

**2010 Southeast Alaska Drift Gillnet Fishery  
Management Plan**

by

**William Davidson,**

**Randy Bachman,**

**Bo Meredith,**

**Eric Coonradt,**

**Kevin Clark,**

**David Harris,**

and

**Troy Thynes**

May 2010

---

---



## 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	
inch	in	District of Columbia	D.C.	(multiple)	R
mile	mi	et alii (and others)	et al.	correlation coefficient	
nautical mile	nmi	et cetera (and so forth)	etc.	(simple)	r
ounce	oz	exempli gratia	e.g.	covariance	cov
pound	lb	(for example)		degree (angular)	°
quart	qt	Federal Information Code	FIC	degrees of freedom	df
yard	yd	id est (that is)	i.e.	expected value	<i>E</i>
		latitude or longitude	lat. or long.	greater than	>
<b>Time and temperature</b>		monetary symbols		greater than or equal to	≥
day	d	(U.S.)	\$, ¢	harvest per unit effort	HPUE
degrees Celsius	°C	months (tables and figures): first three letters	Jan, ..., Dec	less than	<
degrees Fahrenheit	°F	registered trademark	®	less than or equal to	≤
degrees kelvin	K	trademark	™	logarithm (natural)	ln
hour	h	United States	U.S.	logarithm (base 10)	log
minute	min	(adjective)		logarithm (specify base)	log <sub>2</sub> , etc.
second	s	United States of America (noun)	USA	minute (angular)	'
		U.S.C.	United States Code	not significant	NS
<b>Physics and chemistry</b>		U.S. state	use two-letter abbreviations (e.g., AK, WA)	null hypothesis	H <sub>0</sub>
all atomic symbols				percent	%
alternating current	AC			probability	P
ampere	A			probability of a type I error	
calorie	cal			(rejection of the null hypothesis when true)	$\alpha$
direct current	DC			probability of a type II error	
hertz	Hz			(acceptance of the null hypothesis when false)	$\beta$
horsepower	hp			second (angular)	"
hydrogen ion activity	pH			standard deviation	SD
(negative log of)				standard error	SE
parts per million	ppm			variance	
parts per thousand	ppt,			population	Var
	‰			sample	var
volts	V				
watts	W				

***REGIONAL INFORMATION REPORT NO. 1J10-09***

**2010 SOUTHEAST ALASKA DRIFT GILLNET FISHERY  
MANAGEMENT PLAN**

By

William Davidson and Eric Coonradt  
Alaska Department of Fish and Game, Division of Commercial Fisheries, Sitka

Randy Bachman  
Alaska Department of Fish and Game, Division of Commercial Fisheries, Haines

David Harris  
Alaska Department of Fish and Game, Division of Commercial Fisheries, Douglas

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

Troy Thynes and Kevin Clark  
Alaska Department of Fish and Game, Division of Commercial Fisheries, Petersburg

Alaska Department of Fish and Game  
Division of Commercial Fisheries, Publications Section  
802 3<sup>rd</sup> Street, Douglas, AK 99824

May 2010

The Regional Information Report Series was established in 1987 and was redefined in 2007 to meet the Division of Commercial Fisheries regional need for publishing and archiving information such as project operational plans, area management plans, budgetary information, staff comments and opinions to Board of Fisheries proposals, interim or preliminary data and grant agency reports, special meeting or minor workshop results and other regional information not generally reported elsewhere. Reports in this series may contain raw data and preliminary results. Reports in this series receive varying degrees of regional, biometric and editorial review; information in this series may be subsequently finalized and published in a different department reporting series or in the formal literature. Please contact the author or the Division of Commercial Fisheries if in doubt of the level of review or preliminary nature of the data reported. Regional Information Reports are available through the Alaska State Library and on the Internet at: <http://www.sf.adfg.ak.us/statewide/divreprots/html/intersearch.cfm>.

*Bill Davidson and Eric Coonradt*  
*Alaska Department of Fish and Game, Division of Commercial Fisheries,*  
*304 Lake St. Rm. 103, Sitka, AK 99835-7563*

*Randy Bachman*  
*Alaska Department of Fish and Game, Division of Commercial Fisheries*  
*Mile 1, Haines Highway, Haines, AK 99827-0330*

*David Harris*  
*Alaska Department of Fish and Game, Division of Commercial Fisheries,*  
*802 3<sup>rd</sup> Street, Douglas, AK 99824*

*Troy Thynes and Kevin Clark*  
*Alaska Department of Fish and Game, Division of Commercial Fisheries*  
*16 Sing Lee Alley, Petersburg, AK 99833-0667*

*Bo Meredith*  
*Alaska Department of Fish and Game, Division of Commercial Fisheries*  
*2030 Sea Level Drive, Suite 205 Ketchikan, AK 99901*

*This document should be cited as:*

*Davidson, W., R. Bachman, K. Clark, B. Meredith, E. Coonradt, D. Harris, and T. Thynes, 2010. 2010 Southeast Alaska Drift Gillnet Fishery Management Plan. Alaska Department of Fish and Game, Regional Information Report Series No. 1J10-09 Douglas.*

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

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

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

U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Suite 300 Webb, Arlington VA 22203

Office of Equal Opportunity, U.S. Department of the Interior, Washington DC 20240

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

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

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

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

# TABLE OF CONTENTS

	<b>Page</b>
LIST OF TABLES.....	iii
list of Figures.....	iii
ABSTRACT .....	1
INTRODUCTION.....	1
SALMON RETURN EXPECTATIONS.....	2
MANAGEMENT APPROACH .....	3
Weekly Fishing Announcements.....	4
Weekly Fishing Periods.....	4
Full Retention .....	4
U.S./CANADA PACIFIC SALMON TREATY .....	4
NEW REGULATIONS .....	5
Neets Bay, Deep Inlet, and Anita Bay Terminal Harvest Areas.....	5
Boat Harbor Terminal Harvest Area.....	6
CHINOOK SALMON.....	6
TREE POINT AND PORTLAND CANAL FISHERY .....	6
Introduction .....	6
2010 Outlook.....	6
Chum Salmon .....	6
U. S./Canada Tree Point Fishery Agreement.....	7
Nass River Sockeye Salmon Annual Allowable Harvest.....	7
Chum and Coho Enhancement.....	8
Pink Salmon.....	8
Management Goals.....	8
Management Plan .....	8
Hugh Smith Lake Sockeye Salmon .....	9
PRINCE OF WALES AND STIKINE FISHERIES .....	10
Introduction .....	10
2010 Outlook.....	10
Chinook Salmon .....	10
Sockeye Salmon.....	10
Pink Salmon.....	11
Chum Salmon .....	11
Coho Salmon .....	11
Management Goals.....	11
Management Plan .....	12

Chinook Salmon .....	12
Sockeye Salmon.....	13
Pink Salmon.....	14
Coho Salmon .....	14
Screen Island Shore Drift Gillnet.....	14
<b>TAKU/SNETTISHAM GILLNET FISHERY .....</b>	<b>14</b>
Introduction .....	14
2010 Outlook .....	15
Chinook Salmon .....	15
Sockeye Salmon.....	15
Chum Salmon .....	15
Pink Salmon.....	16
Coho Salmon .....	16
Management Goals .....	16
Management Plan .....	16
Chinook Salmon .....	16
Sockeye Salmon.....	17
Coho and Fall Chum.....	18
<b>LYNN CANAL GILLNET FISHERY .....</b>	<b>18</b>
Introduction .....	18
Management Goals.....	19
2010 Outlook .....	20
Sockeye Salmon.....	20
Summer Chum Salmon.....	21
Fall Chum Salmon .....	22
Coho Salmon .....	22
Chinook Salmon .....	23
Management Plan .....	23
Section 15-A.....	23
Section 15-B .....	24
Section 15-C .....	25
<b>TERMINAL HARVEST AREA FISHERIES.....</b>	<b>26</b>
Northern Southeast Regional Aquaculture Association Terminal Area Fisheries .....	26
Deep Inlet Terminal Harvest Area—[5 AAC 33.376] .....	26
Deep Inlet Cost Recovery .....	28
Southern Southeast Regional Aquaculture Association Terminal Area Fisheries .....	28
Neets Bay Terminal Harvest Area—[5 AAC 33.370] .....	29
Nakat Inlet Terminal Harvest Area—[5 AAC 33.372].....	29
Crystal Lake Terminal Harvest Area—[5 AAC 33.381] .....	29
Anita Bay Terminal Harvest Area— [5 AAC 33.383].....	30

Douglas Island Pink and Chum Inc. Terminal Area Fisheries.....	30
Boat Harbor Terminal Harvest Area.....	30
Speel Arm Special Harvest Area .....	30
REFERENCES CITED .....	31
FISHERY CONTACTS .....	32
TABLES AND FIGURES.....	33

## LIST OF TABLES

<b>Table</b>	<b>Page</b>
Table 1.–Southeast Alaska commercial drift gillnet salmon harvest, in numbers, by area, harvest type and species, 2009. ....	34
Table 2.–Southeast Alaska annual Portland Canal/ Tree Point (District 1) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.....	35
Table 3.–Southeast Alaska annual Prince of Wales (District 6) traditional drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.....	35
Table 4.–Southeast Alaska annual Stikine River (District 8) traditional drift gillnet salmon harvest, in numbers, by species, 2000 to 2009. ....	36
Table 5.–Southeast Alaska annual Taku/Snettisham (District 11) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.....	36
Table 6.–Southeast Alaska annual Lynn Canal (District 15) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.....	37
Table 7.–Performance of the Tree Point drift gillnet fishery sockeye salmon harvest under the 1999 agreement.....	37
Table 8.–Biological and sustainable escapement goals for Lynn Canal salmon stocks by species and location.....	38

## LIST OF FIGURES

<b>Figure</b>	<b>Page</b>
Figure 1.–Traditional Drift Gillnet Fishing Areas in Southeast Alaska.....	39

## SALMON RETURN EXPECTATIONS

In Southeast Alaska, the Alaska Department of Fish and Game (ADF&G) issues a region wide preseason harvest forecast for pink salmon. ADF&G also derives preseason forecasts for several specific stocks including Taku and Stikine River Chinook salmon, Stikine River sockeye salmon, and other Chinook salmon stocks. Private non-profit hatchery operators also derive preseason forecasts for salmon returning to many enhancement projects throughout Southeast Alaska. The projected returns of sockeye, chum, and coho salmon presented in this management plan are qualitative and should not be considered official department forecasts. These return projections are calculated primarily from parent-year catch and escapement data and are expressed in terms of probable magnitude of return relative to historic levels.

