

**2012 Southeast Alaska purse seine fishery  
management plan**

by

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Alaska Department of Fish and Game

Division of Commercial Fisheries



## Symbols and Abbreviations

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

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

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**2012 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 17 million pink salmon for 2012. 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 2012 Southeast Alaska salmon purse seine fishery is described in detail, along with expected run sizes, harvest strategies, and related management issues.

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

## INTRODUCTION

This plan describes how the Southeast Alaska salmon purse seine fishery will be managed during the 2012 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) 2012 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 2001 through 2010 the species composition of the purse seine harvest has included 89% pink salmon, 9% chum salmon, 1% sockeye salmon *O. nerka*, and 1% coho salmon *O. kisutch*. Chinook 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.

## 2012 PINK SALMON FORECAST

The Southeast Alaska pink salmon harvest in 2012 is predicted to be in the *weak* range, with a point estimate of **17 million fish (80% confidence interval: 10–29 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 from 1960 to 2010:

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

The 2012 forecast is an average of two forecasts: 1) a forecast of the trend in the harvest using a time-series technique called exponential smoothing, and 2) the forecast based on the harvest trend, adjusted using 2011 juvenile pink salmon abundance data. Fry 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 (Orsi et al. 2006<sup>1</sup>). This is the 6<sup>th</sup> year that the ADF&G forecast was adjusted using these data.

The 2012 harvest forecast of 17 million pink salmon is well below the recent 10-year average harvest of 40 million pink salmon, but is equal to the average harvest over the past three even years. There are two primary reasons to expect that the harvest in 2012 will be smaller than the recent average. First, although biological escapement goals were met in the parent year, 2010, escapement indices were below average on inside waters north of Sumner Strait (Table 1). Management targets for pink salmon were not met in districts 112, 113 inside, 114, and 115, and, at a finer scale, for 7 of the 24 pink salmon stock groups in this area. In addition, the NOAA Auke Bay Lab's 2011 peak June–July juvenile pink salmon CPUE statistic from upper Chatham and Icy straits in northern Southeast Alaska ranked in the bottom third of the 14 previous years that NOAA has collected that information, which may indicate poor freshwater and early marine survival for pink salmon set to return in 2012. Pink salmon harvests associated with the bottom third of indices in the NOAA data set ranged between 12 and 20 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>1</sup> We gratefully acknowledge the assistance and advice of Joe Orsi and Alex Wertheimer and their colleagues at the NOAA Auke Bay Lab. 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/SP12-01.pdf>

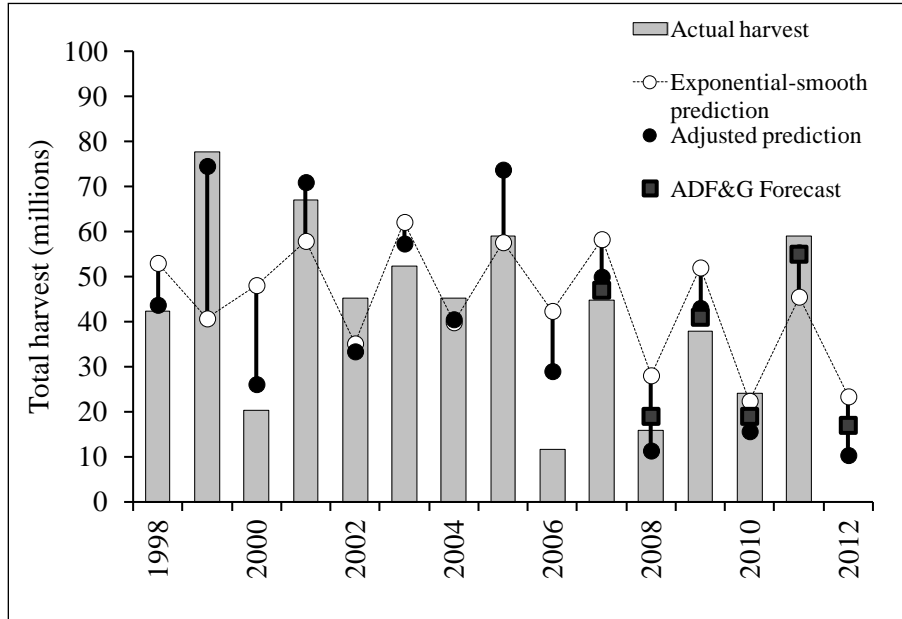


Figure 1.—Annual harvest of pink salmon in Southeast Alaska, 1998–2011, compared to the exponential smoothed hindcast predictions of the harvest adjusted using NOAA Auke Bay Laboratory juvenile pink salmon data. The 2007–2011 ADF&G harvest forecasts were very close to the actual harvests in those years.

