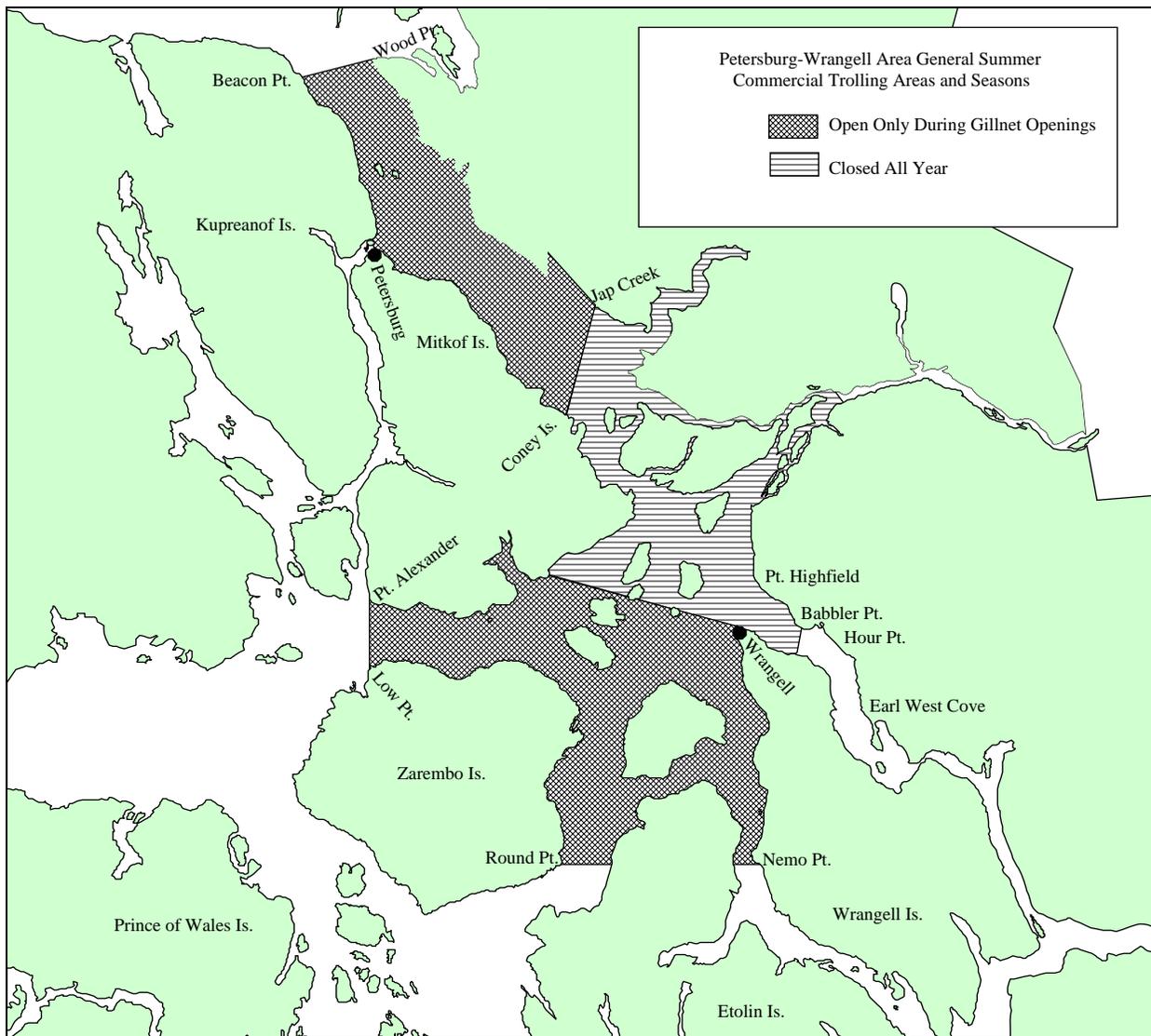
*Note:* Y axis = Region total commercial wild coho salmon catch prediction (excluding hatchery cost recovery).

X axis = Troll fishery average power troll wild coho catch per boat day for Statistical Weeks 28–29 (July 7–20), which is calculated by adding the average daily catch rate for boats that make a landing in week 28 (July 7–13) and the average daily catch rate for boats that make a landing in week 29 (July 14–20).