Significant for 2010 are forecast returns of Chinook salmon to the Stikine and Taku Rivers. The United States and Canada successfully negotiated abundance based fishery regimes for those 2 stocks in February 2005. A major component of the negotiations was specific harvest shares for both countries that are referred to as Allowable Catch (AC). A preliminary AC is calculated using preseason forecasts of terminal run for each stock. The 2010 Stikine River preseason run forecast of 22,900 large adults does not allow for U.S. and Canada to conduct directed fisheries on returns of Stikine River Chinook salmon. The 2010 Taku River preseason terminal run forecast of 41,328 large adults will allow an Alaska harvest of 1,781 fish in the directed District 11 fisheries by all gear groups. The ACs for each river will be adjusted as inseason information on run strength becomes available. The harvests of Stikine and Taku River Chinook salmon in Districts 8 and 11 above base harvest levels will not count against the 2.9% drift gillnet harvest ceiling allowed under Chinook salmon allocation plan adopted by the Alaska Board of Fisheries (BOF). Most Alaska hatchery produced Chinook salmon harvested in drift gillnet fisheries do not count against the harvest ceiling mandated by the BOF allocation plan.

For 2010, the terminal run outlook for Stikine sockeye salmon is 188,000 fish, which constitutes an approximately average run. For comparison, the recent 10-year average (2000–2009) total Stikine sockeye run size is approximately 184,200 fish. The 2010 forecast includes approximately 91,000 Tahltan (49%), 48,400 enhanced Tuya (26%), and 48,000 wild mainstem sockeye salmon (26%). Returns to the Taku River, are expected to be below average, returns to Chilkoot Lake are expected to be well below average, and returns to Chilkat Lake are expected to be near average. Douglas Island Pink and Chum, Inc. (DIPAC) has forecast 198,000 enhanced sockeye returning to Port Snettisham.

The projected regionwide forecast of hatchery chum salmon returns for 2010 is expected to be 7.4 million. This includes 2.15 million to 4 DIPAC locations, 2.7 million to 2 Northern Southeast Regional Aquaculture Association (NSRAA) locations, 2.29 million to 4 Southern Southeast Regional Aquaculture Association (SSRAA) locations, 0.11 million to 2 Kake locations, and 0.25 million to one Armstrong Keta Inc. location. A portion of these returns above broodstock needs and cost recovery harvests may be intercepted in traditional drift gillnet fisheries in Districts 1, 6, 8, 11, and 15 as well as in terminal area drift gillnet fisheries in Boat Harbor, Deep Inlet, Anita Bay, Neets Bay, and Nakat Inlet. Chum salmon harvests in combined regional drift gillnet fisheries has averaged 2.1 million fish per year over the recent 10-year period from 1999 to 2008. Of the total harvest in numbers for all species chum salmon accounts for half of the salmon harvested in the drift gillnet fisheries.

Overall, returns of coho salmon are expected to be consistent with the recent year averages. Alaska hatchery coho salmon contributions to drift gillnet fisheries have averaged 25% of the total harvest over the past 10-year period and were 28% to 30% of total harvests over the past 3 years.

The Southeast Alaska pink salmon harvest forecast in 2010 is 19 million, with a range of 11 to 32 million fish. The major portion of the pink salmon harvest for the region is generally taken by purse seine gear. Drift gillnet harvests of pink salmon have averaged 2 to 3% of regional harvests.

## **MANAGEMENT APPROACH**

A flexible management approach is required because of the uncertainty of salmon run size to the drift gillnet fishing areas. Thus, this management plan presents only a general outlook of how the season is expected to develop. Some specific management approaches may be altered depending on inseason assessments of salmon run strength. Gillnet fishermen are encouraged to contact ADF&G management staff listed at the end of this plan for more detailed information.

The primary objectives for management of the 2010 drift gillnet fishery are as follows:

1. Obtain overall salmon spawning escapements with the best possible distribution to all systems;
2. Provide for orderly fisheries while harvesting those salmon in excess of escapement needs;
3. Promote the harvest and processing of good quality salmon within the constraints dictated by run size;
4. Manage for a total Southeast drift gillnet Chinook salmon harvest ceiling of 2.9% of the all-gear quota, exclusive of Alaskan hatchery-produced fish (6,432 Chinook salmon);
5. Minimize, to the extent possible, the interception of salmon destined for locations where weak returns are expected;
6. Manage Districts 1, 6, 8, and 11 drift gillnet fisheries consistent with the provisions of the U.S./Canada Pacific Salmon Treaty (PST);
7. Manage hatchery THA's in accordance with provisions in existing THA management plans adopted by the Alaska Board of Fisheries;
8. Manage Districts 8 and 11 directed Chinook salmon fisheries for all-gear harvests as provided under the PST.

Achievement of these management objectives will be accomplished by inseason adjustments of fishing time and area to control harvests in specific areas in accordance with salmon run strength and timing. Comparisons of current-year fishing performance to historical fishing success (i.e., catch per unit effort, or CPUE analysis) are a major component of inseason run strength assessment. This approach assumes catch rates are an accurate reflection of run strength by time period and can be relied upon to indicate salmon escapements through the fishing area.

Past experience has demonstrated that management of salmon fisheries based only on fishery performance or Catch per Unit of Effort (CPUE) data can be misleading, especially for mixed-stock fisheries. Therefore, other available run-strength indicators will also be used including

spawning escapements, stock composition estimates, test fishing, observed salmon concentrations in closed water areas, catches from other fisheries, and salmon run timing models.

The increasing availability of hatchery-produced salmon has become a major factor in the management of the Southeast Alaska drift gillnet fisheries, including coho and summer chum salmon throughout the region and sockeye salmon in District 11. Where inseason management is based on fishery performance, it may be difficult to gauge natural stock run strength if significant numbers of hatchery fish are present in the catch. Where possible, the hatchery component of the catch will be separated when evaluating fishery performance and management decisions outside of terminal areas will focus on the conservation of wild stocks.

### **WEEKLY FISHING ANNOUNCEMENTS**

Inseason management of the District 1 drift gillnet fishery is conducted by the Ketchikan area management staff; Districts 6 and 8 by the Petersburg and Wrangell area staff; District 11 by the Juneau area staff; and District 15 by the Haines area staff. Because permit holders can move freely among all drift gillnet fisheries, the weekly fishing announcements will be issued to include all areas in the region. These will normally be released simultaneously in all area offices by mid-afternoon each Thursday during the fishing season.

### **WEEKLY FISHING PERIODS**

Weekly fishing periods in most traditional areas can generally be expected to begin on Sundays at 12:01 P.M. However, the directed Chinook salmon drift gillnet fishery in District 11 will open on Mondays, except following the Memorial Day Holiday, when the fishery will open on Tuesday. The District 11 directed Chinook salmon fishery will open at 12:01 P.M. If inseason Stikine Chinook run estimates allow for a directed fishery, District 8 will open on Monday at 8:00 A.M. with the same caveats for the Memorial Day Holiday as District 11. Also, the Alaska Board of Fisheries passed a proposal at the February 2009 meeting in Sitka to change the start day in District 8 to Monday for the first 2 weeks of the sockeye management period. District 6 and 8 are managed together due to their close proximity. As a result, the District 6 weekly start day will also be Monday for the first 2 weeks of the sockeye season. Fishing periods in hatchery THAs, including the Northern and Southern Southeast Regional Aquaculture Association's (NSRAA and SSRAA) terminal fisheries in Deep Inlet, Anita Bay, Neets Bay, and Nakat Inlet will be in accordance with rotational harvest management plans for drift gillnet, seine, and troll fisheries adopted by the Alaska Board of Fisheries.

### **FULL RETENTION**

ADF&G will require full retention (5 AAC 39.265) of all salmon harvested in the Deep Inlet THA net fisheries from the onset of the 2010 season. This regulation may be implemented by emergency order in other areas of Southeast Alaska if necessary after consultation with the Alaska Wildlife Troopers (AWT). Further details regarding the implementation of this regulation will be announced at later dates.

### **U.S./CANADA PACIFIC SALMON TREATY**

The PST will influence management of Districts 1, 6, 8, and 11 drift gillnet fisheries [5AAC 33.361]. The management provisions specified by the PST will be considered separately under the specific management plan for each respective fishery. Fishermen are encouraged to contact

local ADF&G staff for more detailed information concerning Alaska's PST obligations under the 2009–2018 Transboundary River (TBR) Annex agreement.