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 2012 parent-year of 2010.

<b>Subregion</b>	<b>District</b>	<b>2010 Index</b>	<b>Lower Management Target</b>	<b>Upper Management Target</b>
Southern	101	2.35	1.02	2.71
Southern	102	0.71	0.29	0.77
Southern	103	1.58	0.95	2.54
Southern	105	0.35	0.25	0.66
Southern	106	0.43	0.21	0.57
Southern	107	0.46	0.26	0.69
Southern	108	0.06	0.02	0.06
Northern Inside	109	0.96	0.63	1.5
Northern Inside	110	0.93	0.59	1.41
Northern Inside	111	0.45	0.27	0.65
Northern Inside	112	0.46	0.53	1.26
Northern Inside	Inside 113	0.26	0.32	0.76
Northern Inside	114	0.12	0.15	0.35
Northern Inside	115	0.03	0.03	0.07
Northern Outside	Outside 113	2.01	0.75	2.5
<b>Biological Escapement Goals by Subregion</b>		<b>Total 2010 Index</b>	<b>Lower Escapement Goal</b>	<b>Upper Escapement Goal</b>
	Southern	5.94	3.00	8.00
	Northern Inside	3.21	2.50	6.00
	Northern Outside	2.01	0.75	2.50

## GENERAL MANAGEMENT GOALS

The primary management goals for the 2012 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 Chinook salmon (28 inches or larger) no more than 4.3% of the all-gear Chinook salmon catch ceiling established for the 2012 season.

Based on the 2012 Chinook salmon pre-season abundance index of 1.52, the purse seine fishery allocation for the season is 11,472 Chinook 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 Purse Seine Management Plan (5AAC 33.366).

## **REGIONAL MANAGEMENT PLAN**

### **EXPECTED FISHING REGIME**

ADF&G will manage the 2012 purse seine fishery in-season based on aerial survey observations and fishery performance data. Initial 15-hour openings will occur on Sunday, June 17, at Hidden Falls, and Point Augusta. A portion of District 2 near Kendrick Bay will initially open with 4 days. The first opening in District 10 will occur Sunday, June 24. Initial openings of Districts 1, 4 and District 7 will be expected on Sunday, July 1. Other areas around the region will open as described in this plan, subject to in-season information. The ADF&G pink salmon harvest forecast is 17 million, with an 80% confidence interval range of 10–29 million. This forecast is quite similar to the NOAA harvest forecast of 19 million, with an 80% confidence interval range of 13–25 million. As always, the department will carefully monitor in-season 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 2010, the pink salmon parent year, the common property purse seine harvest of 20.6 million pink salmon was below the long-term average since 1962 of 26.7 million and the recent 10-year average of 37.4 million. Escapements in 2010 were within the biological escapement goal ranges in all three subregions. District escapements were met for 11 of 15 districts with management targets (but not in Northern Southeast Inside Districts 12, 14 or 15, or in Section 13-C). Escapements were below management targets for eight stock groups and within management targets for 34 stock groups, and above management targets for four 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.

In December of 2011, the Southeast Alaska Purse Seine Task Force met. Although not likely to be applied in 2012, the peak season plan continues to remain in place for the 2012 season allowing for a 5-day fishing cycle where relative numbers of days open and days closed can be varied regionally based on strength of returns to different stock groups. The past criteria that there should be fewer than 260 boats fishing to invoke a 5-day fishing regime has been removed, although in-season effort levels are still a consideration while managing the fishery. The purpose of expanded fishing remains to: 1) supply processing plants with more consistent deliveries of fresh-caught fish to maximize flesh quality, 2) increase roe recovery and, therefore, 3) maximize the value of final products. Following is a summary regarding the peak fishing plan:

- It is generally recognized that processing capacity and fishing effort have increased since 4:1 was initially implemented in 2002.
- To fully harvest surplus returns at the peak of the season during large runs there is 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 would 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 2012 is expected to decrease somewhat due to the low pink salmon forecast. In 2011, 270 boats made landings out of 379 permits issued by CFEC. The number of boats in 2011 increased from 235 permits that fished in 2010. The recent 10-year average effort in the purse seine fishery from 2002–2011 is 239 permits.

