# 2013 Southeast Alaska Purse Seine Fishery Management Plan

by

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May 2013





**Division of Commercial Fisheries** 

# **Symbols and Abbreviations**

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

# REGIONAL INFORMATION REPORT NO. 1J13-07

# 2013 SOUTHEAST ALASKA PURSE SEINE FISHERY MANAGEMENT PLAN

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# **ABSTRACT**

The Southeast Alaska purse seine fishery is managed according to statute, regulations, emergency order authority, and in consultation with the public and industry through the Purse Seine Management Task Force process. The Alaska Department of Fish and Game issued a preseason forecast for a harvest of 54 million pink salmon for 2013. This forecast for pink salmon, together with historical escapement estimates, fishery performance data, private non-profit hatchery forecasts for chum salmon and other species, are used to establish the management plan. The management plan for the 2013 Southeast Alaska salmon purse seine fishery is described in detail, along with expected run sizes, harvest strategies, and related management issues.

Key words: purse seine, management, pink salmon, chum salmon, coho salmon, sockeye salmon, king salmon, Fishery Management Plan

## INTRODUCTION

This plan describes how the Southeast Alaska salmon purse seine fishery will be managed during the 2013 season and includes expected run sizes, harvest strategies, and related management issues. The plan is based on the Alaska Department of Fish and Game (ADF&G) 2013 preseason pink salmon forecast, historical escapement data, fishery performance data, private non-profit hatchery forecasts, and input through the Purse Seine Management Task Force process. ADF&G area management biologists listed at the end of this document can provide further details regarding the implementation of the plan in their respective areas.

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 terminal harvest areas (THA) at Neets Bay, Kendrick Bay, Anita Bay, Deep Inlet, and Hidden Falls. Although the areas specified above are designated seine fishing areas, specific open areas and fishing times are established inseason by emergency order.

Since statehood, 77% of the salmon harvested in Southeast Alaska commercial fisheries have been caught with purse seine gear. Pink salmon *Oncorhynchus gorbuscha* is the primary species targeted by the seine fleet, therefore most management actions are based on the abundance of pink salmon stocks. Chum salmon *O. keta* are targeted in or near hatchery terminal areas and the majority of the chum salmon harvest originates from hatchery production. Other species of salmon are harvested incidentally to pink and chum salmon. Over the recent 10-year period from 2003 through 2012 the species composition of the purse seine harvest has included 88% pink salmon, 10% chum salmon, 1% sockeye salmon *O. nerka*, and 1% coho salmon *O. kisutch*. King salmon *O. tshawytscha* harvest percentages are insignificant compared with other species.

Tagging studies of adult pink salmon have demonstrated that the stocks in Southeast Alaska exhibit a distinct separation between the northern and southern portions of the region. For purposes of catch tabulation and management, Districts 1–8 are grouped as "Southern Southeast" and Districts 9–14 as "Northern Southeast."

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

# 2013 PINK SALMON FORECAST

The Southeast Alaska pink salmon harvest in 2013 is predicted to be in the *excellent* range, with a point estimate of **54 million fish** (**80% confidence interval: 42–67 million fish**). The categorical ranges of pink salmon harvest in Southeast Alaska were formulated from the 20<sup>th</sup>, 40<sup>th</sup>, 60<sup>th</sup>, and 80<sup>th</sup> percentiles of historical harvest over the 50 year period 1960 to 2010:

Category	Range (millions)	Percentile
Poor	Less than 11	Less than 20 <sup>th</sup>
Weak	11 to 19	$20^{th}$ to $40^{th}$
Average	19 to 29	$40^{th}$ to $60^{th}$
Strong	29 to 48	60 <sup>th</sup> to 80 <sup>th</sup>
Excellent	Greater than 48	Greater than 80 <sup>th</sup>

The 2013 forecast was produced in two steps: 1) a forecast of the trend in the harvest using a time-series technique called exponential smoothing, and 2) the forecast trend adjusted using 2012 juvenile pink salmon abundance data. Juvenile pink salmon abundance data were provided by the National Oceanographic Atmospheric Administration (NOAA) Fisheries, Alaska Fisheries Science Center, Auke Bay Laboratories (Joe Orsi, Auke Bay Laboratories, personal communication). These data were obtained from systematic surveys conducted annually in upper Chatham and Icy straits, in conjunction with NOAA's Southeast Coastal Monitoring Project, and are highly correlated with the harvest of adult pink salmon in the following year (Wertheimer et al. 2011<sup>1</sup>). This is the 7<sup>th</sup> year that the ADF&G forecast was adjusted using these data.

The 2013 harvest forecast of 54 million pink salmon is well above the recent 10-year average harvest of 37 million pink salmon, but is close to the average harvest over the past five odd years. There are two primary reasons to expect that the harvest in 2013 will be higher than the recent average. First, biological escapement goals were met or exceeded in the parent year, 2011, and escapements were well distributed throughout the region. Management targets for pink salmon were met or exceeded for 14 of 15 Districts, and, at a finer scale, for 44 of the 46 pink salmon stock groups. In addition, the NOAA Auke Bay Lab's 2012 peak June–July juvenile pink salmon catch per unit effort (CPUE) statistic from upper Chatham and Icy straits in northern Southeast Alaska ranked in the top third of the 15 previous years that NOAA has collected that information, which may indicate good freshwater and early marine survival for pink salmon set to return in 2013. Pink salmon harvests associated with the top third of indices in the NOAA data set ranged between 45 and 78 million fish. The department will manage the commercial purse seine fisheries *inseason* based on the strength of salmon runs. Aerial escapement surveys and fishery performance data will continue, as always, to be essential in making inseason management decisions.

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<sup>&</sup>lt;sup>1</sup> We gratefully acknowledge the assistance and advice of Joe Orsi and Alex Wertheimer (retired) and their colleagues at the NOAA Auke Bay Laboratories. However, we accept responsibility for this forecast, and we accept sole responsibility for this use of their data.

The statewide harvest forecast, including a complete description of the Southeast Alaska pink salmon forecast, can be found online at:

http://www.adfg.alaska.gov/FedAidPDFs/SP13-03.pdf

The 2013 NOAA pink salmon forecast can be found online at:

http://www.afsc.noaa.gov/ABL/MSI/msi\_sae\_psf.htm.

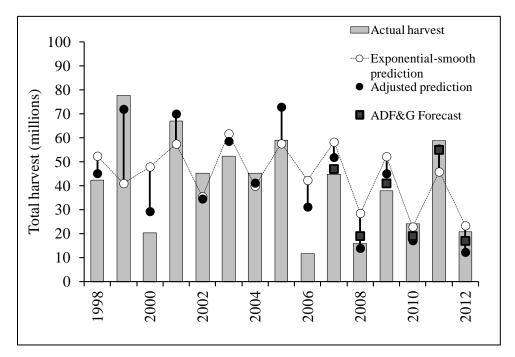


Figure 1.–Annual harvest of pink salmon in Southeast Alaska, 1998–2012, compared to the exponential smoothed hindcast predictions of the harvest adjusted using NOAA Auke Bay Laboratory juvenile pink salmon data.

*Note:* The 2007–2012 ADF&G harvest forecasts were very close to the actual harvests in those years.

Table 1.—Southeast Alaska pink salmon escapement indices (in millions) by district and subregion, compared to management target ranges by district, and biological escapement goal ranges by subregion for the 2013 parent-year of 2011.

			Lower	Upper
Subregion	District	<b>2011 Index</b>	Management Target	Management Target
Southern	101	2.08	1.02	2.71
Southern	102	0.80	0.29	0.77
Southern	103	1.51	0.95	2.54
Southern	105	0.58	0.25	0.66
Southern	106	0.30	0.21	0.57
Southern	107	0.20	0.26	0.69
Southern	108	0.03	0.02	0.06
Northern Inside	109	1.29	0.63	1.50
Northern Inside	110	0.94	0.59	1.41
Northern Inside	111	0.56	0.27	0.65
Northern Inside	112	1.22	0.53	1.26
Northern Inside	Inside 113	0.76	0.32	0.76
Northern Inside	114	0.55	0.15	0.35
Northern Inside	115	0.69	0.03	0.07
Northern Outside	Outside 113	2.73	0.75	2.50

Biological Escapement Goals by Subregion	Total 2011 Index	Lower Escapement Goal	Upper Escapement Goal
Southern	5.50	3.00	8.00
Northern Inside	6.03	2.50	6.00
Northern Outside	2.73	0.75	2.50

## GENERAL MANAGEMENT GOALS

The primary management goals for the 2013 Southeast Alaska purse seine fishery are as follows:

- 1. Obtain overall pink salmon spawning biological escapement goals by subregion, and within subregions obtain escapements consistent with district and stock group management targets to ensure that spawning escapements are well distributed.
- 2. Obtain overall adequate chum salmon spawning escapements and ensure that spawning escapements are well distributed.
- 3. Provide for an orderly fishery while harvesting fish in excess of spawning escapement needs.
- 4. Minimize, to the extent possible, the interceptions of salmon destined for fishing districts where weak returns are expected.
- 5. Promote a harvest of good quality fish within constraints dictated by run size and timing.
- 6. Manage the District 4 purse seine fishery consistent with the provisions of the U.S./Canada Pacific Salmon Treaty.
- 7. Restrict the total purse seine harvest of king salmon (28 inches or larger) no more than 4.3% of the all-gear king salmon catch ceiling established for the 2013 season. Based on

- the 2013 king salmon preseason abundance index of 1.20, the purse seine fishery allocation for the season is 7,568 king salmon.
- 8. Manage the seine fishery in the waters of District 12, north of Point Marsden (along the Hawk Inlet Shore), and in Section 14-C north of the latitude of Porpoise Islands, consistent with the *Northern Southeast Seine Salmon Fishery Management Plans* (5AAC 33.366).