## **NEW REGULATIONS**

The Alaska Board of Fisheries met February 17–26, 2009, in Sitka and adopted several new regulations which affect the Southeast Alaska drift gillnet fisheries and went into effect during the 2009 salmon season.

5 AAC 33.368 DISTRICT 8 KING SALMON MANAGEMENT PLAN (as has been described under the heading **WEEKLY FISHING PERIODS** above) has been repealed and readopted to change the opening day in District 8 during the first 2 weeks of traditional sockeye management to begin on Monday (June 8 and June 15 in 2009).

5 AAC 39.222 POLICY FOR THE MANAGEMENT OF SUSTAINABLE SALMON FISHERIES was applied and McDonald Lake sockeye salmon have been identified by the Board as a stock of management concern. Based on department recommendations the Board of Fisheries adopted the McDonald Lake Sockeye Salmon Action Plan, 2009. Management action to reduce the harvest of these fish in the District 6 drift gillnet fishery will limit openings to 2 days during statistical weeks 29, 30, and 31. Purse seine fisheries will be also restricted in Districts 1, 2, 5, 6, and 7. In addition to these fishery management actions, restrictions are also in place in the Yes Bay personal use fishery, and research programs are being implemented to evaluate returns and to further refine future management actions to rebuild the run.

5 AAC 33.331 GEAR SPECIFICATIONS AND OPERATIONS was amended, with the addition of a new subsection, to allow vessel to have both troll and drift gillnet gear aboard. This regulation will allow fishing of multiple gear types from a vessel more easily without complete removal of either gear type between fisheries, provided specific provisions are followed. One or more persons aboard must have current CFEC permits for each gear type on board, and make those permits readily available to the department employees or peace officers. Fish harvested by either gear type must be offloaded and recorded on fish tickets before operating another gear type. Gillnets must be bagged and below deck before and during operation of troll gear or when troll caught fish are on board the vessel. Trolling cannon ball or other weights must be removed from trolling wires and stored below deck before or during operation of gillnet gear and when gillnet caught fish are on board the vessel.

5 AAC 29.120 GILLNET SPECIFICATIONS AND OPERATION (in the troll regulations) was also amended consistent with changes to 5 AAC 33.331 described above.

## **NEETS BAY, DEEP INLET, AND ANITA BAY TERMINAL HARVEST AREAS**

Regulations for Neets Bay Hatchery, Deep Inlet THA, and Anita Bay THA were modified based on the 5 AAC 33.364 SOUTHEASTERN ALASKA AREA ENHANCED SALMON ALLOCATION MANAGEMENT PLAN and the joint Regional Planning Team consensus on how enhanced salmon allocation issues could be addressed.

5 AAC 33.370 DISTRICT 1: NEETS BAY HATCHERY SALMON MANAGEMENT PLAN (b) (2) was amended so that after June 20 the time ratio for gillnet openings to seine openings is one to one.

5 AAC 33.376 DISTRICT 13: DEEP INLET TERMINAL HARVEST AREA SALMON MANAGEMENT PLAN (b) (1) (B) was amended so the time ratio for gillnet openings to seine

openings is 2 to one; except that beginning with the first emergency order of the 2009 season through the last emergency order of the 2011 season, the time ratio for gillnet openings to seine openings is one to one after the third Sunday in June.

5 AAC 33.383 DISTRICT 7: ANITA BAY TERMINAL HARVEST AREA SALMON MANAGEMENT PLAN (d) (3) was amended so that beginning with the first emergency order of the 2009 season through the last emergency order of the 2011 season the time ratio for gillnet openings to seine openings is one to one.

### **BOAT HARBOR TERMINAL HARVEST AREA**

As a housekeeping measure, a new regulatory section and management plan was generated that describes management of the Boat Harbor Terminal Harvest Area.

5 AAC 33.386 DISTRICT 15: BOAT HARBOR TERMINAL HARVEST AREA MANAGEMENT PLAN includes the following provisions: (a) defines the THA to harvest hatchery chum by the drift gillnet fleet, (b) provides for management in consultation with DIPAC from the third Sunday in June through September 15 with a continuous opening inside of Boat Harbor and management of the remainder of the THA by emergency order to provide adequate escapements of wild stocks.

### **CHINOOK SALMON**

The need for management measures to comply with the drift gillnet harvest quota for Chinook salmon will depend on inseason evaluation of Chinook salmon catch rates relative to the 2.9 % drift gillnet allocation of the Treaty fish harvest ceiling [5AAC 29.060]. For 2010 the all-gear Treaty Chinook allocation, based on a preseason Abundance Index of 1.35 is 221,800 Chinook. Therefore the drift gillnet gear Treaty Chinook allocation is 6,432 fish. If the need arises, nighttime fishing closures may be implemented in certain areas to reduce the incidental catch of immature, “feeder” Chinook salmon. Management measures to limit the drift gillnet harvest of PST Chinook salmon have not been necessary during recent years.

The District 15 drift gillnet fishery will be managed in accordance with provisions in the Lynn Canal and Chilkat River Chinook Salmon Fishery Management Plan [5AAC 33.384].

Drift gillnet fisheries may target Chinook salmon in District 11 dependant on inseason estimates of abundance. Only historic base level catches will be counted towards the PST fish ceiling [5AAC 29.060 (b)(2) and (e)].

### **TREE POINT AND PORTLAND CANAL FISHERY**

#### **INTRODUCTION**

The Tree Point and Portland Canal drift gillnet fishing area consists of regulatory Sections 1-A and 1-B. This fishery targets summer chum and sockeye salmon early in the season, followed by pink salmon, and finally fall chum and coho salmon at the end of the season.

#### **2010 OUTLOOK**

##### **Chum Salmon**

Runs of summer chum salmon in southern Southeast Alaska were poor in 2009: escapement indices were 40% below the escapement goal for this region, and the third lowest since the 1970s. The estimated escapement of 7,400 summer chum salmon at Fish Creek, near Hyder, was

27% of the recent 10-year average of 27,400. ADF&G will pay close attention to Portland Canal chum salmon in 2010 and will take necessary management action early in the season to ensure adequate escapements of these stocks. ADF&G will conduct aerial surveys starting in late June to determine the strength of returning chum salmon runs to these areas.

### **U. S./Canada Tree Point Fishery Agreement**

In the spring of 2009, the United States and Canada re-negotiated a 10-year annex, 2009–2018, for the Tree Point fishery. There was no change to the District 1 gillnet portion of the PST and the agreement still calls for the following:

Manage the Alaskan District 1 drift gillnet fishery to:

1. Achieve an annual catch share of Nass River sockeye salmon of 13.8% of the Annual Allowable Harvest (AAH) of the Nass River sockeye salmon stocks that year;
2. Carry forward from year to year annual deviations from the prescribed catch share arrangement.

### **Nass River Sockeye Salmon Annual Allowable Harvest**

The AAH each year will be calculated as the total run of adult Nass River sockeye salmon in that year less the escapement target of 200,000 fish. In the event that the actual Nass River spawning escapement for the season is below the target level, the actual spawning escapement will be used in the AAH calculations.

The total run calculation includes the catches of Nass River sockeye salmon in the principal boundary area fisheries and the spawning escapement to the Nass River watershed. This includes the catch of Nass River sockeye salmon in Alaskan Districts 1, 2, 3, 4, and 6 net fisheries, Canadian Areas 1, 3, 4, and 5 net fisheries and Canadian Nass 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 percentage, it is recognized that overages and underages will occur and an accounting mechanism is required. The payback mechanism for the fishery will be based on the number of fish a party is over or under its AAH.

The management intent for the fishery shall be to return any overages to a neutral or negative balance as soon as possible. After 5 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, nor to harvest the accrued underage.

During the Pacific Salmon Commission meeting in January 2009, the bi-lateral Northern Panel and the NBTC finalized and agreed upon the run reconstruction of the Nass River for 2007. The performance of the Tree Point drift gillnet fishery under the 1999 agreement is shown in Table 7.

Preliminary reports indicate that the total sockeye salmon return to the Nass River in 2009 was 460,000 fish. That allowed for a harvest of approximately 36,000 Nass River sockeye salmon at Tree Point in 2009.

The Canadian Department of Fisheries and Oceans (DFO) has a preseason expectation for 2010 returns of approximately 865,000 Nass River sockeye salmon (Northern Boundary Technical

Committee Report). If the forecast is accurate, then the AAH for Tree Point will be approximately 91,770 Nass River sockeye salmon.

### **Chum and Coho Enhancement**

Hatchery returns of summer chum, fall chum, and coho salmon to SSRAAs enhancement projects are expected to contribute significantly to the Tree Point gillnet fishery in 2010. Information concerning SSRAA forecast returns is included under the THA Fisheries section of this plan.

### **Pink Salmon**

Pink salmon returns are expected to be below average to southern Southeast Alaska in 2010. If the actual returns come back as forecasted, the Tree Point drift gillnet fishery may receive some 2-, 4-, and 5-day fishing weeks during periods of the District 1 Pink Salmon Management Plan (PSMP; 5 AAC 33.360).

The PSMP establishes drift gillnet fishing time in Section 1-B in relation to District 1 purse seine fishing time when both gear types are concurrently harvesting the same pink salmon stocks. By regulation, the plan starts on the third Sunday in July (July 18, 2010) with the following fishing time schedule:

1. When the purse seine fishery is open for any portion of one day during a fishing week, the drift gillnet fishery must be open for 48 hours during the same fishing week;
2. When the purse seine fishery is open for any portion of 2 days during a fishing week, the drift gillnet fishery must be open for 96 hours during the same fishing week;
3. When the purse seine fishery is open for any portion of 3 or more days during a fishing week, the drift gillnet fishery must be open for 120 hours during the same week.