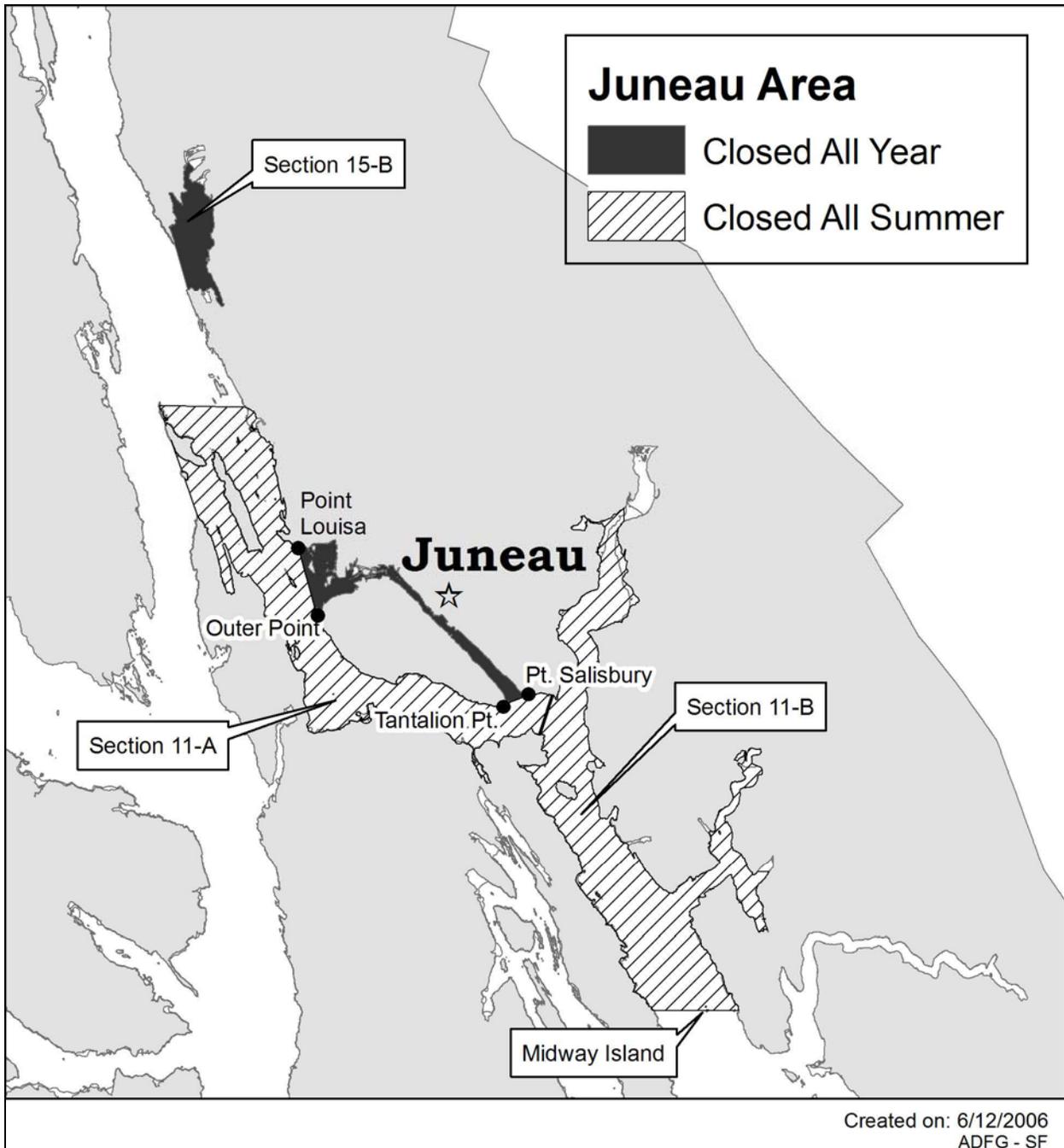
**Figure 5.**—Ketchikan area general summer trolling areas and seasons.

*Note:* This map is for general information only and does not exempt trollers from provisions in 5 AAC 29.150 (CLOSED WATERS) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.