# REGIONAL MANAGEMENT PLAN

#### **EXPECTED FISHING REGIME**

ADF&G will manage the 2013 purse seine fishery inseason based on aerial survey observations and fishery performance data. Initial 15-hour openings will occur on Sunday, June 16, at Hidden Falls, Tenakee Inlet, and Point Augusta. In addition, a portion of lower District 2 along the Prince of Wales Island shoreline near Kendrick Bay from McLean Point Light to Polk Island will open for four days beginning June 16. The first opening in Section 13-C will occur Sunday, June 23 and the first opening in District 10 will occur Sunday, June 30. Initial openings in Districts 1 and 4 can be expected on Sunday July 7. District 7 may also have an initial opening on Sunday, July 7 if observations indicate normal run timing to District 7 streams. Provided early northbound pink salmon returns are strong in 2013, to maximize harvests of surplus pink salmon consistent with the *Northern Southeast Seine Salmon Fishery Management Plans* (5AAC 33.366) the department will consider limiting numbers of openings at the Point Augusta index fishery.

Other areas around the region will open as described in this plan, subject to inseason information. The ADF&G pink salmon harvest forecast is 54 million, with an 80% confidence interval range of 42–67 million. This forecast is quite similar to the NOAA harvest forecast of 54 million, with an 80% confidence interval range of 46–58 million. As always, the department will carefully monitor inseason information, and will manage the fishery to ensure that escapement goals are met, that district and stock group escapement targets are obtained, and that escapements are well distributed.

During 2011, the pink salmon parent year, the common property purse seine harvest of 55.2 million pink salmon was above the long-term average since 1960 of 26.5 million and the recent 10-year average of 36.8 million. Escapements in 2011 were within or above the biological escapement goal ranges in all three subregions. District escapements were met or exceeded for 14 of 15 districts with management targets (excluding District 7). Escapements were below management targets for two of 46 stock groups, within management targets for 39 stock groups, and above management targets for 15 stock groups. The department is prepared to provide additional fishing opportunity when appropriate to harvest surplus returns. The department may expand fishing opportunity from one to two 15-hour periods per week, to 39-hour periods, to 2-days-on/2-days-off, or even to a 5-day fishing cycle as run strength allows.

Although a 5-day fishing cycle remains in the department's suite of options for the fishery, before switching from 2-days-on/2-days-off and implementing a 5-day fishing cycle in 2013, the department will consider whether the potential benefits of an expanded fishing regime are likely to be achieved and therefore to be of benefit to the fishery as a whole. The purpose of expanded fishing remains to: 1) supply processing plants with consistent deliveries of fresh-caught fish to

maximize flesh quality, 2) increase roe recovery, and 3) to maximize the overall value of production. Some considerations on use of the 5-day option are as follows:

- It is generally recognized that processing capacity and fishing effort have increased since 4:1 was initially implemented in 2002.
- In addition to increased effort and processing capacity, it is also recognized that the overall fishing power of the fleet has increased through changes in fishing net technology and vessel size.
- To fully harvest surplus returns at the peak of the season during large runs there could be a need for an accelerated fishing schedule.
- Following early season management, a 2-days-on/ 2-days-off schedule would be implemented, then when the harvest is more certain to reach 43 million or larger, then a 5-day fishing rotation might be implemented.
- The department will have the flexibility to manage areas using different fishing schedules based on geographical differences in run strength, timing, effort, and escapements.
- Five-day fishing schedules of 5:0, 4:1, 3:2, 2:3, or 1:4 may be utilized during the peak of the run.
- The regional closure day should be synchronized regionwide, except in areas that are opened continuously to attract effort.
- If necessary, line changes for specific areas could be announced on 24-hour notice in the middle of a 5-day fishing period, however the department should try to announce that there is a potential for a line change in a prior announcement.

#### **EFFORT LEVELS**

The size of the purse seine fleet will have some impact on the management decisions the ADF&G makes as the season progresses. Effort in 2013 is expected to increase with a higher pink salmon forecast combined with strong enhanced chum salmon forecasts. In 2011, 269 boats made landings out of 379 permits issued by CFEC. In 2012, 235 boats made landings out of 315 permits issued by CFEC. The number of permits issued dropped in 2012 due to a permit buy-back program, and a similar number are eligible to fish during the 2013 season. The recent 10-year average effort in the purse seine fishery from 2003–2012 is 235 permits.

#### **DAILY START TIMES**

For the 2013 season the fishery opening and closing times will be as follows:

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

#### REGULATION MARKERS

Closed waters, stream markers defining closures around salmon streams, and salmon streams (that may not have markers) have been a topic at Purse Seine Task Force meetings over the years and were again discussed at the most recent meeting. Fish and Game Regulation 5AAC 33.350

lists all closed waters in Southeast Alaska. Statewide regulation 5AAC 39.290 was amended at the 2013 statewide meeting of the Alaska Board of Fisheries to read:

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

Also in this regulation the following was adopted:

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

The regulation in (e) above was added to clarify that fishing is prohibited within 500 yards of fresh waters of salmon streams, and not 500 yards from the midpoint of the rivermouth as listed in the anadramous waters catalog.

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

An additional measure adopted at the 2013 statewide Board of Fisheries meeting was amendment of the definition of a salmon stream in 5AAC 39.975. Definitions:

(1) "salmon stream" means any stream used by salmon, at any stage of life, for spawning, rearing, presence, or migration.

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

#### **NEWS RELEASE INFORMATION**

The department will announce each fishery opening by news release. Announcements, in general, will be made more than one full day in advance of the opening to provide a fair start, unless an announcement of shorter duration is needed to prevent the loss of a fishery. In the uncommon situation where the department has already announced a fishery inside of normal markers, if additional line changes are needed during an opening, then the department can make those additional changes but has agreed to notify processors and fishermen in the vicinity of further line adjustments after less than 24 hours of notice. Line changes and time changes differing from prior announcements will be indicated in bold type to highlight those changes. News releases will be available at ADF&G offices throughout Southeast Alaska, posted on the ADF&G web site, and will be available at fish buying locations or other prominent locations throughout the region. ADF&G contact numbers as well as telephone message recordings of the most recent news releases will be listed in the footer at the bottom of each news release.

News releases are organized in numerical order by district, then within a district from the shortest duration opening to the longest duration opening, followed by the current king landing restrictions, information and comments, and a harvest report from the prior fishing period.

At the request of the purse seine task force a single telephone recording of the entire news release broken down into a menu of openings by management area was first implemented in 2007. This system will again be in place for the 2013 season. Fishermen can access this recording by calling (907) 747-8522 and can hear lines and times for the different management areas by dialing 1, 2, 3, or 4 at any time during the call.

# MATURE PINK SALMON FISHERIES

Fisheries targeting mature pink salmon are possible in 2013, if needed to harvest fish that are surplus to escapement needs.

At the request of several processors in 2001, terminal area fisheries were initiated inseason to harvest mature pink salmon in locations where escapement needs had been exceeded and harvestable surpluses were available. These fisheries were directed at harvesting the roe or ikura of pink salmon, as long as the salmon harvested were utilized. Funding to support additional costs to the department were generated by proceeds from test fishing. Additional terminal area fisheries took place in 2003, 2005, and 2007. Harvests from the terminal area salmon roe fisheries has ranged from 70,000 pounds to 2,400,000 pounds during years when fisheries occurred.

No terminal area pink salmon fisheries have occurred since the 2007 season. However, if areas are identified where escapement needs are exceeded and ikura fisheries would be appropriate, the department will announce those opportunities by news release.

ADF&G will continue to look for opportunities for terminal area pink salmon fisheries in 2013, if there is an expressed interest and a market. A key requirement for mature salmon fisheries is that such fisheries must adhere with provisions of 5AAC 93.310 Waste of Salmon, which provides that salmon are not wasted, certain disposals must be authorized, and logbooks may be required. The department will continue to open fisheries so all of the fish can be harvested in the best possible quality in the existing traditional fisheries. However, if certain systems end up with significant numbers of pink salmon that are in excess to all expected spawning needs, openings to target mature fish may occur. It is anticipated that this type of fishery, if it occurs, would

primarily be in late August and early September. It is anticipated that several types of openings may occur to determine what works best for the industry while insuring needed escapement is not jeopardized. Openings of this nature will be announced via standard news releases and will be clearly differentiated from traditional openings. If these fisheries are to continue, test fisheries may be required to cover additional aerial surveys and personnel costs. Before such test fisheries are allowed, the department will first determine if the proceeds from test fisheries can be utilized within the department's authorized test fishing receipt authority without compromising existing programs or other fisheries.

#### KING SALMON HARVEST

ADF&G is required to manage the Southeast Alaska purse seine fishery for a maximum harvest of 4.3% of the annual all-gear king salmon catch ceiling determined under the terms of the Pacific Salmon Treaty [5AAC 29.060 (b)(1)]. Prior to 1997, the purse seine fishery was limited to a fixed quota of 11,400 king salmon (not including Alaska hatchery-produced fish). The purpose of the 1997 regulation was to make management of the purse seine harvest of king salmon more consistent with the abundance-based management approach. The king salmon all-gear catch ceiling is driven by the preseason abundance index that is determined by the Chinook Technical Committee. For 2013, the abundance index is 1.20 and the corresponding purse seine king salmon allocation will be **7,568 fish**.

The Alaska Board of Fisheries (BOF) has adopted size limits [5AAC 33.392] and directed ADF&G to manage the purse seine fishery such that incidental mortality from catch and release is minimized. The specific provisions for management of the seine fishery harvest of king salmon are as follows:

- 1. King salmon taken in the purse seine fishery that are less than 28 inches in length (as measured from the tip of the snout to the tip of the tail) will not be counted against the king salmon harvest quota.
- 2. King salmon greater than 21 and less than 28 inches in length may be harvested by purse seine fishers but not sold.
- 3. Purse seine fishers may possess and sell king salmon that are less than 21 inches (approximately 5 pounds or less).