### **MANAGEMENT GOALS**

Management goals for the 2010 Tree Point drift gillnet fishery are as follows:

1. Manage the fishery in accordance within the PSMP (5 AAC 33.360);
2. Manage the fishery consistent with the current provisions of the PST (5 AAC 33.361).

### **MANAGEMENT PLAN**

The Tree Point gillnet fishery will open by regulation in Section 1-B for 4 days beginning at 12:01 p.m., Sunday, June 20, 2010. The length of subsequent fishing periods up to the start of the PSMP on July 19 will be based on the strength of wild stock sockeye and chum salmon returns to Alaskan and Canadian waters. The effort levels at Tree Point will also influence the amount of time the fishery is given up to the start of the District 1 PSMP.

As in recent years, the catch of hatchery-produced, summer chum salmon returning to the Nakat Inlet release site will not be included in the evaluation of natural stock fishery performance. The contribution of Nakat Inlet chum salmon will be estimated by inseason analysis of otolith marked fish. Hatchery chum salmon have contributed as much as 90% of weekly chum salmon harvest at Tree Point and as much as 70% of the total chum salmon harvest in recent years.

The PST requires that the harvest of natural stocks of chum salmon returning to Portland Canal streams be minimized to ensure rebuilding of these stocks. As a result, no fishing should be

expected in Section 1-A for Portland Canal chum salmon unless it is determined that a harvestable surplus exists. Any management decision to fish Portland Canal must assume there is sufficient additional surplus fish to support a Canadian as well as an Alaskan fishery.

The Section 1-B drift gillnet fishery will be managed according to the District 1 PSMP starting July 20, 2010. The overall pink salmon return to southern Southeast Alaska is expected to be below average in 2010. If the returns come in as predicted then beginning in mid-July through the end of August, Tree Point drift gillnetters can anticipate fishing periods of 2, 4 and 5 days.

In 2010, management of the Southeast purse seine fishery may be similar to the 2008 season. In 2008 the purse seine fleet fished 2 single day openings a week and later in the season went to a 2-day-on/2-day-off fishing schedule on August 10. This resulted in 2 48-hour openings for Tree Point gillnetters during at the start of the time period when the District 1 PSMP was in effect.

Fall management at Tree Point starts after the end of the pink salmon season. During the fall season the Tree Point fishery targets primarily fall chum and coho salmon. Little is known about the stock composition of the chum and coho salmon harvest at this time of the year. However, if the estimated exploitation rate of the Hugh Smith Lake coho salmon stock, which reaches 80% in some years, holds true for adjacent areas then wild coho salmon stocks in the surrounding Tree Point area may benefit from a closing date at Tree Point of approximately September 20. Due to the uncertainties of the escapement levels of the stocks being harvested, the documented high exploitation rate of Hugh Smith Lake coho salmon, and the high preponderance of hatchery fish in the harvest, ADF&G will continue to take a conservative approach to the fall season at Tree Point. However, fishing periods will be allowed after September 20 if fisheries performance data indicates above average returns of wild chum and coho salmon. During recent years, approximately 50% of the fall chum and coho salmon have been hatchery fish. Nakat Inlet fish not harvested in the common property fisheries can be harvested in the Nakat Inlet THA, which remains open to commercial fishing through November 10, 2010.

### **Hugh Smith Lake Sockeye Salmon**

The BOF, during the 2006 meeting in Ketchikan, removed the formal designation of the Hugh Smith Lake sockeye salmon as a *stock of concern*. With this change the Hugh Smith Lake Sockeye salmon Action Management 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 fish, the department intends to take the following actions:

1. In Statistical Weeks 29 and 30 the department will 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 will 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.

# **PRINCE OF WALES AND STIKINE FISHERIES**

## **INTRODUCTION**

The Prince of Wales (District 6) drift gillnet fishery occurs in the waters of northern Clarence Strait and Sumner Strait, in regulatory Sections 6-A, 6-B, and 6-C, and portions of Section 6-D. The Stikine fishery encompasses the waters of District 8 surrounding the terminus of the Stikine River. Due to their close proximity, management of these fisheries is interrelated, resulting in some major stocks being subject to harvest by both fisheries. Two distinct management areas exist within each district: the Frederick Sound (Section 8-A) and Wrangell (Section 8-B) portions of District 8, and the Sumner Strait (Section 6-A) and Clarence Strait (Sections 6-B, 6-C, and 6-D) portions of District 6. The harvest of terminal hatchery returns to the Crystal Lake and Anita Bay hatchery facilities will be discussed in the THA Fisheries portion of this management plan.

## **2010 OUTLOOK**

### **Chinook Salmon**

The preseason forecast of large Stikine Chinook salmon in 2010 of 22,900 fish is not sufficient to allow a directed commercial fishery in District 8. This forecast is above the midpoint of the escapement goal range of 21,000 large Chinook upon which the preseason harvest allocations are based. However, this forecast is not large enough to allow for escapement, base level catches, assessment test fishery and directed Chinook fisheries. An inseason run estimate is produced towards the end of May. If the inseason estimate of abundance shows that there is harvestable surplus available then a directed Stikine Chinook fishery could occur. The department may conduct a test fishery in District 8 in order to develop an additional inseason indicator of run strength if the inseason abundance estimate indicates there is adequate abundance to conduct the test fishery. The test fishery is designed to provide an index of Stikine Chinook catch per unit effort in relation to the total Stikine Chinook run and provides a comparison of test fishery CPUE to common property CPUE when the common property fishery occurs. For enhanced Chinook returning to the area, the 2010 Anita Bay Chinook total run forecast is 8,700 fish.

### **Sockeye Salmon**

The 2010 Stikine River sockeye salmon return is expected to be near average. The preliminary forecast for total return to the Stikine River is 188,000 sockeye salmon. The 2010 forecast includes approximately 91,000 Tahltan (49%), 48,400 enhanced Tuya (26%), and 48,000 wild mainstem sockeye salmon (26%). The 2010 Tahltan Lake sockeye salmon return is expected to be slightly below the 2000–2009 average. The Tuya Lake enhanced sockeye salmon return is expected to be above the 10-year average. Returns of mainstem Stikine River sockeye salmon stocks are expected to be slightly below the 10-year average. Due to the near identical return timing of the Tahltan Lake and Tuya Lake stocks, any open fishing periods in District 8, and to a limited extent in District 6, will be determined by the actual inseason abundance of the wild Tahltan Lake stock. Typically, the Tahltan Lake and Tuya Lake sockeye run timing peaks in statistical week 27 or 28 (beginning June 27 or July 4) through the District 6 and District 8 fisheries. During an average Tahltan Lake run, like the run anticipated this year, significant numbers of sockeye could be present as early as statistical week 25 (June 13) and as late as statistical week 31 (July 31).

The 2010 returns of local area sockeye salmon stocks should be near average. Parent-year escapements into Red Bay and Luck Lakes were average to near the average of the previous 4 years. Parent-year escapement into Salmon Bay Lake was below average. Very few enhanced sockeye salmon will be returning to Neck Lake in 2010. Returns in the last 3 years were minimal and, due to the limited number of returning fish, the program has been discontinued.

### **Pink Salmon**

The 2010 Southeast Alaska pink salmon forecast of 19 million fish is well below average and significantly less than last year.

### **Chum Salmon**

No directed chum salmon fishing occurs in either District 6 or 8. Chum salmon are caught incidentally in fisheries targeting sockeye, pink, and coho salmon. Significant returns of chum salmon to Anita Bay, as well as Ketchikan area hatcheries, may result in increased harvests in Districts 6 and 8. Anita Bay is expecting a total run of 279,000 summer chum salmon in 2010. Returns to Anita Bay have typically peaked during statistical weeks 30, 31 or 32 (July 18, July 25, or August 1). Summer chum salmon production from Ketchikan area hatcheries is expected to once again be significant. Chum salmon returning to the Ketchikan area hatchery facilities migrate through District 6 and are expected to contribute significantly to the harvest in this district.

### **Coho Salmon**

The overall coho salmon returns for 2010 are expected to be above average. The combined 2009 returns to Neck Lake and Burnett Inlet in upper Clarence Strait were approximately 146,900 coho salmon. The 2010 returns forecasted for Neck Lake and Burnett Inlet are 85,000 and 21,000 coho. The 2009 coho salmon return to Anita Bay was approximately 25,400 fish with a forecast for 2010 of 20,000 fish. Approximately 211,800 fall coho salmon returned to enhancement projects in the Ketchikan area in 2009. The 2010 total forecasted Ketchikan area enhanced coho return is 227,000 fish, and includes: Neets Bay (165,000), Nakat Inlet (20,000) Herring Cove (27,000), and Bakewell Lake (15,000). Wild coho salmon returns for 2010 are expected to be similar to the long-term average. Extended fishing periods in Districts 6 or 8 could occur beginning in Statistical Week 36 (August 29); however, actual fishing periods will be determined weekly inseason, based on wild coho salmon harvest rates.

## **MANAGEMENT GOALS**

Management goals for the District 6 and District 8 drift gillnet fisheries for the 2010 season are as follows:

1. Achieve the Stikine River Chinook salmon escapement goal while harvesting the Alaskan share of the Chinook salmon in excess of the goal;
2. Achieve the Tahltan Lake sockeye salmon escapement goal while maximizing the harvest of Tahltan Lake sockeye above that goal and maximizing the harvest of Tuya Lake sockeye salmon;
3. Achieve pink salmon spawning escapement goals in District 6 and District 7;
4. Achieve good spawning escapements of sockeye salmon in local Alaskan systems;

5. Manage the District 6 and District 8 drift gillnet fisheries consistent with the provisions of the PST (5 AAC 33.361).