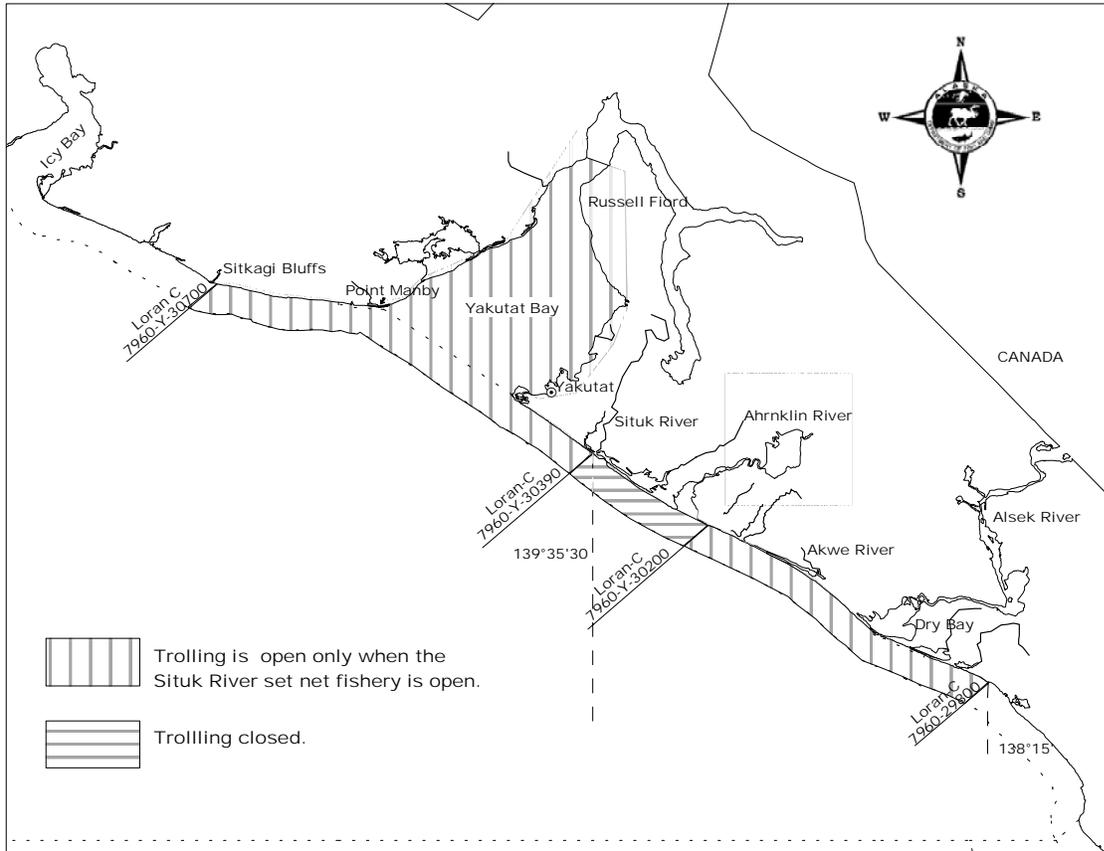
**Figure 6.**—Petersburg/Wrangell area general summer trolling areas and season.

*Note:* This map is for general information only and does not exempt trollers from provisions in 5 AAC 29.150 (CLOSED WATERS) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.