## KING SALMON IMPLEMENTATION PLAN

Non-retention of 28-inch and larger king salmon has been the primary management measure for maintaining the catch limit. Because the king salmon seine allocation for 2013 is only 7,568 fish, retention of king salmon will not be permitted from the beginning of the season until the time period when the catch rate for other species is high. If the quota is reached, non-retention regulations will also be implemented by emergency order late in the season.

There may be specific terminal areas in which all king salmon may be, or must be, retained. ADF&G intends to implement full retention (5AAC 39.265) from the beginning of the season for net fisheries in the Deep Inlet THA. Due to high expectation of enhanced king salmon harvests from the Hidden Falls THA, retention will be allowed during the initial openings of the Hidden Falls THA until mid–late July when chum harvests in the THA generally decline. Specific retention and non-retention periods will be announced in each seine fishery news release. Additional areas may also be announced via news releases.

During periods of non-retention, purse seine fishermen are encouraged to avoid fishing in areas with high concentrations of king salmon and to quickly release those caught in a manner that minimizes mortality. To ensure small (less than 21 inches) king salmon are not counted against the quota, ADF&G needs the cooperation of the fishing industry. To accomplish this, all king salmon sold that are 28 inches or longer must be specified on fish tickets as species code 410; this is pre-printed on each fish ticket. King salmon 21 inches or less should be indicated on fish tickets as species code 411. This code will need to be handwritten on the fish ticket at the time of sale if it is not pre-printed.

# REPORTING OF PERSONAL USE HARVEST

Fishermen and Processors should be aware that all salmon commercially harvested but retained for personal use and not sold must be reported on fish tickets at the time other fish from an opening are delivered. At the 2012 meeting the Alaska Board of Fisheries repealed regulations for Southeast Alaska that provided for reporting of king salmon and steelhead by emergency order. In effect for the 2013 season will be the statewide regulation 5AAC 39.130 (c) (10) which requires reporting of all commercially harvested salmon retained for personal use.

## **SEASON END**

Concern has been expressed at past purse seine task force meetings regarding the potential loss of fishing opportunity after the department has announced the closure of the purse seine fishing season. The department agreed that the end of the season would be announced following review of catch and escapement data from the final opening. If there are areas that need additional escapement adjacent to areas that do not need additional escapement the department could consider closure lines, if appropriate, as a means to provide for additional escapement while accessing fish returning to areas where escapements have been met. The department did caution fishermen regarding implementation of this plan that the season closure is based on several factors including providing good overall distribution of escapements, higher concentrations of females at the end of the run, incomplete escapement information at the end of the season, and consideration for harvest rates of other species.

# SOUTHERN DISTRICTS PURSE SEINE FISHERY

# 2011 PINK SALMON RETURNS

The Southern Southeast subregion includes all of the area from Sumner Strait south to Dixon Entrance (Districts 1–8). The escapement index value of 5.5 million in 2011 fell within the escapement goal range of 3.0 to 8.0 million index fish. Escapement indices met management targets for all districts except District 7 and for 16 of 18 pink salmon stock groups in this subregion. The Burnett and Anan stock groups were below the lower range of the management target in 2011.

#### MANAGEMENT CONCERNS

Implementation of the 5-day rotation schedule fishing regime strategy that started in 2002 may be used in some locations in southern southeast fishing districts if fish returns are at a level equal to the forecast. However, uncertainties about fleet size, distribution and the department's reaction to those can only be answered inseason. ADF&G and the fishing industry will have to be flexible and be able to react quickly inseason to changes from historical fishing patterns. Above all, meeting escapement goals will continue to be the number-one objective of the department.

Within that conservation mandate, the department will attempt to meet the objective of the modified fishing strategy and provide a more stable supply of fresher fish.

# McDonald Lake Sockeye Salmon

McDonald Lake sockeye salmon were designated a management stock of concern by the Board of Fisheries during the February 2009 Board of Fish meeting due to a long-term decline in escapements. In February 2012, this stock was de-listed due to improved adult escapements and rearing fall fry estimates. The escapement of 72,000 sockeye salmon in 2010 was the largest escapement since 2003, and was followed by escapements of 113,000 sockeye salmon in 2011 and 57,000 sockeye salmon in 2012. The escapement goal of 55,000 to 120,000 fish has now been reached for three consecutive years.

In 2013, the department will conduct inseason monitoring of sockeye catches in both gillnet and purse seine fisheries. The department will be looking for sockeye catches that indicate strong returns of sockeye to West Behm Canal. There may be continued restrictions to the Southern Southeast purse seine, gillnet, and personal use fisheries in an effort to meet the McDonald Lake sockeye salmon escapement goal of 55,000–120,000 sockeye salmon. Specific management actions for the seine fishery may be similar to actions taken during the 2009 through 2011 fisheries in Districts 1, 2, 5, 6 and 7.

Management actions that may be instituted consist of the following:

- The Gravina Island shoreline may be closed north of the latitude of Cone Island during statistical weeks 29, 30, and 31;
- Seine fisheries in West Behm Canal, which have not been significant in recent years, may be limited in 2013;
- The District 6 gillnet fishery may be limited to a maximum fishing time of two days a week for three weeks during statistical weeks 29, 30, and 31;
- The District 2, 5, 6, and 7 seine fisheries may have reduced fishing time during key weeks of the McDonald Lake sockeye salmon run.

ADF&G will continue to estimate the sockeye salmon escapement at McDonald Lake through extensive surveys of the spawning grounds from late August through mid-October. In 2013, the department will be sampling commercial fisheries in Districts 1, 2, and 4–8 for otolith-marked McDonald Lake sockeye salmon from the Southern Southeast Regional Aquaculture Association's sentinel fish project. In addition, the department will conduct genetic sampling of the sockeye salmon harvested in the fisheries that occur in Clarence Strait and Sumner Strait. This sampling will update information about the time and area distribution of McDonald Lake sockeye salmon in those fisheries.

# **Hugh Smith Lake Sockeye Salmon**

ADF&G may take management action if projected escapement levels are below that needed to reach the lower end of the escapement goal of 8,000 sockeye salmon.

#### **Summer Chum Salmon**

In 2009, ADF&G adopted a sustainable escapement goal threshold of 68,000 index spawners for summer chum salmon in the Southern Southeast subregion. This goal was based on aggregate

peak aerial survey counts for 13 index streams in southern Southeast Alaska (Eggers and Heinl 2008). Escapements of summer chum salmon were below this newly adopted escapement goal threshold from 2008 to 2010 and were particularly poor in 2008 when the escapement index was only 19% of the SEG threshold. The poor 2008 summer chum salmon return may have been related to extreme environmental conditions, which included very warm, dry conditions in spawning streams for parent year spawners in 2004, and warm ocean temperatures in 2004 and 2005. Other species of salmon also appeared to be affected by these conditions, e.g., sockeye salmon escapements to Southeast Alaska were extremely poor in 2008 and the region-wide harvest of sockeye salmon was the lowest since Alaska statehood (Eggers et al. 2008)—many of these fish also went to sea in 2005. Escapements of summer chum salmon in southern Southeast Alaska improved in 2009 and 2010, but were still below the sustainable escapement goal threshold. In 2011, escapements of summer chum salmon increased dramatically and the index value was the fourth highest since 1960. In 2012, the escapement goal was revised downward, based on an analysis that incorporated two decades of additional data, to 54,000 index spawners (Piston and Heinl 2011). The department plans to monitor summer chum salmon closely in 2013, but at this time there are no plans for directed management actions to reduce the harvest of wild chum salmon.

#### MANAGEMENT PLAN

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

#### District 4

The early portion of the District 4 purse seine fishery will be managed to comply with the Pacific Salmon Treaty. The agreement calls for managing the Alaskan District 4 purse seine fishery before Statistical Week 31 to:

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

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

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

Although the management intent shall be to harvest salmon at the AAH, it is recognized that overages and underages will occur and an accounting mechanism is required. The management intent for each fishery shall be to return any overages to a neutral or negative balance as soon as

possible. After five years of consecutive overages, a management plan must be provided to the Northern Panel with specific management actions that will eliminate the overage. The accrual of underages is not intended to allow either Alaska or Canada to modify its fishing behavior in any given year to harvest the accrued underage.

Over past years the bilateral NBTC has worked to finalize the total run reconstructions for the Nass and Skeena Rivers. In January and February of 2013 the bilateral Northern Panel accepted the work of the Technical Committee for the run reconstructions of the Nass and Skeena Rivers for the 2010 and 2011 seasons. Information in Table 2 reflects the performance of the District 4 fishery for 1999 through 2011 and preliminary numbers for the 2012 season and a 2013 forecast.

The Canadian Department of Fisheries and Oceans (DFO) has a preseason expectation of approximately 1,132,000 sockeye salmon to the Nass/Skeena Rivers in 2013. This is a combined forecast of 685,000 Skeena River sockeye and 452,000 Nass River sockeye. If the 2013 forecast is accurate then the AAH for District 4 will be approximately 907 Nass/Skeena sockeye salmon (Table 2).

Table 2.—Sockeye salmon allocations for the District 4 purse seine fishery based on Nass and Skeena Rivers allocation calculations, 1999 to 2013.