## **MANAGEMENT PLAN**

### **Chinook Salmon**

If Stikine Chinook inseason run estimates produced towards the end of May indicate a surplus available for directed fishing, the openings would be similar to the 2005 through 2008 seasons and would start at 8:00 A.M. on Mondays, unless the first opening occurred during the week of Memorial Day in which case the opening would start on Tuesday. The length of subsequent openings each week will depend upon the number of boats fishing, the number of Chinook salmon harvested, and results from stock assessment projects. Inseason projections are predominantly derived from returning Chinook salmon caught and tagged near Shakes Slough on the Stikine River. The old Stikine closure lines would likely be utilized if directed Chinook fishing were to occur. These lines would close waters inside a line from Babbler Point to Hour Point along the shore of Wrangell Island to Point Highfield to the southern end of Liesnoi Island to the southern end of Greys Island to the small island near the eastern entrance of Blind Slough to the nearest point of Mitkof Island to the prominent point of Mitkof Island nearest Coney Island to the northern end of Coney Island to a point 500 yards north of Jap Creek on the mainland shore.

The minimum mesh size is 7 inches for the District 8 directed Stikine Chinook gillnet fishery. Based on inseason surveys from the 2005 through 2008 seasons, the mesh restriction will result in increased Chinook harvest while minimizing the incidental harvest of steelhead. The standard 300-fathom length and 60 meshes deep net restrictions will be used in this fishery.

There are specific closed waters for the District 8 Chinook fishery. There are 6 areas where Chinook salmon are usually concentrated that can possibly be closed to drift gillnetting for varying lengths of time. These closures are designed to provide sport fishermen with exclusive areas to fish without interference from commercial fishing gear and/or to provide increased protection for steelhead returning to Petersburg Creek and Bear Creek on Mitkof Island. Closed waters for drift gillnetting in District 8 include areas near Babbler Point, Wrangell Harbor, the Nose on Woronkofski Island, Woodpecker Cove, Bear Creek, and Point Frederick to Beacon Point. The exact closed waters will be identified in the drift gillnet news release prior to each opening. Most closures will remain in effect throughout the entire fishery, through the second Saturday in June. The 2 exceptions are in the Nose and Woodpecker Cove Area closures. These closures will only be in effect if the gillnet fishery is open for more than 48 hours. The closure from Point Frederick to Beacon Point will continue during the sockeye fishery to protect Petersburg Creek sockeye stocks.

In District 8, for the week before Memorial Day, the drift gillnet fishery will be limited to a maximum of 2 days to prevent conflicts with the Chinook salmon derbies in Petersburg and Wrangell. It is highly unlikely there will be any directed Chinook openings the week before Memorial Day in 2010. There will be no openings on weekends or holidays to decrease any potential conflict with sport fishermen.

Drift gillnet fishermen are asked to notify management biologists, who will be monitoring the fishery, of any incidence of steelhead. For the 2010 season, any steelhead retained during the directed Chinook salmon fishery must be recorded on fish tickets.

Chinook salmon less than 28 inches long that are harvested in the commercial drift gillnet fisheries may be retained and sold as usual. Chinook salmon less than 28 inches long, and those of Alaska hatchery origin will not be counted against the Alaskan share of the allowable harvest. Processors are requested to identify the numbers of Chinook salmon less than 28 inches long on the fish tickets as well as the numbers of Chinook salmon of lengths 28 inches or longer. ADF&G samplers working at the processing facilities will identify hatchery-reared Chinook salmon so those fish are not counted against the Alaskan share of the harvest.

## **Sockeye Salmon**

The sockeye season will start at 12:00 noon on Monday, June 14, (SW25) for an initial 48-hour fishing period in District 6. If the inseason Stikine River Chinook estimate is similar or less than the preseason forecast, District 8 will remain closed during this opening. District 8 will open on Monday, June 21, with large area restrictions most likely in place. Current indications point towards a slightly above-average return of sockeye salmon to the Stikine River. Returns to Tahltan Lake are expected to be slightly below average and returns to the Mainstem are expected to be slightly below average. Subsequent openings will start on Sunday's and will be determined inseason based on catches and stock proportion data. If inseason catch and stock data indicate that the Tahltan sockeye salmon return is strong, then more liberal fishing periods and/or mid-week openings will be allowed in District 8. Extended fishing time is most likely to occur during the last 2 weeks of June and the first 2 weeks of July when the bulk of the Tahltan Lake sockeye run is passing through District 8. Reduced fishing time in District 8 to conserve Stikine River mainstem sockeye salmon in mid July may occur. Extended fishing time in District 6 will be based primarily on the abundance of sockeye salmon from local island stocks.

The sockeye salmon fishery in both districts will be managed in accordance with the Transboundary Rivers (TBR) Annex of the Pacific Salmon Treaty. The Annex allows the District 6 fishery to be managed for harvesting local Alaskan sockeye stocks and normally is not influenced under most conditions by the presence of sockeye salmon stocks of Stikine River origin. Management of the District 8 fishery is based on the need to harvest sockeye salmon of Stikine River origin, as allowed by the sharing provisions of the TBR Annex, and the conservation of the resource.

Management actions during the sockeye salmon fishing season will be based on analysis of CPUE and stock identification data to determine the availability of Stikine River fish. These stock abundance indicators, along with fishery performance and stock composition data obtained from a Canadian test fishery, will be incorporated into a Stikine sockeye salmon management model. As the season progresses, this model will be the primary method used to estimate the availability of sockeye salmon for harvest by the Alaskan drift gillnet fishery in District 8 and the Canadian inriver fisheries. Any conservation measures required for Stikine River sockeye salmon are implemented first in District 8 followed by Sumner Strait in District 6. Reductions in fishing time, area, or district-wide closures will be used when conservation measures are needed. All openings will be based upon the most recent Stikine sockeye model update and the current weekly sockeye salmon harvest.

The numbers of Stikine River sockeye generally begin to decrease in mid-July and other stocks including McDonald Lake sockeye salmon begin to pass through the fishery. McDonald Lake sockeye escapements have been below the escapement goal 4 of the past 5 seasons. Given this history, and that the stock is not expected to meet the escapement goal in the very near future, the

department recommended McDonald Lake sockeye as a stock of concern as defined by the Sustainable Salmon Fishery Policy. An Action Plan for this stock was presented to and approved by the Alaska Board of Fisheries at the recent meeting in Sitka. This Action Plan outlines a conservative fishing regime that will occur during the peak of the McDonald Lake sockeye salmon return. In District 6, 3 openings, in stat weeks 29, 30, and 31, will have a maximum fishing time of 2 days. Additional area closures are not perceived at this time, however, ongoing GSI analyses may highlight certain areas and time that McDonald Lake sockeye salmon are more susceptible to harvest in this fishery and modifications to these conservation measures would proceed accordingly.

Any announcements of fishery extensions or mid-week openings will be made on the fishing grounds by 10:00 a.m. of the last day of the regular fishery opening. Open area and fishing time during any extensions may not necessarily be the same as the general weekly opening.

### **Pink Salmon**

Pink salmon normally begin entering District 6 in significant numbers by the third or fourth week of July. The early portion of the pink salmon fishery will be managed primarily on CPUE and parent year escapement. By mid-August, pink salmon destined for local systems will begin to enter the fishery in greater numbers and at that time, management will be based on observed escapements. The low forecasted return of pink salmon may result in below average days open in District 6 throughout August.

### **Coho Salmon**

The coho salmon season will begin during late August or early September. Management of the District 6 fishery will be based predominantly on wild stock CPUE. Crystal Lake Hatchery, Burnett Inlet Hatchery, facilities in the Ketchikan area, the Anita Bay remote release site, and the Neck Lake remote release site at Whale Pass all contribute coho salmon to the Districts 6 and 8 fisheries. Inseason estimates from coded-wire tag recovery data will be used to identify the hatchery component of the harvest.

### **Screen Island Shore Drift Gillnet**

Regulation 5 AAC 33.310(c)(2)(B) allows drift gillnetting along the Screen Island shore of Section 6-D only during the early and late portions of the season. Specifically, this area encompasses those waters of Section 6-D west of a line from Mariposa Rock Buoy to the northernmost tip of Point Harrington to a point on the shore of Etolin Island at 56°09.60' N. latitude, 132°42.70' W. longitude to the southernmost tip of Point Stanhope. Actions by the BOF, based on an agreement between drift gillnet and purse seine representatives at the board meeting in February of 2000 increased the fishing time for drift gillnetting in this area by one week on each end of the closure. The periods when fishing may be allowed are now: 1) from the second Monday in June (June 14) through the first Saturday in August (August 7) and, 2) from the first Sunday in September (September 5) until the season is closed. During this time, drift gillnetting is allowed during the same time periods that the adjoining waters of Section 6-C are open.

## **TAKU/SNETTISHAM GILLNET FISHERY**

### **INTRODUCTION**

The Taku/Snettisham (District 11) gillnet area encompasses Section 11-B (Taku Inlet, Port Snettisham, and Stephens Passage north of Midway Island) and Section 11-C (Midway Island

south to a line from Point League to Point Hugh). This fishery has traditionally targeted sockeye salmon during the early portion of the season and fall chum and coho salmon later in the season. In recent years, the fishery has also targeted hatchery summer chum and sockeye salmon. Since 2005, a directed Chinook salmon fishery will occur in District 11 when run strength is sufficient.