### **DAILY START TIMES**

For the 2012 season the fishery opening and closing times will be as follows:

1. From the start of the seine season (June 17) 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**

At the November 2006 Purse Seine Task Force meeting, the department was asked to clarify the definition of closed waters near a salmon stream. Fish and Game Regulation 5AAC 33.350 lists all closed waters in Southeast Alaska. Statewide regulation 5AAC 39.290(a) prohibits fishing **within 500 yards of any salmon stream or river or any stream or river bed or channel at all stages of the tide**. This means that fishing is prohibited within 500 yards of where the stream channel exists including where it ends at low tide. 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 low tide 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 low tide 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 low tide 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

low tide. 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 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 Chinook 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 2012 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**

Due to the low forecast and expected high prices in 2012, mature pink salmon fisheries are not likely, however such fisheries are a possibility.

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 to 2,400,000 pounds during years when fisheries occurred.

No terminal area pink salmon fisheries have occurred during the 2002, 2004, 2006, 2008, 2009 or 2010 seasons. 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 2012, 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.

### **CHINOOK 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 Chinook 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 Chinook salmon (not including Alaska hatchery-produced fish). The purpose of the 1997 regulation was to make management of the purse seine harvest of Chinook salmon more consistent with the abundance-based management approach. The Chinook salmon all-gear catch ceiling is driven by the preseason abundance index that is determined by the Chinook Technical Committee. For 2012, the abundance index is 1.52 and the corresponding purse seine Chinook salmon allocation will be 11,472 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 Chinook salmon are as follows:

1. Chinook salmon taken in the purse seine fishery that are less than 28 inches in length (as measured from the tip of the snout to the tip of the tail) will not be counted against the Chinook salmon harvest quota.
2. Chinook salmon 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 Chinook salmon that are less than 21 inches (approximately 5 pounds or less).

### **CHINOOK SALMON IMPLEMENTATION PLAN**

Non-retention of 28-inch and larger Chinook salmon has been the primary management measure for maintaining the catch limit. Because the Chinook salmon seine allocation for 2012 is only 11,472 fish, retention of Chinook 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 Chinook 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 Chinook 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 fishers are encouraged to avoid fishing in areas with high concentrations of Chinook salmon and to quickly release those caught in a manner that minimizes mortality. To ensure small (less than 21 inches) Chinook salmon are not counted against the quota, ADF&G needs the cooperation of the fishing industry. To accomplish this, all Chinook 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. Chinook 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 now 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 Chinook salmon and steelhead by emergency order. In effect for the 2012 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 was expressed at the 2009 purse seine task force meeting 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**

### **2010 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 5.9 million in 2010 fell within the escapement goal range of 3.0 to 8.0 million index fish. Escapement indices met management targets for all districts and for all 18 pink salmon stock groups in this subregion. The Union Bay stock group in District 7 was above the upper range of the management target in 2010.

### **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 an escapement of 113,000 sockeye salmon in 2011. Fall fry estimates for 2010 and 2011 were also higher than recent years. Both of these indicators suggest that survival rates for McDonald Lake sockeye salmon have increased from a period of low productivity in the mid-2000s.

In 2012, 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 will 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, will be limited in 2012;
- 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 2012, 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**

During the 2006 meeting in Ketchikan, the BOF de-listed the Hugh Smith Lake sockeye stock as a stock of concern at the recommendation of ADF&G. This means the Hugh Smith Lake Sockeye Action Plan is no longer in effect. However, ADF&G will continue to closely monitor the system and, if escapement levels are below that needed to reach the lower end of the escapement goal of 8,000 the department may consider the following actions:

1. In Statistical Weeks 29 and 30 the department may close that portion of the District 1 purse seine fishery east of a line from Quadra Point to Slate Island Light to Black Rock Light to a point on the mainland shore at 55°01.40' N. latitude, 131°00.20' W. longitude.
2. In Statistical Weeks 31, 32, and 33 the department may close that portion of the District 1 purse seine fishery east of a line from Foggy Point Light to Black Rock Light to the southernmost tip of Black Island and close the northern portion of the Section 1-B drift gillnet fishery to one nautical mile south of the latitude of Foggy Point Light.