Year	Nass/Skeena Total Return	Nass/Skeena Escapement	Allowable Nass/ Skeena AAH	Allowable D4 Harvest (2.45%)	Total Pre- Week 31 Sockeye Harvest	Actual Nass/Skeena Harvest	Overage/ Underage Per Year	Cumulative Overage/ Underage
1999	1,771,048	936,705	834,343	20,441	7,664	3,232	(17,209)	(17,209)
2000	5,318,228	1,100,000	4,218,228	103,347	48,969	29,221	(74,126)	(91,335)
2001	4,965,291	1,100,000	3,865,291	94,700	203,090	167,854	73,154	(18,180)
2002	2,776,502	1,051,333	1,725,169	42,267	26,554	18,627	(23,640)	(41,820)
2003	3,306,520	1,100,000	2,206,520	54,060	84,742	44,258	(9,802)	(51,622)
2004	2,621,000	1,100,000	1,521,000	37,265	30,758	19,233	(18,032)	(69,653)
2005	1,770,474	1,000,144	770,330	18,873	35,690	19,442	569	(69,084)
2006	3,650,525	1,100,000	2,550,525	62,488	89,615	68,940	6,452	(62,632)
2007	2,752,074	1,100,000	1,652,074	40,476	112,135	75,615	35,139	(27,493)
2008	2,531,701	1,100,000	1,431,701	35,077	6,262	4,880	(30,197)	(57,690)
2009	1,602,959	1,053,858	549,101	13,453	15,971	10,128	(3,325)	(61,015)
2010	1,395,616	956,954	438,662	10,747	4,617	1,091	(9,656)	(70,671)
2011	2,487,985	1,100,000	1, 387,985	34,006	25,280	16,599	(17,407)	(88,077)
$2012^{1}$	2,877,300	1,100,000	1,777,300	43,544	18,300	12,810	(30,734)	(118,811)
$2013^2$	1,137,000	1,100,000	37,000	907	,	, , , , , , , , , , , , , , , , , , ,		

Note: Underages are shown in parenthesis in this table.

In 2013, the District 4 purse seine fishery will start on Sunday, July 7 by regulation. District 4 will be managed under the Pacific Salmon Treaty annex through July 27, 2013 (Statistical weeks 28, 29, and 30). It is anticipated that the initial opening on July 7 will be 10–12 hours in length. The duration of following openings will be based on sockeye abundance and pink salmon run strength. The amount of effort in the district will also be closely monitored to stay within Pacific Salmon Treaty sockeye allocations. The department will communicate with the DFO on a weekly basis to follow the returns to the Skeena and Nass Rivers so inseason adjustments can be made to the sockeye cap. Starting on Sunday, July 28, 2013 the district will be managed on the strength of returning Southern Southeast Alaska wild salmon.

<sup>&</sup>lt;sup>1</sup>Data for 2012 is preliminary

<sup>&</sup>lt;sup>2</sup>2013 is based on forecasted returns.

If the management regime increases to a 5-day cycle due to strong returns of pink salmon after Statistical Week 30, it is ADF&G's intent to manage the district similarly in terms of boat-days of overall effort to that since the signing of the Pacific Salmon Treaty. Weekly fishing periods in August will be decided only after the department assesses the distribution of the fleet and the run size of pink salmon. In recent years, District 4 was opened for the same amount of time as inside waters after the treaty period; however, that may not be the case in 2013.

# **Inside Fishing Areas**

As in past years, aerial surveys of early-run pink salmon producing areas, primarily Boca de Quadra, east Behm Canal, and Ernest Sound, will begin in late June. Seining is expected to begin initially in a portion of District 2 on Sunday, June 16 to target returning enhanced chum salmon to the Kendrick Bay THA. ADF&G will open a portion of the lower District 2 outside of the Kendrick Bay THA to target Kendrick Bay summer chum salmon at a time when few wild stock chum salmon are available, and to maximize the quality of Kendrick Bay terminal chum salmon. This pre-season fishery is timed to occur prior to the return of pink salmon to the area.

The traditional purse seine fishery will begin on Sunday, July 7 (statistical w eek 28). The initial fishing period will be for 15 hours and will be confined to the southeast portion of Section 1-F, the southern portion of District 2, and possibly, portions of Section 7-A (Anan).

Fishing time will likely begin with a series of 15-hour openings. If run strengths are strong enough to warrant additional fishing time, the fisheries will go from 15-hour to 39-hour openings to 2-on/2-off or more continuous openings. However, extensive openings will not occur if the pink salmon returns are weak. Areas may be opened and closed where additional fishing time is warranted or where a more conservative management strategy is needed.

In District 1, the area from Boca de Quadra to Foggy Point will be managed to reflect recent harvest patterns, effort levels, returns to Boca de Quadra river systems and fishing time. Other areas in District 1, such as the Gravina Island shoreline, will also be managed to take into account other user groups, McDonald Lake sockeye salmon concerns, and the need to achieve evenly distributed escapement of salmon into the Back Behm and West Behm Canal systems.

In District 2, purse seining will be limited to the southern portion of District 2 until escapements of pink salmon to northern Clarence Strait, Ernest Sound, Cholmondeley Sound, and Kasaan Bay can be adequately assessed. Additionally, no purse seining should be expected in middle Clarence Strait, along the Ship Island and Tolstoi Bay shorelines, until run strength of pink salmon returns to West Behm Canal, Thorne Bay, District 6, and Section 7-B are determined. Also, in District 2, the fishing pattern along the Ship Island shore and near Thorne Bay will be managed to reflect historical fishing patterns to take into account other user groups and the need to achieve escapement to Thorne River, McDonald Lake (sockeye salmon), and back Behm and West Behm Canal systems.

Returns of pink salmon to District 3 are expected to be average based on parent-year escapements. Portions of Section 3-A will open in mid to late July if pink salmon harvest in the early District 4 fishery indicates run strength is sufficient. By late July or early August, Sections 3-B and 3-C may also open. Under the fishing periods expected during August it is possible that portions of District 3 may have longer fishing periods than inside districts if there is less effort in some of the more remote areas of the district. Alternately, if there is increased effort and catches

and aerial surveys indicate poor run strength, fishing time and area may be reduced. Due to below average returns in western portions of Section 3-C, initial fishing will most likely occur on the eastern portion of the section until the run strength can be determined.

# Districts 5, 6, and 7

Parent-year pink salmon escapements were within the district wide management targets in Districts 5 and 6, but below management targets for District 7. Openings in these districts are no longer bound by the McDonald Lake Action Plan. However, restrictions similar to the past several years still may occur to ensure the escapement goal of sockeye salmon to McDonald Lake is met. In District 5 (Sumner Strait), seine openings can be expected to occur starting the first week of August. In District 6, the parent year escapements were generally good to the Prince of Wales Island systems but escapements were mixed to the Etolin Island systems. Openings in the Mosman and Burnett Inlets area may be limited due to poor parent-year escapements and may not occur until later in August. Extensive openings along the Ratz Harbor and Screen Island shorelines will likely not occur until the second week of August (statistical week 33). The pink salmon return to Section 7-A is not expected to be good. Openings will be dependent on observations of pink salmon abundance in the area and escapement to Anan Creek. Openings in Section 7-A are not expected to occur before July 7. Openings in the northern portion of Section 7-B may begin during the last week of July only if the pink salmon return is strong. The lower area of Section 7-B, Union Bay, will likely not open prior to August 4. If pink salmon returns are strong, every effort will be made to begin more extensive openings as soon as possible to give industry maximum flexibility for harvesting large returns.

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

Some watersheds along the eastern shoreline of Prince of Wales Island in District 2 produce late run chum salmon that have traditionally supported fall purse seine fisheries, including a directed fishery inside of Cholmondeley Sound. The Cholmondeley Sound fishery is supported by major runs of fall chum salmon at Disappearance and Lagoon creeks, as well as several smaller creeks distributed throughout the sound. No formal forecasts are made for these stocks, and parent-year escapements do not always provide an indication of potential run strength. The total escapement to Disappearance Creek was approximately 61,500 in 2009 (Piston and Heinl 2010), 85,600 in 2010 (Piston and Brunette 2011), 93,000 in 2011, and 54,000 in 2012. The large 2011 escapement (second highest index since 1980) was dominated by 4-year-old chum salmon that were produced by an escapement in 2007 that failed to meet the escapement goal.

The department instituted a general management plan for the fall chum salmon fishery in District 2 for 2012. The sustainable escapement goal range for the Cholmondeley Sound fall chum salmon is 30,000–48,000 fish, based on aggregate peak aerial survey counts for Disappearance and Lagoon creeks. The department will keep Cholmondeley Sound closed to the harvest of chum salmon for all gear groups until a determination has been made that the return for 2013 will provide a harvestable surplus of chum salmon returning to Cholmondeley Sound.

Waters of Cholmondeley Sound south of 55° 15.47 N. latitude (just south of Chasina Island) will be closed to seining, and closed to the retention of chum salmon by trollers from August 15 until on or around September 8 when the first fall chum opening occurs. If pink salmon or chum salmon surpluses occur that would otherwise not be harvested, openings prior to September 8 will occur. In both 2011 and 2012, the first opening occurred before September 8 because surplus chum salmon returned to Cholmondeley Sound earlier than anticipated.

Chum salmon harvests by the purse seine and troll fleet in District 2 during late August pink salmon openings will be closely monitored as an early indication of run strength. Initial aerial surveys of Cholmondeley Sound chum salmon will begin around the end of August.

Approximately 10 days after closure of the directed pink salmon purse seine fishery in District 2, the department will provide a seine opening for chum salmon in waters of Clarence Strait outside of Cholmondeley Sound. This initial opening is expected to occur on or around September 8, unless aerial observations warrant an earlier opening. The opening is expected to be 15 hours or 39 hours in duration. The area that will be open to the purse seine fleet is open continuously for the troll fleet under summer troll regulations.

Additional openings will likely be one or two days in length, depending upon the strength of the run and expected effort levels. Waters inside Cholmondeley Sound will be opened for both gear groups provided adequate numbers of chum salmon are observed in the South Arm and West Arm of Cholmondeley Sound. When Cholmondeley Sound is opened, Sunny Cove and waters of Cholmondeley Sound proper will be closed south of Hump Island. These closures are needed to protect chum salmon escapements in Lancaster, Dora Bay and Kitkun systems, and closure lines may be moved further north than the closures listed in regulations.