## **2010 OUTLOOK**

### **Chinook Salmon**

The directed Chinook salmon fishery in District 11 had been closed since 1975 in order to rebuild Taku River stocks. In 2005, negotiations with Canada successfully established abundance based fishing regimes and harvest sharing arrangements. Directed Chinook fisheries took place in 2005 with an adequate preseason forecast, and in 2006 when inseason information indicated an allowed catch (AC) was available. In 2007 and 2008, both preseason and inseason Chinook run estimates did not allow for directed fisheries in District 11. Based on an updated spawner-recruit analysis completed in early 2009 by ADF&G sport fish biometricians, the U.S. and Canada agreed to a revised escapement point goal of 25,500 large Chinook salmon with a range of 19,000 to 36,000 fish. This reduction from the previous escapement goal range of 30,000 to 55,000 large Taku Chinook salmon is likely to result in more consistent directed fisheries in District 11. The 2010 preseason forecast of 41,328 large Chinook salmon provides an AC of 1,781 fish to be targeted by the directed gillnet, troll, and sport fisheries in District 11

### **Sockeye Salmon**

The total return of wild Taku River sockeye salmon in 2010 is expected to be below average. This is based on both spawner-recruit analysis, sibling forecast and ocean survivals. The 2005 main parent year escapement of 120,100 fish was above the PST escapement goal 75,000 fish, as well as the 10-year average escapement of approximately 112,500 sockeye salmon. The 2006 parent year had an escapement of 146,200 fish. Adult returns to date from the joint U.S./Canada Taku River sockeye salmon enhancement project at Tatsamenie Lake have been low and the number of enhanced sockeye salmon returning to Tatsamenie Lake is not expected to contribute significant numbers of fish to harvest in 2010.

Escapement through the Speel Lake weir of the 2005 parent year was 7,500 sockeye salmon, and the escapement in 2006 was 4,150 sockeye salmon, both within the escapement goal range of 4,000–13,000 sockeye salmon. Beginning in 2005, DIPAC has operated side scan sonar to monitor salmon escapements into Crescent Lake. Although all species of salmon enter Crescent Lake, the majority are thought to be sockeye. The sonar count in 2005 was 18,833 fish, and in 2006 was 11,492 fish. The 2005 to 2009 average sonar count is approximately 8,500 fish.

Enhanced sockeye salmon returning to DIPAC's Snettisham Hatchery, based on DIPAC's forecast is 198,000 fish, greater than last year's return of 113,200.

### **Chum Salmon**

In 2010, approximately 823,000 summer chum salmon are forecast to return from DIPAC hatchery releases in Gastineau Channel, and 150,000 chum salmon from Limestone Inlet remote releases. The total estimated DIPAC chum salmon contribution to the Section 11-B drift gillnet fishery is 454,000 fish. Returns of fall chum salmon to the Taku River are expected to be weak but similar to recent seasons.

## **Pink Salmon**

Returns of pink salmon to District 11 systems are expected to be average to below average in 2010. Parent year pink salmon escapements to District 11 were below both management target ranges and the recent 10-year average. Pink salmon counted through the Taku River Canyon Island fish wheels in 2008 were 39% of the even-year average, indicating below average escapement.

## **Coho Salmon**

The return of Taku River coho salmon is expected to be slightly below average. The 2007 parent-year escapement to Canadian portions of the Taku River was 49,700 fish, below average but above the minimum escapement goal. The forecast return, based on an average outmigration of 1.96 million smolt in 2009 and a marine survival of 8.6% projects to a total return of 163,000 adults. This compares to the average 10-year total return of 183,400 adults.

DIPAC projects a 2010 return of approximately 34,000 hatchery coho salmon from their smolt releases into Gastineau Channel.

## **MANAGEMENT GOALS**

Management goals for the 2010 Taku/Snettisham drift gillnet fishery are as follows:

1. Provide for sufficient salmon spawning escapements to Taku River, Port Snettisham, and Stephens Passage streams while harvesting those fish in excess of escapement needs;
2. Monitor the incidental harvest of Chinook salmon to stay within the BOF Southeast drift gillnet allocation of 2.9% of non-Alaska hatchery Chinook salmon;
3. Manage the fishery consistent with current provisions of the PST (5 AAC 33.361);
4. Maximize the harvest of hatchery-produced chum salmon returning to Limestone Inlet while minimizing the incidental harvest of Port Snettisham wild sockeye salmon;
5. Manage the return of enhanced Port Snettisham sockeye salmon consistent with the Board of Fisheries Snettisham Hatchery Management Plan (5 AAC 33.378);
6. Manage the Speel Lake sockeye salmon return to achieve an escapement to the lake of between 4,000 to 13,000 spawners. This goal is a biological escapement goal based on an updated analysis completed during the winter of 2002–2003;
7. Manage the District 11 directed Chinook salmon fishery to harvest large adult Chinook salmon in accordance with the PST Treaty and the BOF District 11 Chinook salmon management plan.

## **MANAGEMENT PLAN**

The District 11 gillnet fishery will be managed in accordance with the TBR Annex of the PST. Harvest sharing arrangements for Chinook, sockeye, and coho salmon through the 2010 fishing season are specified in the annex.

## **Chinook Salmon**

The first directed Chinook salmon drift gillnet commercial opening will occur once an inseason estimate of abundance is available. This is anticipated to occur mid-May but is dependent on the number of tags recaptured in the joint US/Canadian mark recapture project. The allowable harvest will be based upon inseason projections, which are derived from returning Chinook

salmon caught and tagged at the Canyon Island fish wheels. Due to the small Allowable Catch, the department anticipates weekly openings will consist of no more than one 24 hour fishing period per week once the directed fishery begins. Early in the season line closures may be in effect at the latitude of Jaw Point to protect milling fish off the flats. Per regulation, commercial fishery openings will begin on Mondays at 12:01 P.M. and close as specified in news releases. There will be no openings on weekends or holidays. The time and area of commercial openings will ultimately depend upon the numbers of boats fishing, the numbers of Chinook salmon harvested, and results from stock assessment projects.

Regulations require a 7-inch minimum mesh size through the third Saturday in June for the District 11 fishery. The standard 200 fathom length and 60 mesh deep net restrictions will apply to this fishery.

The waters open to drift gillnet fishing prior to the third Sunday in June are the waters of Section 11-B north of the latitude of Graves Point Light. The western boundary is the 11-A/11-B section boundary (Point Bishop to Point Arden).

Chinook salmon less than 28 inches long that are harvested in the commercial drift gillnet fisheries may be retained and sold as usual. Chinook salmon less than 28 inches in length and those of Alaska hatchery origin will not be counted against the Alaskan share of the allowable harvest. Processors are requested to identify the numbers of Chinook salmon less than 28" on the fish tickets as well as the numbers of Chinook salmon 28 inches or greater. Fish and Game samplers working at the processing facilities will identify hatchery-reared Chinook salmon so those fish are not counted against the Alaskan share of the harvest.

### **Sockeye Salmon**

Section 11-B will open for directed sockeye salmon fishing on the third Sunday in June (June 20) for a 3-day fishing period. If Chinook salmon conservation is a concern then a shorter opening and/or an area restriction may be implemented. Subsequent openings will be based on inseason fishery performance and stock assessment information.

The District 11 fishery will be managed through mid-August primarily on the basis of sockeye salmon abundance. Run strength will be evaluated using fishery catch and CPUE data, and weekly inriver run size estimates derived from the Taku River fish wheel mark-recapture project operated at Canyon Island. Contribution of enhanced stocks of sockeye salmon will be estimated inseason by analysis of salmon otoliths sampled from the commercial harvests. The age and stock compositions of the harvest of wild sockeye salmon will be estimated after the fishing season by analysis of scale pattern and parasite incidence data from commercial catch samples.

Due to the anticipated below average return of Tatsamenie Lake sockeye salmon, fishing time in Section 11-B north of Circle Point may be limited to 2 days per week during the peak of the Tatsamenie return (statistical weeks 30 to 32).

The return of enhanced Port Snettisham sockeye salmon will be managed according to the Board of Fisheries' Snettisham Hatchery Management Plan. The plan provides basic guidelines for managing enhanced sockeye salmon production from Port Snettisham including the following provisions, in order of priority:

1. Sustainable production of wild sockeye salmon from Crescent and Speel Lakes;

2. Management of enhanced Snettisham sockeye salmon returns may not prevent achieving escapement goals or PST harvest sharing agreements for Taku River salmon stocks;
3. Assessment programs shall be conducted to estimate Snettisham wild sockeye salmon stock escapements and contributions of enhanced sockeye salmon to the District 11 commercial fishery;
4. Common property harvests in the Speel Arm SHA shall be conducted by limiting time and area to protect wild sockeye salmon returns.

Management of the fishery in Stephens Passage will focus on conservation of the wild Snettisham sockeye salmon stocks, particularly in July. The department intends to implement extensive use of 6-inch minimum gillnet mesh size restrictions in Section 11-B south of Circle Point in order to limit harvest rates on wild Snettisham sockeye salmon and yet allow harvest of enhanced chum salmon returning to the Limestone remote release site. The mesh restriction in Section 11-B may be relaxed at the end of July or after the peak migration timing of wild Snettisham sockeye salmon stocks through Stephens Passage.