## **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 Heintz 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 Heintz 2011). The department plans to monitor summer chum salmon closely in 2012, 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 2011 the bilateral Northern Panel accepted the work of the Technical Committee for the run reconstructions of the Nass and Skeena Rivers for the 2009 season. Information in Table 2 reflects the performance of the District 4 fishery for 1999 through 2009 and preliminary numbers for the 2010 and 2011 season and a 2012 forecast.

The Canadian Department of Fisheries and Oceans (DFO) has a preseason expectation of approximately 1,846,000 sockeye salmon to the Nass/Skeena Rivers in 2012. If the 2012 forecast is accurate and escapement goals are achieved, then the AAH for District 4 will be approximately 18,300 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 2011.

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	1,524,000	1,040,000	484,000	11,858	15,971	11,180	(678)	(58,368)
2010 <sup>1</sup>	1,406,016	890,820	515,196	12,622	4,617	3,232	(9,390)	(67,758)
2011 <sup>1</sup>	2,490,000	1,100,000	1,390,000	34,055	25,280	17,696	(16,359)	(84,117)
2012 <sup>2</sup>	1,846,000	1,100,000	746,000	18,277	n/a	n/a	n/a	n/a

Note: Underages are shown in parenthesis in this table.

<sup>1</sup>Data for 2010 and 2011 is preliminary

<sup>2</sup>2012 is based on forecasted returns.

In 2012, the District 4 purse seine fishery will start on Sunday, July 1 by regulation. District 4 will be managed under the Pacific Salmon Treaty annex through July 28, 2012 (Statistical weeks 27, 28, 29, and 30). It is anticipated that the initial opening on July 1 will be 10-12 hours in length. The duration of openings following the initial opening 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 29, 2012 the district will be managed on the strength of returning Southern Southeast Alaska wild salmon.

If the management regime increases to a 5-day cycle due to strong return 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 past 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 2012.

### 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 17 to target returning 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 1 (Statistical Week 27). 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 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 escapement of salmon into the back 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 and back 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 will 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 poor returns in the western portions of Section 3-C, initial fishing will most likely occur on the eastern portion of the section until the run can be determined.

### **Districts 5, 6, and 7**

Parent-year pink salmon escapements were within the district wide management targets in Districts 5, 6 and 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), limited area seine openings can be expected to occur starting the first week of August. In District 6, the parent year escapement was good to southwest Etolin systems and to the systems along the Ratz Harbor shoreline. Openings in the Mosman and Burnett Inlets area can be expected during the first week of August. Openings along the Ratz Harbor and Screen Island shorelines will likely not occur until after August 4 (SW 31) due to concerns for McDonald Lake sockeye. The pink salmon return to Section 7-A is expected to be decent and the first opening in that area will occur Sunday, July 1. 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 55,000 chum salmon in 2008 (Piston and Heintz 2010a), 61,500 in 2009 (Piston and Heintz 2010b), and 85,600 in 2010 (Piston and Brunette 2011). 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 will be instituting 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 2012 will provide a 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 the retention of chum salmon by trollers from August 15 until on or about September 8 when the first fall chum opening occurs unless surplus pink salmon or chum salmon will otherwise go unharvested.

Chum salmon catches 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 by the department will be initiated around the end of August.

Approximately 10 days after the closing of the purse seine directed pink salmon fishery in District 2, the department will provide an opening for purse seine vessels in District 2 in waters outside of Cholmondeley Sound. This initial opening is expected to occur on or around September 8. The initial opening is expected to be 15 hours or 39 hours in duration for the purse seine fleet. The area that will be open to the Purse Seine fleet is already open continuously for the troll fleet under summer troll regulations.

Additional openings will likely be 1 or 2 days in length depending upon the strength of the run and expected effort levels. Open waters will move inside Cholmondeley Sound for both gear groups only if 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 to protect Lancaster, Dora Bay and Kitkun systems and may be moved further north than the closures listed in regulations.

Once the purse seine fleet is allowed inside Cholmondeley Sound a rotation will be instituted for 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. The day open for troll gear will be the day prior to the Purse Seine opening.

On or around September 12 a second opening will occur if aerial surveys indicate the chum salmon run strength is sufficient to provide excess harvest to escapement needs.

On or around September 19 a third opening will occur if aerial surveys indicate the chum salmon run strength is sufficient to provide excess harvest to escapement needs.