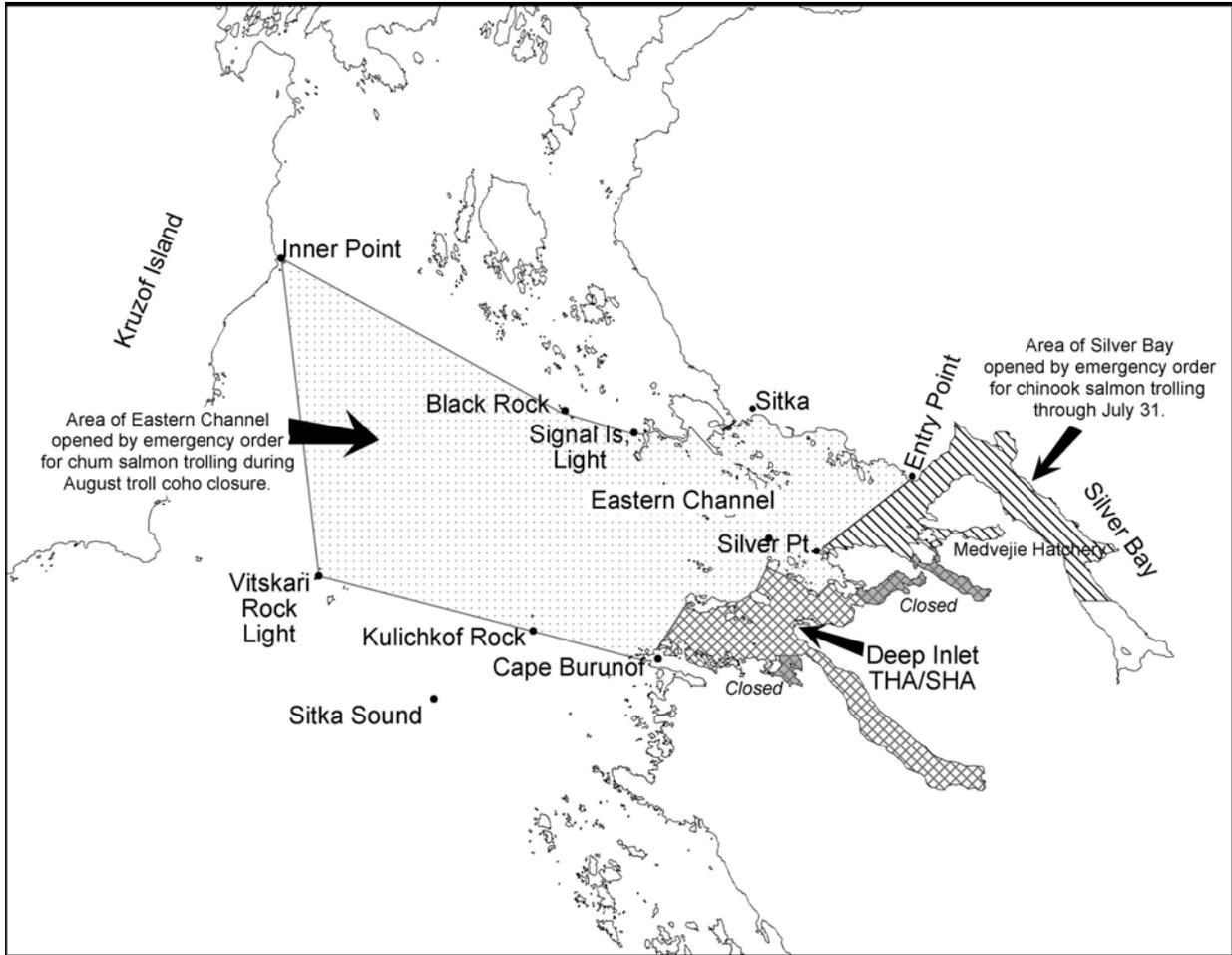
**Figure 7.**–Juneau area general summer trolling areas and seasons.

*Note:* This map is for general information only and does not exempt trollers from provisions in (5 AAC 29.150 (CLOSED WATERS)) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.



**Figure 8.**—Trolling times and areas for the Yakutat area, beginning August 7.

*Note:* This map is for general information only and does not exempt trollers from provisions in 5 AAC 29.150 (CLOSED WATERS) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.