Once it is appropriate to initiate fishing inside Cholmondeley Sound, a rotation will be instituted that will include both gear groups. When the purse seine fleet is allowed to fish for one day, the troll fleet will be given one day. If the purse seine fleet is given two days the troll fleet will be given two days. On or around September 15, a second opening will occur if aerial surveys indicate that chum salmon run strength is sufficient to allow harvest in excess to escapement needs. On or around September 22, a third opening will occur if aerial surveys indicate that chum salmon run strength is sufficient.

The summer troll fishing season may be extended from September 21 through September 30, based on coho salmon abundance. During any troll fishery extension in District 2, trolling inside of Chomondeley Sound will be limited to the same number of days as provided for the seine fishery.

ADF&G has opened portions of Section 3-A (Cordova Bay) in recent years to target fall chum salmon. The department may again open portions of Section 3-A in 2013 if there is a surplus of chum salmon. Due to limited fall chum salmon production in Section 3-A, this area will only be opened in conjunction with a District 2 opening.

# **Terminal Hatchery Fisheries**

For the 2013 season, THA purse seine fisheries will occur at Neets Bay, Anita Bay, and Kendrick Bay to harvest fish returning to Southern Southeast Regional Aquaculture Association (SSRAA) enhancement facilities. These THA fisheries will be managed jointly with SSRAA, and in accordance with existing BOF approved management plans. Details regarding the open fishing periods by gear type in each area will be announced via commercial fishery news releases. Table 3 summarizes the expected return to each SSRAA release location.

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

# **Terminal Area-Neets Bay [5AAC 33.370]**

ADF&G, in consultation with SSRAA, will manage Neets Bay to include those waters of Neets Bay from the easternmost point of Bug Island to the closed waters at the head of the bay. From the second Sunday in June (June 9) through August 1, the Neets Bay THA will be expanded to include those waters of Neets Bay east of the longitude of Chin Point to the closed waters at the head of the bay. On August 2, the Neets Bay THA will consist of those waters east of the longitude of the easternmost tip of Bug Island to the closed waters at the head of the bay.

In 2013, SSRAA is expecting a total return of 1,593,000 summer chum, 215,000 fall chum, 225,700 coho, and 22,000 king salmon to Neets Bay.

Neets Bay will be open continuously to troll, purse seine and drift gillnet from May 1 to June 10 unless closed by emergency order. The rotational fishery from June 11 through July 2 according to 5AAC 33.370 was announced on a separate Neets Bay THA news release on April 19, 2013. From July 3 to November 15 no gillnet or purse seine openings are scheduled so that cost recovery can take place. If openings can be scheduled they will be announced by News Release in September or once cost recovery has been completed.

# **Neets Bay THA Calendar**

May 1–June 10, 2013

Open continuously to troll, purse seine, and drift gillnet unless closed by emergency order.

June 11-July 2, 2013

Rotational fishery for drift gillnet and purse seine.

July 3-November 15, 2013

No gillnet or purse seine openings are scheduled during this time so that cost recovery can take place. If openings can be scheduled they will be announced by News Release in September or once cost recovery has been completed.

# Terminal Area–Anita Bay [5AAC 33.383]

The Anita Bay THA in District 7 consists of those waters of Anita Bay west of a line from Anita Point at 56° 13.67' N. latitude, 132° 22.49' W. longitude to 56° 14.26' N. latitude, 132° 23.92' W. longitude.

As amended during the 2012 BOF meeting in Ketchikan, from June 15 through July 10, the waters within one-quarter mile of the northern shoreline of Anita Bay west of a line from 56°12.31' N. latitude, 132°26.22' W. longitude to 56°12.06' N. latitude, 132°26.22' W. longitude and east of a line from 56°11.96' N. latitude, 132°29.58' W. longitude to 56°11.73' N. latitude, 132°29.36' W. longitude will be open.

Waters south and west of the waters specified in the above description will be closed to the harvest of salmon as follows:

- (1) From June 15 through June 25, the waters of the Anita Bay THA that are west of 132° 26.22' W. longitude will be closed to the harvest of salmon;
- (2) From June 26 through July 1, the waters of the Anita Bay THA that are west of 132° 26.98' W. longitude will be closed to the harvest of salmon;
- (3) From July 2 through July 10, the waters of the Anita Bay THA that are west of 132° 28.00' W. longitude will be closed to the harvest of salmon.

In 2013, SSRAA is expecting a total return of 830,000 summer chum, 10,000 king and 17,000 coho salmon. It is anticipated that approximately 415,000 chum, 7,000 king, and 2,000 coho salmon will return to the terminal area and be available for harvesting in the rotational fisheries.

Details of the Anita Bay THA rotational gear fisheries are provided in a news release issued April 11, 2013.

# **Anita Bay THA Calendar**

May 1–June 12, 2013

May 1 beginning at 12:01 a.m., Tuesday through 12:00 noon Wednesday, June 12: open continuously to purse seine, drift gillnet, and troll unless closed by emergency order.

June 13-August 31, 2013

Rotational fisheries for drift gillnet and purse seine.

September 1–November 10, 2013

Beginning 12:01 a.m. Sunday, September 1, 2013, the Anita Bay THA will be open to the harvesting of salmon concurrently by drift gillnet, purse seine, and troll gear. The Anita Bay THA will close for the season at 12:00 noon Sunday, November 10, 2013.

# Kendrick Bay THA-[5AAC 33.377]

The Kendrick Bay THA, which includes the waters of Kendrick Bay west of 131° 59.00' W. longitude, and the waters of McLean Arm west of 131° 57.80' W. longitude, will be open on a continual basis beginning Saturday, June 15, 2013, Statistical Week 24, through September 30. For 2013 SSRAA is expecting a return of 1,470,000 summer chum salmon. Peak catches are expected to occur during statistical weeks 27–29. As in recent years, additional area outside of the THA will be open to target returning hatchery chum salmon at a time when few wild stock salmon are available for harvest. ADF&G will consider additional fishing time and area in District 2 during these early weeks if wild salmon run strength, effort, and other pertinent considerations allow.

Table 3.–Expected 2013 returns to SSRAA enhancement projects by release location.

Species/Run	Release Location	Common property Harvest	Terminal	Total Return
Coho	Herring Cove	13,800	4,600	18,400
Coho	Nakat Inlet	16,200	1,800	18,000
Coho	Anita Bay	11,000	2,000	13,000
Coho	Neets Bay	158,000	67,700	225,700
Coho	Bakewell	27,200	3,000	30,200
Coho	Crystal Lake	2,800	1,900	4,700
Summer Coho	Burnett Inlet	10,000	13,000	23,000
Summer Coho	Neck Lake	52,000	52,000	104,000
King	Whitman Lake	5,400	12,600	18,000
King	Anita Bay	3,000	7,000	10,000
King	Neets Bay	6,600	15,400	22,000
King	Crystal Lake	850	850	1,700
Summer Chum	Neets Bay	318,600	1,274,000	1,593,000
Summer Chum	Anita Bay	415,000	415,000	830,000
Summer Chum	Kendrick Bay	1,029,000	441,000	1,470,000
Summer Chum	Nakat Inlet	330,000	330,000	660,000
Fall Chum	Nakat Inlet	35,000	65,000	100,000
Fall Chum	Neets Bay	53,750	161,250	215,000

# NORTHERN DISTRICTS PURSE SEINE FISHERY

#### 2011 PINK SALMON RETURNS

Parent year pink salmon escapements were slightly above the recommended biological escapement goal range for the Northern Southeast Inside subregion as a whole and within or above management targets for Districts 9–15. For the Northern Southeast Outside subregion, which includes Sections 13-A and 13-B, escapements were above the recommended biological escapement goal range (Table 1). Pink salmon escapements in the 2011 parent year were within or above management target ranges for all 21 stock groups in the Northern Southeast Inside area and for all 7 stock groups in the Northern Southeast Outside subregion.

#### MANAGEMENT CONCERNS

Pink salmon escapements to northern Southeast Alaska during the 2011 parent-year were within or above the management target range in all districts. An early-season management concern will be to prevent excessive interception of salmon stocks in mixed stock fishing corridors (e.g., Icy Strait and West Admiralty) until run strengths to near-terminal and terminal areas can be adequately assessed. ADF&G and the fishing industry will have to be flexible and be able to react quickly in season to changes from historical fishing patterns. Above all, meeting escapement goals will continue to be the number-one objective of the department. Within that conservation mandate, the department will attempt to meet the objective of the modified fishing strategy and provide a more stable supply of fresher fish.

#### **Summer Chum Salmon**

In 2009, ADF&G adopted a sustainable escapement goal threshold of 149,000 index spawners for summer chum salmon in the Northern Southeast Inside Subregion. This goal was based on aggregate peak aerial survey counts for 63 index streams in northern Southeast Alaska inside waters. Escapements of summer chum salmon were below this escapement goal threshold from 2008 to 2011. In 2012, the escapement goal was revised downward, based on an analysis that incorporated two decades of additional data, to 119,000 index spawners (Piston and Heinl 2011). The 2011 escapement was slightly above the revised goal, primarily due to a record count of 23,000 chum salmon at the Endicott River in Lynn Canal. In 2012, chum salmon escapements improved considerably and the index of 177,000 exceeded the escapement goal by a wide margin. The department plans to monitor summer chum salmon closely in 2013, but at this time there are no plans for directed management actions to reduce the harvest of wild chum salmon.

## MANAGEMENT PLAN

The Northern Southeast Alaska purse seine fishery management plan consists of separate segments for the outside areas (Sections 13-A and 13-B), the inside areas, the fall chum salmon fishery, and the Hidden Falls and Deep Inlet Hatchery THAs and the Amalga Harbor (Special Harvest Area (SHA) fisheries.