A personal use fishery will be allowed in Sweetheart Creek to ensure enhanced returns to this site are fully utilized; Sweetheart Creek is naturally blocked to anadromous fish migration several hundred yards upstream from the mouth. The Sweetheart Creek personal use fishery will be open 7 days per week.

Pink salmon will be harvested in Section 11-B incidental to the sockeye salmon and enhanced summer chum fisheries. Fishing time for a directed pink fishery in Section 11-C will depend upon the strength of pink salmon returns in lower Stephens Passage, Seymour Canal, and the northern portions of District 10. Returns will be closely monitored and if surpluses are present, openings could occur in August.

### **Coho and Fall Chum**

Beginning in mid-August, management of the Taku/Snettisham gillnet fishery will be based on the run strength of coho and fall chum salmon. The TBR Annex of the PST calls for the U.S. to manage its fisheries to achieve a minimum above-border run size of 38,000 coho salmon. Inseason management will be based on evaluation of the fishery catch, effort, and CPUE relative to historical levels, inriver run size estimates from the Taku River mark-recapture project, and recovery of coded wire tagged wild Taku River and hatchery coho salmon in marine fisheries. Coho salmon is the primary species managed during the fall season.

In order to avoid conflicts with sport fisheries, the District 11 drift gillnet fishery will not be open concurrent with the 2010 Juneau Golden North Salmon Derby (August 13–15). Consequently, during Statistical Week 34, the District 11 gillnet fishery will not open until Monday, August 16.

## **LYNN CANAL GILLNET FISHERY**

### **INTRODUCTION**

The Lynn Canal drift gillnet fishery operates in the waters of District 15. The district is divided into 3 regulatory sections: 15-A (upper Lynn Canal), 15-B (Berners Bay), and 15-C (lower Lynn Canal). The Lynn Canal drift gillnet fishery targets sockeye, summer chum, coho, and fall chum salmon. Chinook and pink salmon are taken incidentally.

The sockeye salmon runs in Lynn Canal have historically been among the largest in Southeast Alaska. The coho and fall chum salmon runs to the Chilkat River are among the largest in northern Southeast Alaska. In recent years Chilkat Lake sockeye, Chilkat River mainstem sockeye, coho and fall chum salmon stocks have been productive and meeting escapement goals. Production of Chilkoot Lake sockeye salmon has been below average since 2008 and is not expected to improve in 2010. The department believes that the decline in Chilkoot Lake sockeye salmon production is caused by a downturn in zooplankton production during 2004 through 2005 brood years. Zooplankton production and hydroacoustic estimates since 2005 has improved. Returns of Chilkoot Lake sockeye salmon are expected to improve in 2011. The 2010 return of Chilkat Lake sockeye salmon is expected to be average and below the 2009 return. Sockeye salmon production from Chilkat Lake has increased in recent years.

Sockeye salmon are targeted from June through early September. The primary stocks originate from Chilkat Lake, Chilkoot Lake, Berners Bay rivers, and mainstem spawning areas of the Chilkat River. Hatchery and wild summer chum salmon are harvested from late June through early August. Fall chum and coho salmon are targeted from September through early October. The primary fall chum salmon stocks originate in the Klehini and Chilkat rivers. Coho salmon stocks originate from the Chilkat and Berners Bay river systems.

During the 2009 Board of Fish meeting revised escapement goals for Chilkoot and Chilkat Lake sockeye salmon were presented based on an updated spawner-recruit analysis. Weekly escapement targets for Chilkoot Lake sockeye salmon are based on the historical run timing of fish through the Chilkoot River weir. Chilkat Lake sockeye salmon escapement goals are now based on a weir count corrected series of data based on years where mark-recapture estimates were used to estimate escapement of this stock. Continuing in 2010, sockeye and coho salmon escapement to Chilkat Lake will be assessed with a DIDSON (Dual frequency Identification SONar) system. This new technology has allowed the department to monitor the escapement of Chilkat Lake sockeye salmon during all environmental conditions and will allow the department to review escapement goals for this stock. This equipment has enabled department crews to monitor Chilkat Lake salmon escapement during flow reversal and bad weather events and during periods of high boat traffic.

### **MANAGEMENT GOALS**

The overall management goal is to achieve desired spawning escapement levels (Table 8) while harvesting the available surplus for a long-term maximum sustainable yield of all Lynn Canal salmon stocks. Escapement to Chilkoot Lake is monitored by a weir located on the outlet of Chilkoot Lake. Escapements to Chilkat River and Chilkat Lake are monitored using fish wheels operated in the lower Chilkat River and a weir/DIDSON located near the outlet to Chilkat Lake. Other stocks in the general Lynn Canal area are monitored by aerial surveys, foot surveys, or mark-recapture studies. Specific management goals for the 2010 Lynn Canal drift gillnet fishery and formal escapement goals are as follows:

1. Obtain an escapement of between 38,000 and 86,000 (weir count units) sockeye salmon to Chilkoot Lake.
2. Obtain an escapement of between 70,000 and 150,000 sockeye salmon to Chilkat Lake. The escapement will be monitored in season by the lower Chilkat River fish wheel project and the final escapement will be derived from DIDSON counts at the outlet of Chilkat Lake.

3. Obtain an escapement of between 1,750 and 3,500 3-ocean age and older king salmon to the Chilkat River.
4. Obtain a peak foot escapement count between 4,000 and 9,200 coho salmon to Berners River.
5. Obtain a peak index stream count for Chilkat River drainage coho salmon that corresponds to a total escapement of 30,000 to 70,000 fish.
6. Provide for sufficient chum, coho, and pink salmon spawning escapements to the Chilkat, Chilkoot, and Berners rivers and other Lynn Canal systems, while harvesting those fish in excess of escapement needs.
7. Harvest all DIPAC hatchery-produced chum salmon available in the Boat Harbor Terminal Harvest Area or in the Vanderbilt Reef (Postage stamp) area while conserving wild stock summer chum salmon migrating to streams on the western shoreline of Lynn Canal and other wild stocks originating in upper Lynn Canal.

## **2010 OUTLOOK**

### **Sockeye Salmon**

The 2010 forecasted return of Chilkat Lake sockeye salmon is expected to be near average. The expected total return may be near the 1979 to 2009 historical average of 208,300 fish. Sockeye salmon smolt information formed the information base to predict future returns of this stock through 2009. Due to funding constraints, the department has not collected this information since 2008. Therefore sockeye returns for 2010 are not predictions but may be characterized as general expectations based on escapement and lake rearing conditions. The 2010 run size of Chilkat River mainstem sockeye salmon is also expected to be slightly above average.

Chilkat Lake escapement estimates of 119,000 and 84,000 during the 2004 and 2005 parent years were within the sustainable escapement goal range of 70,000 to 150,000. Although no smolt estimates are available for the dominant smolt years (2007 and 2008) for the 2010 return, the average size and weight of age-1.0 and age-2.0 smolt sampled were near or above the historical average in 2006 and 2008 indicating productive rearing conditions in Chilkat Lake. The average weight and length of age-1.0 Chilkat Lake sockeye salmon smolt in 2008 were above average. On average, 72% of the Chilkat Lake sockeye salmon escapements are 3-ocean age fish (34.1% are age-1.3 fish, 37.8% are age-2.3 fish and 0.2% is age-3.3 fish. Approximately 31% of this run is fish that have spent 2 years in the marine environment, or 2-ocean age fish. The age composition of the 2009 run of 2-ocean age fish was near average indicating an average return of 3-ocean age fish in 2010.

Mark-recapture estimates of the Chilkat River mainstem sockeye salmon escapements in 2005, 2006, and 2007, (the dominant parent-years) were 50,800, 24,000 fish and 20,000 fish, respectively. Escapement estimates during the parent years for the 2010 return were near the historical 1994 to 2009 average of 33,000 fish for all brood years except 2005 which greatly exceeded this average. The dominant age classes for this run includes age-0.2 (20.5%), age-0.3 (38.0%), and age-1.3 (29.0%) fish. The proportion of age-0.2 and age-1.2 fish of the 2009 escapement was above average indicating that the 2010 return of age-0.3 and 1.3 fish to the mainstem Chilkat River may be slightly above average in run strength. The Lower Chilkat River

fish wheel project has been providing inseason stock assessment and post-season escapement estimates of Chilkat River mainstem sockeye salmon since 1994.

Returns of Chilkoot Lake sockeye salmon in 2010 are expected to be well below average. The total return of 80,500 Chilkoot Lake sockeye salmon in 2005 (dominant brood year) was well below average. The Chilkoot Lake sockeye salmon weir count during the dominant parental brood year (2005) for the 2010 return was 51,200 fish, within the desired escapement goal range. The Chilkoot River weir is used to collect scale samples for age composition, and to monitor the escapement of this stock during the commercial fishing season.

The reason production is expected to be down for the 2010 return of Chilkoot Lake sockeye salmon is due to a severe drop zooplankton production in 2005 possibly caused by the very warm summer weather in 2004 and 2005. The 2006 fall hydroacoustic pre-smolt estimate and zooplankton density was well below average indicating poor lake rearing conditions in 2005. Due to expected low returns of Chilkoot Lake sockeye salmon the department will implement management decisions in the commercial drift gillnet salmon fishery to achieve target escapement levels within the escapement goal range for this stock. Smolt and zooplankton abundance have improved since 2008.

Age composition of the 2009 escapement was near average for most of the dominant age classes with the exception of age-1.2 fish. The proportion of age-1.2 fish in the 2009 Chilkoot Lake escapement was well above average. Given this information, the department is expecting a poor return of Chilkoot Lake sockeye salmon for 2010. Management decisions will continue to be based on inseason escapement data and site specific sampling results from the District 15 drift gillnet fishery.