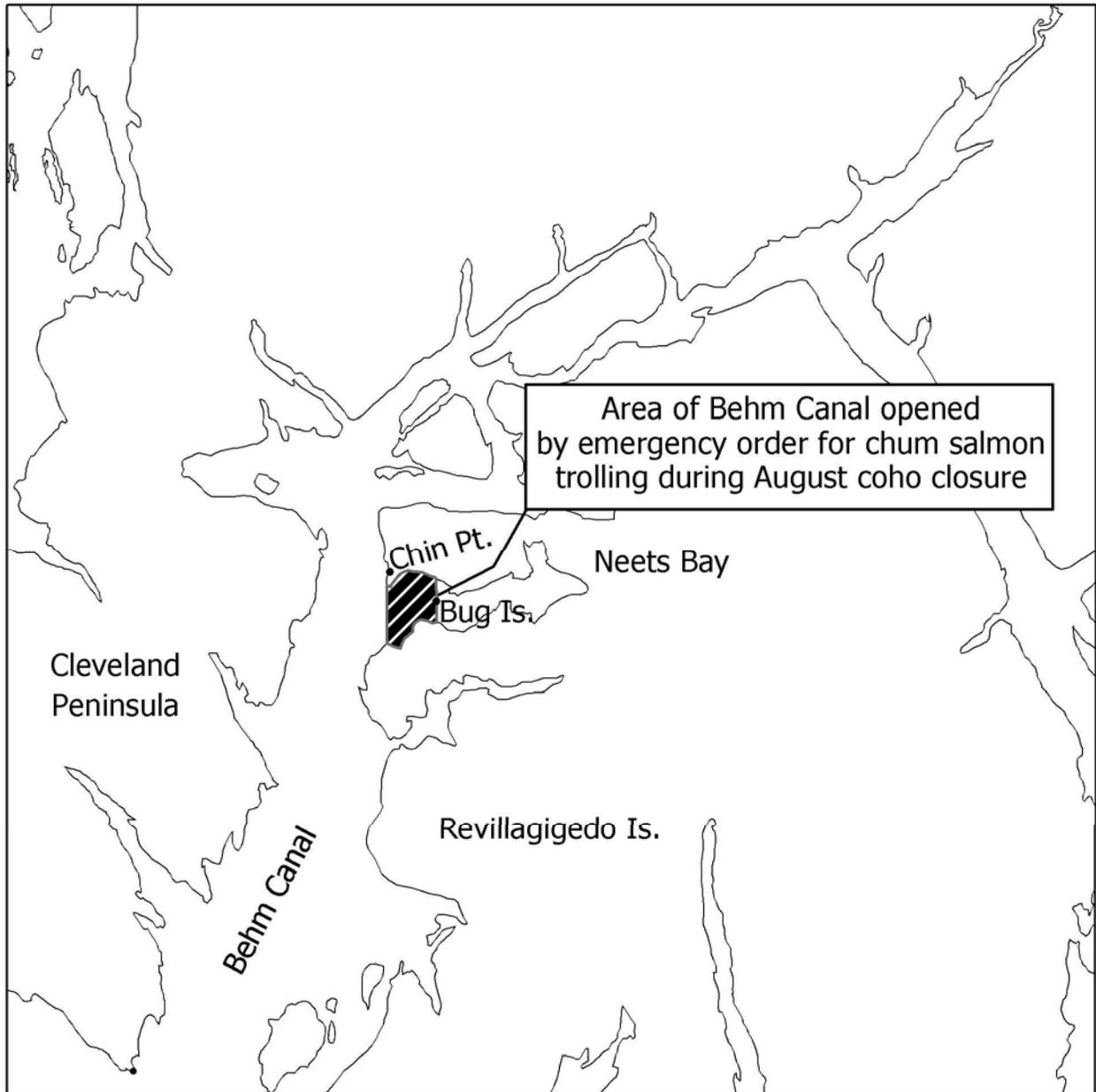


**Figure 9.**—Silver Bay and Eastern Channel Special Harvest Areas and terminal troll areas for chum salmon in Sitka Sound (113-35).

**Figure 9.**—Silver Bay and Eastern Channel Special Harvest Areas and terminal troll areas for chum salmon in Sitka Sound (113-35).

*Note:* The area shown is the area described in 5 AAC 29.112(b). The actual area that will be open by Emergency Order may be different. This map is for general information only and does not exempt trollers from provisions in 5 AAC 29.150 (CLOSED WATERS) or Emergency Orders issued by the Department of Fish and Game.

*Note:* A description of the Deep Inlet THA and schedule of troll openings can be found in the Deep Inlet THA news release issued on June 12, 2007.



**Figure 10.**—Neets Bay Terminal Harvest Area for chum salmon fisheries.

*Note:* This map is for general information only and does not exempt trollers from provisions in 5 AAC 29.150 (CLOSED WATERS) or Emergency Orders issued by the Department of Fish and Game. The general summer troll fishing season applies to those areas not specified in the key or in 5 AAC 29.150.

## FISHERY CONTACTS

The following are commercial fisheries division contacts regarding this management plan:

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Yakutat, Alaska 99689-0049  
(907) 784-3255

For up-to-date troll information, call the 24-hour information line in the Douglas Office at 465-TROL (8765). In addition, the following telephone numbers may be called during the troll fishing season to obtain recorded announcements concerning areas open to trolling.

Ketchikan-(907) 225-6870

Sitka-(907) 747-8765

Petersburg-(907) 772-3700

### **SOUTHEAST ALASKA TROLL WEBSITE**

<http://www.cf.adfg.state.ak.us/region1/finfish/salmon/troll/trolinfo.php>