Troll fishing will be closed for the summer troll fishery by regulation on September 20, 2012. Any extension for the troll fleet based on coho abundance will not allow additional fishing on chum salmon stocks in Cholmondeley Sound. Any time the purse seine fleet is open prior to or on September 20 there will be equal time for the troll fleet.

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 2012 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 2012 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 details 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 10) 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 2012, SSRAA is expecting a total return of 1,700,000 summer chum, 390,000 fall chum, 215,000 coho, and 22,000 Chinook 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 June 28 according to 5AAC 33.370 was announced on a separate Neets Bay THA news release on April 27, 2012. 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

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May 1–July 2, 2012

Open continuously to troll unless closed by emergency order.

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May 1–June 10, 2012

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

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June 11–July 2, 2012

Rotational fishery for drift gillnet and purse seine.

July 3–November 15, 2012

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.

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### **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. long. 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. long. 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. long. will be closed to the harvest of salmon.

In 2012, approximately SSRAA is expecting a total return of 441,000 chum, 10,000 Chinook and 17,000 coho salmon. It is anticipated that approximately 220,500 chum, 7,000 Chinook, and 3,000 coho salmon will return to the terminal area and be available for harvesting in the rotational fisheries.

## Anita Bay THA Calendar

May 1–June 12, 2012

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

June 13–August 31, 2012

Rotational fishery for drift gillnet and purse seine.

September 1–November 10, 2012

Beginning 12:01 a.m. Saturday, September 1, 2012, 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 Thursday, November 10, 2012.

## Kendrick Bay THA–[5AAC 33.377]

The Kendrick Bay THA, which includes the waters of Kendrick Bay west of 131° 59.00' W. longitude, will be open on a continual basis beginning Wednesday, June 15, 2012, Statistical Week 24, through September 30. For 2012 SSRAA is expecting a return of 895,000 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 2012 Returns to SSRAA enhancement projects by release location.

Species/Run	Release Location	Common property Harvest	Terminal	Total Return
Coho	Herring Cove	17,000	6,000	20,000
Coho	Nakat Inlet	19,000	2,000	21,000
Coho	Anita Bay	14,000	3,000	17,200
Coho	Neets Bay	162,000	53,000	215,000
Coho	Bakewell	14,000	6,000	20,000
Coho	Crystal Lake	2,800	2,800	5,600
Summer Coho	Burnett Inlet	12,000	9,000	21,000
Summer Coho	Neck Lake	54,000	54,000	108,000
Chinook	Whitman Lake	5,400	12,600	18,000
Chinook	Anita Bay	3,000	7,000	10,000
Chinook	Neets Bay	6,600	15,400	22,000
Chinook	Crystal Lake	850	850	1,700
Summer Chum	Neets Bay	510,000	1,190,000	1,700,000
Summer Chum	Anita Bay	220,500	220,500	441,000
Summer Chum	Kendrick Bay	626,500	268,500	895,000
Summer Chum	Nakat Inlet	241,800	161,200	403,000
Fall Chum	Nakat Inlet	36,000	49,700	85,700
Fall Chum	Neets Bay	97,500	292,500	390,000

## **NORTHERN DISTRICTS PURSE SEINE FISHERY**

### **2010 PINK SALMON RETURNS**

Parent year pink salmon escapement indices were within the recommended biological escapement goal range for the Northern Southeast Inside subregion as a whole and within management targets for Districts 9–11, but below management targets for Districts 12–15. For the Northern Southeast Outside subregion escapement indices were within the recommended biological escapement goal range, which includes Sections 13-A and 13-B (Table 1). Management targets in the 2010 parent year were below target ranges in 2010 for seven stock groups in the Northern Southeast Inside area and one stock group in the Northern Southeast Outside area. Stock groups below management targets included Eliza Harbor and SE Baranof Island in District 9, SW Admiralty, and Tenakee Inlet in District 12, Hoonah Sound in District 13, N. Chichagof in District 14, and Upper Lynn Canal in District 15. For the Northern Southeast Outside Subregion, in Sections 13-A and 13-B, Salisbury Sound was below the management target, while Portlock Harbor, Sitka Sound, and West Crawfish were above target ranges.