# **Fishing Regime Implementation**

If run strengths are strong enough to warrant additional fishing time, the fisheries will go from 15-hour and 39-hour openings to 2-on/2-off or more continuous openings. Implementation of a five-day fishing regime will depend on the inseason region-wide projection of total harvest exceeding 43 million pink salmon and area specific run strength and effort levels. If a five-day

schedule is implemented, managers will adopt the five-day fishing schedule to the needs of meeting escapement goals in specific areas that might include a fishing schedule of 5:0, 4:1, 3:2, 2:3, and 1:4.

# **Inside Fishing Areas, Early Runs**

The 2013 seining season will begin on Sunday, June 16, with initial open periods of 15 hours to access hatchery summer chum and to index the strength early pink salmon returns. During the first open period, seining will be allowed in portions of District 12 in Tenakee Inlet and Point Augusta in Chatham Strait; the opening will be in conjunction with the first opening at the Hidden Falls Terminal Harvest Area.

Escapements of summer chum salmon for the 2008 and 2009 parent years in Tenakee Inlet were mostly below average. Although no formal forecasts are made for these stocks, some expectations can be based on parent-year escapements. Escapements in 2008 were generally stronger than the main parent year of 2009, which was approximately 22% of the previous ten year average.

The 2011 parent-year pink salmon escapement index for Tenakee Inlet of 0.34 million fish is above the lower bound of the management target range of 0.21 million fish as well as the 10-year average index count of 0.28 million fish. In 2013, the upper portion of Tenakee Inlet may be opened and fishing will continue as long as escapement continues to build adequately. Portions of the Basket Bay shoreline may be opened to harvest pink salmon returns to Tenakee Inlet and Peril Strait if escapements to local streams are adequate, including escapement of Kook Lake sockeye. Commercial seining has routinely been closed within 4 nautical miles of state marine waters around the entrance to Basket Bay to manage for sockeye escapement to Kook Lake and for the Basket Bay subsistence fishery.

The 2011 parent-year escapement index for Section 13-C was 0.76 million, equivalent to the upper range management target for this stock group. The first opening in Section 13-C will be June 23. Subsequent openings will be predicated on openings at Hidden Falls, fishery performance and observations of pink salmon abundance. Seine openings to target chum salmon will be based on inseason assessment of abundance. Parent-year summer chum salmon escapements to Section 13-C streams were weak in 2008 and 2009.

The parent-year escapement index for District 10 was 0.94 million pink salmon, within the management target range of 0.59–1.45 million fish was and was very good throughout the district. The mainland portion of District 10 is scheduled to open on Sunday, June 30. The parent-year escapement index for Seymour Canal (Section 11-D) of 0.31 million pink salmon is within the management goal range of 0.16 to 0.40 million, and above average. Openings in lower Seymour Canal may occur depending on the development of escapements to local streams.

Commercial seining directed on early-run pink salmon returns will be based upon aerial survey and fishery performance assessments of run strength. Aerial surveys to evaluate run strength will begin in late June for the northern inside fishing districts. To provide an additional assessment of incoming run strength of early-run pink salmon the department will open a one-mile area along the Point Augusta shoreline in District 12 in conjunction with other weekly openings. Test fishing will be conducted at Point Gardner and Kingsmill Point to assess the strength and timing of the pink salmon returns entering Frederick Sound. The Point Gardner test fishery will start on or about June 26 and the Kingsmill Point test fishery will start on or about July 3. Both test

fisheries are scheduled to occur weekly through the month of July. Test fishing will also occur along the Hawk Inlet Shoreline beginning on or about June 28 to assess the strength of pink salmon returns entering the northern inside waters of Districts 11 and 15. Incidental harvest of pink salmon at the Hidden Falls Hatchery terminal fishery during the first three weeks of the season will also be monitored as an indicator of pink salmon run strength.

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

# **Inside Fishing Areas—Middle and Late Runs**

Middle-run pink salmon returns should begin entering the inside waters of the northern districts during July. Seining in District 12 along the west Admiralty Island shoreline typically expands in late July, depending on the observed run strength of pink salmon stocks in District 10 and 11, and continues as long as Chatham Strait and Fredrick Sound escapements develop satisfactorily. Southern boundaries for the fishery are typically extended into statistical area 112-17, from Point Hepburn to Fishery Point and then to Parker Point, in either the last week of July or in early August. Because Kanalku sockeye salmon transit through this area in June and July, and because the Kanalku sockeye stock is an important subsistence salmon resource, the department consistently closes an area of approximately nine nautical miles along the west Admiralty shoreline from Parker Point to Point Samuel for an extended period into early August. Parentyear pink salmon escapements were within management target ranges for streams on the northern Chatham Strait shoreline of Chichagof Island and the west Admiralty shoreline. Openings along these shorelines will depend on developing returns of local stocks as well as Peril Strait and Tenakee Inlet stocks. Fishing may begin in this area in mid to late July depending on the observed run strength.

Seining is expected to begin in Section 9-A near Red Bluff Bay in late-July, and in mid-August in Section 9-A south of Patterson Point. Parent-year escapements of pink salmon to Red Bluff Bay were at the upper management target range and openings can be expected. July openings will include only the shoreline north of Red Bluff Bay in order to provide for escapement needs as well as subsistence uses at Falls Lake. Openings to the south of Red Bluff Bay may occur beginning in early August, depending upon pink salmon abundance. If pink salmon escapements into Red Bluff Bay are sufficient, openings inside of the bay may occur to harvest pink salmon surplus to escapements. In Section 9-A south of Patterson Point, the parent-year pink salmon escapement index was 0.19 million, above the upper management target range of 0.16 million. Openings may occur beginning in mid-August, depending upon inseason observations of pink salmon abundance. Openings in Section 9-A south of Patterson Point will include only those waters north of Armstrong Point.

Parent-year escapements of pink salmon were very good in Section 9-B. Parent-year escapement was excellent to the Kuiu Island systems but mediocre to the southwest Admiralty Island section of 9-B. Openings in Section 9-B could start as early as July 25. The escapement index for all of District 9 was 1.29 million fish, within the 0.63 to 1.50 million management target range.

Pink salmon escapement in District 14 was above the management target range in 2011. As a result, openings to harvest local stocks at Idaho Inlet and Port Althorp are expected to occur in late July or early August. To try to attract effort to these remote areas, fishery openings in these locations may be announced out of cycle before or after regionwide openings. The decision when these remote areas will be open will be based on inseason information. The Whitestone shoreline area in District 14 may open in late July or early August with fishing times and areas dependent upon observed strengths of local pink salmon stocks. The department will also monitor pink salmon escapements in streams adjacent to Porpoise Islands along Homeshore and will consider seine openings in this area if there is a harvestable pink salmon surplus to escapement needs.

Openings in District 12 along the Catherine Island shoreline and in portions of Kelp Bay may occur beginning from mid-July to early August to harvest surplus pink or chum salmon returning to Kelp Bay streams or to harvest surplus chum salmon returning to the Hidden Falls if wild chum and pink salmon escapements are being met. The parent year escapement index of pink salmon to Kelp Bay streams was 0.23 million, well above the 0.14 million upper management target range. Openings to harvest surplus pink salmon will be based on inseason assessment of run strength. Odd-year pink salmon returns to Kelp Bay systems have been relatively early in recent odd-years, overlapping summer chum salmon returns. Chum salmon abundance will also be considered in determining appropriate time and area. Parent-year chum salmon escapements to Kelp Bay streams were fair to good. Since 2002, chum salmon escapements to Clear River have been well below historic levels.

# **Hawk Inlet Shore Fishery**

The Admiralty Island shoreline between Funter Bay and Point Marsden in Chatham Strait is known as the Hawk Inlet shoreline. Purse seine fishing is allowed in this area to harvest pink salmon stocks migrating northward to Taku River, Lynn Canal, and Stephens Passage. During July, the department will manage the Hawk Inlet Shore fishery in accordance with the *Northern Southeast Seine Fishery Salmon Management Plans* (5AAC 33.366). This plan stipulates that any portion of the area north of Point Marsden may be opened when a harvestable surplus of pink salmon is observed. Openings must also consider the conservation of all species, and the area must be closed in July after 15,000 wild sockeye salmon have been harvested. In January 2006, the Board of Fisheries clarified that only the harvest of wild sockeye salmon would count toward the 15,000 fish cap.

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

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

1. Parent-year escapement of pink salmon stocks for Lynn Canal, Stephens Passage, and Taku River. Lower Lynn Canal and Stephens Passage escapements were both above the management target range, and were respectively 166% and 191% of the previous 10-year average. The Taku River fish wheel pink salmon catch was 122% of the odd-year average.

- 2. Inseason test fishing at designated locations along the Admiralty Island shoreline north of Point Marsden.
- 3. Inseason aerial assessments of pink salmon abundance along the Admiralty Island Shoreline north of Point Marsden.
- 4. 2013 pink salmon catches in the department's Taku River fish wheels.
- 5. 2013 pink salmon marine sport fish catch rates in the Juneau area (lower Lynn Canal and upper Stephens Passage).
- 6. 2013 fishery performance of District 11 and District 15 drift gillnet fisheries.

In 2003, the Alaska Board of Fisheries adopted a department proposal codifying the sockeye salmon reporting requirements for the Hawk Inlet shoreline fishery. The provisions of that proposal encapsulated the agreement reached between net gear groups during the January 1994 meeting in Ketchikan. The regulation is summarized below:

"All sockeye salmon harvested by any seine boat the department identifies as fishing north of Point Marsden during any July fishing period when other nearby areas (i.e., Point Marsden to Point Hepburn, Whitestone Shore, or the Point Augusta Test Fishery) are open concurrently, will be counted against the 15,000 sockeye salmon quota for the Hawk Inlet fishery north of Point Marsden. During the openings, the department will utilize fishery overflights, on-the-grounds sampling, and interviews to estimate the sockeye salmon harvest north of Point Marsden."

The purpose of this change was to provide the department with more flexibility to open areas adjacent to the Hawk Inlet shore fishery (e.g., south of Point Marsden, Point Augusta, and Whitestone Shore) when pink salmon run strength warrants. Based on good parent year escapements to District 11 and 15, the department anticipates opening this shoreline to purse seine fishing in 2013.