### **MANAGEMENT CONCERNS**

Pink salmon runs to the inside waters of northern Southeast Alaska were highly varied in 2010 and several stock groups in Districts 9, 12, 13 14, and 15 did not meet escapement goals. An early-season management concern will be to prevent excessive interception of weak 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 have been below this newly adopted escapement goal threshold since it was adopted. Summer chum salmon escapements in this subregion have trended downwards since the late 1990s, but had consistently exceeded the escapement goal threshold through 2007. Recent low returns of summer chum salmon in northern Southeast Alaska may have been related in part to the same extreme environmental conditions outlined previously for summer chum salmon in southern Southeast Alaska. In 2011, however, escapements of summer chum salmon in the NSEI Subregion did not rebound like escapements in the SSE Subregion and were below the escapement goal for the 4<sup>th</sup> straight year. 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 Heintz 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. Elsewhere in the NSEI, escapements were generally below average. The department plans to monitor summer chum salmon closely in 2012, 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 terminal 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 2012 seining season will begin on Sunday, June 17, 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 at Point Augusta in Chatham Strait to assess the strength of early returning pink salmon stocks; the opening will be in conjunction with the first opening at the Hidden Falls Terminal Harvest Area.

Escapements of summer chum salmon for the 2007–2008 parent years in Tenakee Inlet were mostly well below average. Although no formal forecasts are made for these stocks, some expectations can be based on parent-year escapements. Escapements in 2007 and the main parent year of 2008 were similar in magnitude, and were approximately 35% of the previous ten year average.

The 2010 parent-year pink salmon escapement index for Tenakee Inlet of 0.08 million fish is well below the lower bound of the management target range of 0.21 million fish as well as the 10-year average index count of 0.35 million fish. In 2012, purse seine opportunity in Tenakee Inlet will depend on the observed development of escapements to local streams. Portions of the Basket Bay shoreline may be opened to harvest pink salmon returns to Tenakee Inlet and Peril Strait if 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.

Typically, Section 13-C has been opened the fourth Sunday in June to assess run strength and harvest surplus pink salmon. Due to poor pink escapements to a number of systems in Section 13-C in 2010, no openings are scheduled in 2012. Openings in Section 13-C will occur only if inseason assessment indicates a surplus. Given that many systems had extremely weak escapements in 2010, if openings occur at all, they will most likely be in small areas targeted at specific streams where abundance has been observed. Parent-year summer chum salmon escapements to Saook Bay and Rodman Bay were good in 2007 and fair in 2008. Seine openings to target chum salmon will be based on inseason assessment of abundance. Chum salmon openings will likely be very restrictive in time and area, and will occur only if pink salmon escapements will not be negatively impacted.

The parent-year escapement index for District 10 was 0.93 million pink salmon, within the management target range of 0.59–1.45 million fish and was uniformly good throughout the district. The mainland portion of District 10 is scheduled to open on Sunday, June 24. 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 4. Both test fisheries are scheduled to occur weekly through the month of July. Test fishing will also occur along the Hawk Inlet Shoreline beginning June 29 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 Fishery Management Plan (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. Parent-year 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 within the 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, parent-year pink salmon escapements were 76% of the lower bound of the management target range. Openings may occur beginning in mid-August, depending upon inseason observations of pink salmon abundance.

Parent-year escapements of pink salmon were generally good in Section 9-B. Parent-year escapement was good to excellent to the Kuiu Island systems but mediocre to the southwest Admiralty Island section of 9-B. Openings in Section 9-B are expected start around July 29. The escapement index for all of District 9 was 0.96 million fish, within the 0.63 to 1.5 million management target range.

Pink salmon escapement in District 14 was poor in 2010. The pink salmon escapement index of 118,000 fish was 79% of the 150,000 fish lower management target. Given these poor escapements, ADF&G does not anticipate openings along the Whitestone shoreline in District 14. However the Department will monitor escapements of the pink salmon stocks in this area and could open this shoreline should pink salmon returns be stronger than anticipated.

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. Parent year escapement of pink salmon to Kelp Bay streams was within the management target range. Openings to harvest surplus pink salmon will be based on inseason assessment of run strength. If pink or chum salmon abundance in Kelp Bay can support purse seine openings, the open area may be restricted to waters within Kelp Bay to avoid harvesting mixed stocks along the eastern shoreline of Catherine Island depending upon overall run strength of pink salmon to Northern Southeast. 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. If chum salmon returns to Middle Arm are in excess to escapement needs then limited area in Kelp Bay may be provided to specifically target Middle Arm chum salmon. During even year cycles, pink salmon typically return in August following chum salmon returns in Kelp Bay.