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

Management of Sections 13-A and 13-B, along the outer coasts of Baranof and Chichagof Islands, is distinct from the management of the northern inside areas. Salmon returning to these areas enter directly from the ocean and do not pass through major inside migration corridors. In Section 13-A, parent-year pink salmon escapement indices were above management target ranges for the Lisianski and Portlock stock groups, and within the management target ranges for Slocum Arm and Salisbury Sound stock groups. Openings can be expected to begin around the third week in July depending upon observed pink salmon abundance. In Section 13-B, parent-year pink salmon escapement index for Sitka Sound was well above the upper management and within management target ranges for West Crawfish and Whale Bay. Seine fisheries can be expected in all of these areas depending on inseason observations. Purse seine openings could begin as early as mid-July.

Extended or continuous fishing opportunities may be provided on specific stock groups in Sections 13-A and 13-B if run size and fleet distribution allow for it. Consecutive 15-hour openings will also be considered as a management option to 39-hour or continuous openings at intermediate run sizes in order to ensure escapement needs will be met.

Summer chum salmon returns will be monitored to determine run strengths beginning in early July. If harvestable surpluses can be identified, seiners may expect portions of Sections 13-A and 13-B to be open by mid-July. Openings are possible in Whale Bay, West Crawfish Inlet, Slocum Arm, and Portlock Harbor.

Short purse seine openings to harvest sockeye salmon along the outer coast of Baranof Island may occur in early July to target fish returning to Necker Bay, and in early August to target returns to Redfish Bay. Openings will be dependent on inseason observations of run strength and a cautious approach will be used to ensure that escapement needs and subsistence fishery needs are met. Targeted sockeye salmon openings are also a possibility at Redoubt Bay between July 15 and August 31 provided that the inseason forecast, based on historic run timing and inseason enumeration of sockeye salmon through a weir operated by the United States Forest Service, indicates that an escapement greater than 40,000 will occur.

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

Portions of Northern Southeast Alaska support returns of fall-run chum salmon that are harvested by purse seine gear. Fishing opportunities are not expected in Port Camden due to continued low returns. Fishing in Security Bay usually occurs the first week in September if the observed run strength is good. Escapements in Security Bay were good in both the 2008 and 2009 parent years. Fishing opportunities in Excursion Inlet may occur in late August or early September dependent on returning run strength. Parent-year escapements to Excursion River were at the upper end of the management goal range in 2008 and well below the lower bound of the range in 2009. Escapements in 2008 were 101% of average and the primary brood year of 2009 was 18% the previous ten-year average. Southwest Admiralty streams do not have a good time series of survey data relating to fall chum salmon escapement. Therefore the department may provide some short openings in this area to test the run strength and will monitor fall chum salmon escapements to these systems opportunistically. Targeted seine fisheries will occur if harvestable surpluses are identified. In Section 13-B, targeted fall chum salmon openings may occur in Nakwasina Sound and Katlian Bay, however opportunities are most often concurrent with pink salmon fisheries in Sitka Sound. Fall chum salmon fisheries will be managed based on observations of run strength in the bays beginning in mid-August and continuing through September.

# **Hidden Falls Terminal Hatchery Fishery**

The Hidden Falls Hatchery, operated by the Northern Southeast Regional Aquaculture Association (NSRAA), expects a return of approximately 1,315,000 chum salmon in 2013. NSRAA needs 160,000 chum salmon for broodstock leaving 1,155,000 chum salmon available for common property harvests. This will be the second season NSRAA intends to use a tax assessment on the common property harvest of chum salmon to provide for cost recovery needs as provided for under AS 16.10.455. For the 2013 season, the NSRAA Board has recommended to the Department of Revenue an assessment rate of 20% of the ex-vessel value of chum salmon. The Alaska Board of Fisheries adopted regulations during the 2012 meeting in Ketchikan which provides that the department may, by emergency order, open a joint common property/cost recovery special assessment fishery for chum salmon as specified in AS 16.10.455 within an area defined as the waters of Section 12-A south of 57° 27.00' N. latitude, north of 57° 01.00' N. latitude and west of a line from 57° 27.00' N. latitude, 134° 45.50' W. long. to 57° 01.00 N. latitude, 134° 41.50' W. long. from June 15 through July 31. This means that all chum salmon

landed from a vessel that reports on the fish ticket all or a portion of the harvest from Subsection 112-11, 112-21, or 112-22 during the period of June 15 through July 31 will be assessed the tax. Fish ticket reporting requirements will be strictly monitored and enforced to ensure compliance with the tax assessment program. NSRAA will be deploying observers on the grounds to document participating vessels to further facilitate enforcement.

The first seine opening at Hidden Falls is scheduled for June 16. In the event that a large abundance of chum salmon develops early, the Hidden Falls THA may open prior to June 16. As usual, seiners are advised that openings at Hidden Falls during the 2013 season may be announced with a minimum 24-hour notice, if necessary, in order to maximize fish quality. Under the tax assessment plan, mid-week opening can be expected throughout the return unless closures are necessary to meet broodstock requirements.

The *Hidden Falls Hatchery Terminal Harvest Area Management Plan* (5AAC 33.374) provides guidelines for allocation of hatchery produced chum and king salmon in the Hidden Falls THA. The management plan sets forth different management approaches through June 30 and beginning July 1. If it becomes necessary to close a purse seine fishery to chum salmon that is scheduled in this plan in June in order to achieve broodstock goals, then troll retention of chum salmon in the THA will be prohibited as long as at least seven days remain until July 1. Troll non-retention of chum salmon would occur in June in the event that there is no purse seine fishery on June 16, 20, or 23<sup>rd</sup>. Also, provided that some trollers are present, in order to allow increased troll access to king salmon, Kasnyku Bay will be closed to purse seining in June west of a line from North Point to the westernmost tip of Round Island and north of the latitude of the westernmost tip of Round Island. Beginning July 1, areas within the THA may be closed to protect chum or king salmon broodstock, and trollers may only retain chum salmon in numbers not exceeding the total number of king salmon on board.

The Hidden Falls terminal harvest area boundary definition is being modified to provide for easier enforcement and compliance with the THA boundaries. Rather than the use of range markers at the northern and southern boundaries, these boundaries will be defined by points indicated by markers on the Baranof Island shoreline to offshore coordinates. A line between the two offshore coordinates will also define the outer boundary as a straight line approximately two miles offshore Baranof Island. Additionally, during the Purse Seine Task Force meeting in December, 2010, seiners requested that the southern boundary of the THA be moved a short distance to the south to provide for easier use of a hook-off point that currently lies on the traditional boundary line and the department agreed to move the boundary line south approximately 150 yards. The new definition will describe the Hidden Falls THA as the waters of Chatham Strait, Kasnyku Bay, and Takatz Bay, within the boundaries of a line from South Point, as indicated by a marker at 57° 16.28' N. latitude, 134° 51.78' W. longitude to a point offshore at 57° 16.28' N. latitude, 134° 48.00' W. longitude, then running south to a point at 57° 06.76' N. latitude, 134° 43.00' W. longitude then due west to a point on the Baranof Island shoreline, approximately one mile south of Takatz Bay, at 57° 06.76' N. latitude, 134° 47.50' W. longitude. During some years, the boundary of the Hidden Falls THA has been extended north to include Kelp Bay and the Catherine Island shoreline south of the Point Lull light when wild chum salmon escapements to Kelp Bay streams have been strong and there are indications of good pink salmon abundance in the Chatham Strait corridor. A contraction of the offshore boundary of the Hidden Falls THA to less than two miles off of the Baranof Island shoreline may occur if pink salmon escapements to neighboring areas are lacking and are unlikely to meet escapement goals. Any boundary expansions or area contractions will be determined based on inseason observations of run strength.

# **Deep Inlet Terminal Hatchery Fishery**

The terminal hatchery fishery at Deep Inlet will be managed jointly with NSRAA and according to BOF management plans. The open seine and gillnet fishing times and any modifications of the terminal fishing area will be announced by ADF&G news releases prior to, and during the fishing season.

# Terminal Area–Deep Inlet [5AAC 33.376]

NSRAA expects a return of 1,370,000 chum salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2013. The cost recovery goal for Deep Inlet will be approximately 150,000 fish and broodstock needs are approximately 70,000 fish allowing for a common property harvest of approximately 1,150,000 chum salmon by purse seine, drift gillnet, and troll gear. The majority of the common property harvest can be expected to occur in the Deep Inlet THA by drift gillnet and purse seine gear, but significant harvest occurs outside the THA in traditional troll and purse seine fisheries as well.

The Deep Inlet THA fishery will be managed jointly with NSRAA, and in accordance with the *Deep Inlet Terminal Harvest Management Plan* (5AAC 33.376). The plan provides for the distribution of the harvest of hatchery-produced salmon between the purse seine and drift gillnet fleets. The Alaska Board of Fisheries, during the February 2012 meeting, adopted regulations that continue the 1:1 time ratio of gillnet fishing time to purse seine fishing time beginning the third Sunday in June that has been in place since 2009. The time ratio of gillnet fishing time to purse seine fishing time during king salmon management prior to the third Sunday in June will remain 2:1.

The NSRAA board has developed the following schedule for the season. Beginning on May 26 and continuing through June 15, the schedule will include four days of gillnet and two days of seine per week to harvest returning hatchery king salmon. The Board of Fisheries adopted a regulation closing a portion of the Deep Inlet THA west of 135° 20.75' W. longitude to net gear beginning with the first opening of the season through the third Saturday in June to provide access to this area by troll gear. Beginning June 16, the THA will be opened to three days of seine and three days of gillnet per week and will remain on this schedule through July 26. Beginning July 28, seining will be open for 22.5 continuous hours beginning at 5:00 a.m. Sunday and Thursday of each week, and gillnetting will occur for the normal 15-hour periods on Monday, Tuesday and Saturday of each week. The NSRAA Board provided this schedule which maintains the mandatory 1:1 time ratio between seine and gillnet but has the desired outcome of allowing gillnet gear to have one day per week (Saturdays) when no seine fisheries have been opened the previous day. This schedule will remain in effect through the remainder of the season except that the openings will start at 6:00 a.m. beginning August 18. No closures of the Deep Inlet THA are anticipated and closures will only occur if necessary to meet broodstock requirements. If a closure becomes necessary, NSRAA will attempt to schedule the closure after a gillnet day and reopen with a seine day after providing one day of trolling giving 24-hour notice prior to opening to trolling.

The following rotational fishing schedule will be in effect for the 2013 season:

May 26–June 15:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine	Gillnet	Gillnet	Seine	Gillnet	Gillnet	Troll
From June 16-July 27:						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine	Gillnet	Gillnet	Gillnet	Seine	Seine	Troll
From July 28 until the end of the season:						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine (22.5 hrs)	Gillnet	Gillnet	Troll	Seine (22.5 hrs)	Troll	Gillnet

A detailed initial schedule for common property harvest in the THA is available in a news release issued April 3. When changes are necessary the revised schedule will be issued in a subsequent news release.

Cost recovery management is planned such that NSRAA may conduct cost recovery in the Deep Inlet Special Harvest Area (SHA) and in the Silver Bay SHA. In January of 2006, the BOF implemented changes to Deep Inlet SHA and Silver Bay SHA. The Silver Bay SHA was expanded to include most of Silver Bay and Eastern Channel east of a line from Makhnati Island to Sentinel Rock to Cape Burunof through July 21 and after the troll coho salmon closure in August or August 20 if there is no August coho salmon closure. From July 22 until the end of the August troll coho salmon closure, or August 20 if there is no August coho salmon closure, the Silver Bay SHA includes the waters of Eastern Channel and Silver Bay east of Galankin Island to Silver Point and the waters of Sitka Sound enclosed by a line from the southernmost tip of Galankin Island, to Simpson Rock Light, to the Makhnati Island Buoy, to Black Rock, to the southernmost tip of Neva Island, to the northernmost tip of Sasedni Island and from the southernmost tip of Volga Island to the northernmost tip of Galankin Island. The Deep Inlet SHA is defined in 5AAC 40.042 (a) (7) and includes all the waters of the Deep Inlet THA except that the western boundary of the SHA has now been moved westward to also include the waters enclosed by a line from the westernmost tip of Cape Burunof to a point west of Cape Burunof at 56° 59.11' N. latitude, 135° 23.59' W. longitude, to a point one-mile west of the westernmost tip of Long Island at 57° 00.17' N. latitude, 135° 22.69' W. longitude to the westernmost tip of Long Island.

The terminal harvest area during the 2013 season will be as follows:

**Deep Inlet THA**: Deep Inlet, Aleutkina Bay, and contiguous waters south of a line from a point west of Pirates Cove at 56°59.35' N. latitude, 135°22.63' W. longitude, to the westernmost tip of Long Island to the westernmost tip of Emgeten Island to the westernmost tip of Error Island to the westernmost tip of

Berry Island to the southernmost tip of Berry Island to the westernmost tip of the southernmost island in the Kutchuma Island group to the easternmost tip of the southernmost island in the Kutchuma Island group to the westernmost tip of an unnamed island at 57°00.30' N. latitude, 135°17.67' W. longitude, to a point on the southern side of the unnamed island at 57°00.08' N. latitude, 135°16.78' W. longitude, and then to a point on the Baranof Island Shore at 56°59.93' N. latitude, 135°16.53' W. longitude with the following restrictions:

# **Sandy Cove:** will be closed.

During the 2013 season, the boundaries of the Deep Inlet THA may be changed by NSRAA and ADF&G to help resolve conflicts between fishermen and local private landowners in the area if they occur. Conflicts can be avoided by reducing boat wakes in areas near private docks, by reducing excessive noise and lights prior to openings, and by anchoring well away from private residences.

In order to promote full utilization of salmon, to prevent waste of salmon, to determine harvest patterns of incidentally harvested coho and sockeye salmon, and to allow full and accurate reporting of returns, the Deep Inlet THA fishery will be managed in 2013 by emergency order under authority of 5AAC 39.265 Full Retention and Utilization of Salmon. This requires that all salmon harvested in net fisheries are retained, utilized, and reported on fish tickets whether they are sold or retained for personal use.

In early September, the Deep Inlet THA boundaries may be adjusted by ADF&G to reduce interception of wild coho salmon returning to Salmon Lake or hatchery coho salmon returning to Medvejie Hatchery needed for broodstock. THA boundary adjustments to protect coho salmon will be based on historic run timing and inseason observations of abundance. Since voluntary compliance with reporting of coho salmon in the Deep Inlet THA fishery has in the past been poor and the department needs detailed information on coho and sockeye salmon harvest patterns, personnel from ADF&G or Alaska Wildlife Troopers may board some vessels and conduct hold inspections to ensure compliance.

## **Gunnuk Creek Hatchery Returns**

Chum salmon returns to Gunnuk Creek Hatchery at Kake and Southeast Cove on northeast Kuiu Island in Keku Strait are predicted to be good in 2013. These returns occur primarily in July and are taken incidentally in seine fisheries in Chatham Strait and western Frederick Sound during that time period. A total return of 647,000 chum salmon is expected. In addition to chum salmon, Gunnuk Creek Hatchery is expecting a total return of 389,000 pink salmon and 11,600 coho salmon.

# Amalga Harbor Special Harvest Area Experimental Fishery

In order to increase the common property share of enhanced chum production, Douglas Island Pink and Chum, Inc. (DIPAC) will be continuing with experimental common property purse seine fisheries in the Amalga SHA in 2013. Openings may occur in Section 11-A and will be limited to a portion of the Amalga Harbor SHA, subdistrict 111-55. These fisheries may occur in July, will only be on Thursdays, and will be limited to 6 hours (9:00 a.m.—3:00 p.m.). Decisions about these openings will be based on returning run strength of enhanced chum, progress towards cost recovery goals, expected effort levels, and considerations for non-target species.

Details of the open area and times will be included in the normal purse seine news releases at the appropriate time.

Table 4.–Expected 2013 returns to Northern Southeast Alaska area enhancement projects by hatchery organization and release location.

		Common Property			
Species	Release Location	Harvest	Cost Recovery	Broodstock	Total Return
		NSRAA			
Chum	Medvejie/Deep Inlet	1,150,000	150,000	70,000	1,370,000
Chum	Hidden Falls	1,155,000	0	170,000	1,315,000
King	Medvejie/Deep Inlet	18,200	7,800	4,000	30,000
King	Hidden Falls	10,300	0	2,000	12,300
Coho	Hidden Falls	59,300	84,700	10,000	154,000
Coho	Deer Lake (Mist Cove)	68,200	55,800	NA	124,000
Coho	Deep Inlet	5,950	1,050	NA	7,000
		Armstrong Keta, In	с.		
Pink	Port Armstrong	728,000	807,000	120,000	1,655,000
Chum	Port Armstrong	90,000	320,000	40,000	450,000
Coho	Port Armstrong	60,000	57,000	3,000	120,000
King	Port Armstrong	1,100	2,000	600	3,700
		Sitka Sound Science Co	enter		·
Pink	Crescent Bay	36,000	19,000	5,000	60,000
Chum	Crescent Bay	13,800	6,100	3,100	23,000
Coho	Crescent Bay	1,000	450	200	1,650
King	Crescent Bay	0	0	0	0
		Gunnuck Creek Hatch	nery		
Chum	SE Cove	192,000	289,000		481,000
Chum	Kake	66,500	0	99,500	166,000
Pink	Kake	155,500	213,000	20,500	389,000
Coho	Kake	5,800	5,300	500	11,600
		DIPAC			
Chum	Amalga Harbor	0	548,000	0	2,137,000
Chum	Boat Harbor	0	0	0	480,000
Chum	Gastineau Channel	377,000	255,000	140,000	772,000
Chum	Limestone Inlet	0	0	0	139,000
Sockeye	Port Snettisham	163,000	70,200	6,800	240,000

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

# LIST OF MANAGEMENT CONTACTS

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

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Management Biologists	Management Biologist
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Scott Walker, Justin Breese, and Bo Meredith	Thomas Kowalske
Management Biologists	Management Biologist
2030 Sea Level Drive, Suite 205	Kadin Building, 215 Front Street
Ketchikan, AK 99901	Wrangell, AK 99929
(907) 225-5195	(907) 874-3822
Dave Gordon and Eric Coonradt	Jim Craig
Management Biologists	Publications and Information
304 Lake Street, Room 103	802 3 <sup>rd</sup> Street
Sitka, AK 99835	Douglas, AK 99824
(907) 747-6688	(907) 465-4236

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

Ketchikan	(907) 225-6870
Petersburg	(907) 772-3700
Sitka	(907) 747-1009
Juneau	(907) 465-8905

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- Eggers, D. M., and S. C. Heinl. 2008. Chum salmon stock status and escapement goals in Southeast Alaska. Alaska Department of Fish and Game, Special Publication No. 08-19, Anchorage.
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- Wertheimer, A. C., J. A. Orsi, E. A. Fergusson, and M. V. Sturdevant. 2011. Forecasting pink salmon harvest in Southeast Alaska from juvenile salmon abundance and associated environmental parameters: 2010 returns and 2011 forecast (NPAFC Doc. 1343) Auke Bay Lab., Alaska Fish. Sci. Cen., Nat. Mar. Fish. Serv., NOAA, 17109 Point Lena Loop Road, Juneau, AK 99801-8626, USA, 20 p.; http://www.npafc.org/new/pub\_documents.html.