### **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 Management Plan (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 within the management target range, and were respectively 38% and 73% of average. The Taku River fish wheel pink salmon catch was 90% of the even-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. 2012 pink salmon catches in the department's Taku River fish wheels.
5. 2012 pink salmon marine sport fish catch rates in the Juneau area (lower Lynn Canal and upper Stephens Passage).
6. 2012 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.

### **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 escapements were within the management target ranges for the Lisianski and Slocum Arm stock groups, above the target range for the Portlock stock group and slightly below the target range for the Salisbury Sound stock group. Openings can be expected to begin around the third week in July depending upon observed pink salmon abundance. Conservative management of Salisbury Sound can be expected to ensure this stock

group achieves escapement targets as well to allow passage of pink salmon returning to streams in Section 13-C where escapements were extremely poor during the parent year in 2010. In Section 13-B, parent-year pink salmon escapements in Sitka Sound and West Crawfish were at the upper management target range and Whale Bay escapements were at the lower management target range. Seine fisheries can be expected in all of these areas depending on inseason observations. Purse seine openings could begin as early as mid-July.

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.

If the pink salmon returns are strong enough to warrant a 4-on/1-off fishing regime, the fishing patterns in southern Sitka Sound will likely be scheduled as alternating 2-on/3-off and 3-on/2-off due to the expected concentration of effort targeting enhanced chum salmon in the Sitka Sound area. This will maintain the historic 50% seine fishing opportunity while ensuring adequate pink salmon escapement to southern Sitka Sound streams. This will also prevent changes in the allocation of enhanced chum salmon returning to the Deep Inlet THA that are also targeted by the other gear groups. Extended or continuous fishing opportunities may be provided on specific stock groups in the Sitka Management Area 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.

### **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 2007 and 2008 parent years. Fishing opportunities in Excursion Inlet may occur in late August or early September. Parent-year escapements to Excursion River were both within the management goal range. Escapements in 2007 were 76% of average and the primary brood year of 2008 was equal to the 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 820,000 chum salmon in 2012. NSRAA needs 170,000 chum salmon for broodstock leaving 650,000 chum salmon available for common property harvests. This will be the first 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 2012 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. lat., north of 57° 01.00' N. lat. and west of a line from 57° 27.00' N. lat., 134° 45.50' W. long. to 57° 01.00' N. lat., 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 17 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.

In the event that a large abundance of chum salmon develops early, the Hidden Falls THA may open prior to June 17. As usual, seiners are advised that openings at Hidden Falls during the 2012 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 Chinook 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 17. Also, provided that some trollers are present, in order to allow increased troll access to Chinook salmon, Kasnyku Bay will be closed to purse seining in June west of a line from North Point to the westernmost tip of Round Island and north of the latitude of the westernmost tip of Round Island. Beginning July 1, areas within the THA may be closed to protect chum or Chinook salmon broodstock, and trollers may only retain chum salmon in numbers not exceeding the total number of Chinook salmon on board.

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 730,000 chum salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2012. Cost recovery and broodstock goals for the Deep Inlet returns are approximately 7,000 fish and 70,000 fish respectively, allowing for a common property harvest of approximately 653,000 chum salmon by purse seine, drift gillnet, and troll gear. In 2012, cost recovery will be managed by NSRAA to harvest 55,000 pounds. Actual numbers of chum salmon harvested for cost recovery will be adjusted to achieve this total weight. 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 Chinook salmon management prior to the third Sunday in June will remain 2:1.

The NSRAA board has requested that the common property rotational fishery begin on Sunday, May 27, in order to provide for additional common property harvest of hatchery Chinook salmon returning to the Medvejie Hatchery. Beginning on May 27 and continuing through June 16, the schedule will include four days of gillnet and two days of seine per week. 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 17, the THA will be opened to three days of seine and three days of gillnet per week and will remain on this schedule through the season. 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 2012 season:

May 27–June 16:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine	Gillnet	Gillnet	Seine	Gillnet	Gillnet	Troll

From June 17 until the end of the season:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Seine	Gillnet	Gillnet	Gillnet	Seine	Seine	Troll

A detailed initial schedule for common property harvest in the THA was published in a news release issued April 18. 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 2012 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 easternmost 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 2012 season, the boundaries of the Deep Inlet THA may be changed by NSRAA and ADF&G to help resolve conflicts between fishers 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 2012 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 Terminal Harvest Area 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 expected to be poor again in 2012. 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 114,000 chum salmon is expected. In addition to chum salmon, Gunnuk Creek Hatchery is expecting a total return of 360,000 pink salmon and 9,800 coho.

### **Amalga Harbor Special Harvest Area Experimental Fishery**

DIPAC will provide the opportunity for two trial common property seine openings in the Amalga Harbor SHA in 2012 in order to increase the harvest sharing percentage with the common property fishery. These openings will occur in Section 11-A, and will be limited to a portion of the Amalga Harbor SHA, subdistrict 111-55. These fisheries are anticipated to occur on July 5<sup>th</sup> and 12<sup>th</sup>, between 8:00 a.m. and 4:00 p.m., and only if there is a mid-week opening that includes Hidden Falls. These openings are considered a trial, and any future fisheries in this area will depend on an evaluation of this season's experience. In the event of lower than anticipated

returns to the Amalga Harbor SHA, or if there is no opening at Hidden Falls on the specified dates, these openings may not occur. Details of the open area and times will be included in the normal purse seine news releases at the appropriate time.

Table 4.–Expected 2012 returns to Northern Southeast area enhancement projects by hatchery organization and release location.

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

<b>Species</b>	<b>Release Location</b>	<b>Common Property Harvest</b>	<b>Cost Recovery</b>	<b>Broodstock</b>	<b>Total Return</b>
<b>NSRAA</b>					
Chum	Medvejie/Deep Inlet	653,000	7,000	70,000	730,000
Chum	Hidden Falls	650,000	0	170,000	820,000
Chinook	Medvejie/Deep Inlet	18,190	8,610	4,000	30,800
Chinook	Hidden Falls	13,600	500	2,000	16,100
Coho	Hidden Falls	90,000	91,000	10,000	191,000
Coho	Deer Lake (Mist Cove)	21,000	19,000	NA	40,000
Coho	Deep Inlet	8,500	1,500	NA	10,000
<b>Armstrong Keta, Inc.</b>					
Pink	Port Armstrong	665,000	725,000	120,000	1,510,000
Chum	Port Armstrong	53,000	172,000	40,000	265,000
Coho	Port Armstrong	88,000	84,000	3,000	175,000
Chinook	Port Armstrong	1,300	2,500	600	4,400
<b>Sheldon Jackson College</b>					
Pink	Crescent Bay	8,100	4,100	4,000	16,200
Chum	Crescent Bay	9,125	3,375	1,500	14,000
Coho	Crescent Bay	0	0	200	0
Chinook	Crescent Bay	200	200	0	400
<b>Gunnuck Creek Hatchery</b>					
Chum	SE Cove	19,500	0	29,000	48,500
Chum	Kake	26,000	0	39,500	65,500
Pink	Kake	145,000	194,500	20,500	360,000
Coho	Kake	4,900	4,400	500	9,800

## LIST OF MANAGEMENT CONTACTS

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

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<p>Scott Kelley Region 1 Supervisor 802 3<sup>rd</sup> Street Douglas, AK 99824 (907) 465-4250</p>	<p>Bill Davidson Region 1 Management Biologist 304 Lake Street, Room 103 Sitka, AK 99835 (907) 747-6688</p>
<p>Kevin Monagle and Dave Harris Management Biologists 802 3<sup>rd</sup> Street Douglas, AK 99824 (907) 465-4250</p>	<p>Troy Thynes and Kevin Clark Management Biologist P.O. Box 667 Petersburg, AK 99833 (907) 772-3801</p>
<p>Scott Walker, Justin Breese, and Bo Meredith Management Biologists 2030 Sea Level Drive, Suite 205 Ketchikan, AK 99901 (907) 225-5195</p>	<p>Thomas Kowalske Management Biologist Kadin Building, 215 Front Street Wrangell, AK 99929 (907) 874-3822</p>
<p>Dave Gordon and Eric Coonradt Management Biologists 304 Lake Street, Room 103 Sitka, AK 99835 (907) 747-6688</p>	<p>Jim Craig Publications and Information 802 3<sup>rd</sup> Street Douglas, AK 99824 (907) 465-4236</p>

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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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