An average run of Berners Bay sockeye salmon is expected in 2010 for similar reasons the Chilkat River mainstem run is expected to be average in run strength. Total escapement estimates are not available for Berners Bay sockeye salmon systems. Peak aerial escapements to Berners Bay streams were near or generally above average for all brood years. The average dominant age classes for Berners Bay streams are age-1.3 (63.7%), age-0.3 (18.4%), and age-1.2 (12.8%). The proportion of age-0.2 fish in the 2009 escapement was near the historical average indicating an average return of age-0.3 fish in 2010. The 2006 and 2007 commercial harvests of Berners Bay and Chilkat River mainstem sockeye salmon were estimated at 10,200 and 17,300 fish respectively. These harvests are below and near the historic 1976 to 2009 average harvest of 15,000 fish.

### **Summer Chum Salmon**

The majority of the summer chum salmon production in the district is from hatchery releases at Amalga Harbor and the Boat Harbor terminal harvest areas by the Douglas Island Pink and Chum Salmon Inc. (DIPAC). DIPAC has been enhancing the chum salmon returns to Lynn Canal since 1987. Projections for the Boat Harbor Terminal Harvest Area chum salmon return in 2010 is approximately 231,000 fish. This forecast return is below the 2009 return and 1.14 times the 1991–2009 average of 202,381 fish. The preseason projection for the Amalga Harbor chum salmon return is approximately 947,000 fish, 82% of the 1991–2008 average of 1,160,000 million fish.

Based on parental-year escapement counts, the wild summer chum salmon return in 2010 should be average in run strength but at a much lower scale than the hatchery summer chum salmon return.

The majority of the summer chum salmon harvest in lower Lynn Canal is comprised of hatchery fish from remote release sites at Boat Harbor and Amalga Harbor. Smaller numbers of wild chum salmon are produced from local area streams such as Sawmill Creek and other Berners Bay rivers on the eastern side of Lynn Canal. The Endicott, Beardslee, and St. James Bay rivers on the western side of Lynn Canal are also important contributors to the wild summer chum harvest in the drift gillnet fishery.

Peak aerial escapement counts of summer chum salmon in Sawmill Creek in 2005, 2006, and 2007 were 900, 670 and 600 fish respectively. The peak aerial escapements are well below the 1997–2009 average for this index system for all brood years. Combined peak counts of chum salmon in Endicott River for the same brood years were 18,750, 2,000, and 2,500 fish respectively. All peak counts conducted during these brood years were above average for 2005 but well below average in 2006 and 2007.

### **Fall Chum Salmon**

The 2010 return of Chilkat River drainage fall chum salmon stock is expected to be above average. For the Chilkat River parent years, the peak aerial survey counts were 55,400 and 2,000 fish. These counts were well above the peak aerial escapement count average of 23,000 fish in 2005 and below average for 2006. No late aerial surveys were completed in 2006 therefore the peak count of 2,000 fish in 2006 does not indicate a poor escapement as this run typically peaks during the late fall. Peak aerial survey counts in the Klehini River were 1,400 and 13,600 fish respectively, below average for 2005 and above average in 2006. The total drainage wide estimated escapement in 2005 and 2006 based on mark-recapture index methods was 208,000 and 704,000 chum salmon. These estimates are above average for years where total drainage escapements estimates are available.

The commercial harvest during the dominant parental brood years (2005 and 2006) was above the previous 10-year average. Generally, escapements of Klehini River and Chilkat River fall chum salmon in recent years have improved. Fish wheel counts, mark-recapture estimates and aerial escapement surveys in recent years have indicated an increasing trend in abundance for this stock. A relationship index between fish wheel catch and mark-recapture estimates has been developed for this stock. During the years 2002 to 2005, on average, the fish wheel catch is approximately 1.5% of the total number of fall chum salmon returning to the Chilkat River drainage.

### **Coho Salmon**

The Chilkat River drainage coho salmon return is expected to be average during 2010. Coho salmon systems in the district include the Chilkat River, Berners River and Chilkoot River. Parent-year survey counts at the Chilkat River tributaries and Chilkoot River drainage were generally good and above the 10-year average. The 2006 and 2007 escapements to Berners Bay (5,220 and 5,470) were well within the escapement goal range of 4,000 to 9,200 fish.

Sport Fish Division has been conducting coho salmon smolt coded-wire tagging (CWT) studies on the Chilkat River to estimate smolt size, age structure, and production of coho salmon smolts and marine survival of adult coho salmon since 1999. The 2006 and 2007 Chilkat River fish

wheel catches of 4,889 and 1,658 coho were above the 1997–2009 average in 2006 and below average in 2007. Chilkat River index stream escapements for coho salmon in 2006 and 2007 were 80,700 and 24,600 fish, respectively. These escapement counts were above the escapement goal range in 2006 and below goals in 2007. Estimates of harvest were above and below the previous 10-year average for both brood years, respectively. Forecasts for Lynn Canal coho stocks are based on recent marine survival trends, trapping CPUE and escapement estimates. Prior to 2005, the average marine survival for years 1999 to 2003 for Chilkat River coho salmon was 11.4%. In recent years, the average marine survival has dropped to 7.1% in years 2005 to 2008. The 2008–2009 return exhibited a marine survival rate of 11 to 12%, an increase over recent years. If marine survival rates are similar to 2009, the Chilkat River coho salmon return could be better than average.

Coho salmon production from streams in Berners Bay continues to be in decline. Coho salmon smolt production in Berners Bay has been below average since 2005 and this trend is continuing. Marine survival for this stock has decreased in recent years as well from a 1990–2004 average of 17.5% to a 2005–2009 average of 10.7%. A roughly similar proportionate decline in smolt production and marine survival has been observed in the Chilkat, Taku and Auke Creek drainages.

### **Chinook Salmon**

The 2010 preseason inriver abundance forecast for large ( $\geq$  age 1.3) Chilkat River Chinook salmon is estimated to be near historical averages and within the inriver abundance goal range of 1,850 to 3,600 fish. Since the preseason forecast is projected to be within the inriver abundance goal range, the northern line in Chilkat Inlet will move northward to Glacier Point on the third week of the season and may be moved to the latitude of Cannery point by the fourth week of the season depending on sockeye and Chinook salmon run strength as indicated by the lower Chilkat River fish wheel and drift net projects.

## **MANAGEMENT PLAN**

In 2010, ADF&G intends to manage the summer Lynn Canal drift gillnet fishery to obtain the mid-points of the established escapement goal ranges for all salmon stocks. The department intends to manage the fishery to minimize harvest of wild stock summer chum salmon while harvesting returns of hatchery chum salmon in Section 15-C. The fall Lynn Canal drift gillnet fishery will be managed to conserve Klehini River (early-run) fall chum salmon while providing opportunity to harvest Chilkat River fall chum and coho salmon if run strength indicates a harvestable surplus. It is anticipated that area, time and gear restrictions will be in place to protect projected poor returns of Chilkoot Lake sockeye salmon during the summer season.

### **Section 15-A**

Section 15-A will open for 2 days south of the latitude of Seduction Point beginning 12:01 PM Sunday June 20 (statistical week 26) with no mesh restriction. If the Chilkoot River weir count through June 17 is less than 2,500 sockeye salmon, the eastern side of Section 15-A will be closed. If the weir count is 2,500 sockeye salmon or greater on June 17, the eastern portion of 15-A may be opened in the area south of Seduction Point. During the first 3 weeks of the season, Chilkat Inlet will be managed in accordance to the Chilkat River King Salmon Fishery Management Plan. Since the preseason forecast for Chilkat River drainage Chinook salmon is within the goal range, during the first 2 weeks of the season, Chilkat Inlet will be closed north of

the latitude of Seduction Point. In week 28, Chilkat Inlet may be open south of the latitude of the Glacier Point-Twin Coves line. In week 29, Chilkat Inlet may be open south of the latitude of Cannery Point or at the latitude of the northernmost tip of Kochu Island. Chilkat Lake sockeye salmon run strength as measured by the lower Chilkat River fish wheel project will dictate commercial fishery openings in Chilkat Inlet after statistical week 28. It is likely that the northern boundary line within Chilkat Inlet will remain at the northernmost tip of Kochu Island or Cannery Point for the remainder of the summer season if escapements of Chilkat Lake sockeye salmon are projected to be within the escapement goal range. ADF&G is forecasting a poor return of sockeye salmon to Chilkoot Lake and an average Chilkat Lake and slightly above average Chilkat River mainstem sockeye salmon return. It is likely that openings in northern Section 15-A will be similar to openings during the 2009 season. Decisions will be dictated by the results of various in season stock assessment programs operating on the Chilkat and Chilkoot River drainages. Fishing opportunity is expected to be very limited in Chilkoot Inlet and eastern Lynn Canal in 2010 to conserve Chilkoot Lake sockeye salmon. If the inseason information system indicates that the Chilkat Lake sockeye salmon return is not forecasted to meet minimum escapement goals, limits in time and area of western and northern Section 15-A will be implemented until the department can project sockeye escapement within desired goal ranges. Six-inch minimum mesh size gear restrictions may be in place to reduce the harvest rate on Chilkat Lake sockeye salmon during the late summer and fall season if necessary. Data from the Chilkat River fish wheel mark-recapture program and from the commercial fishery will be used to judge run strength inseason for Chilkat River drainage salmon stocks.

Chilkat mainstem sockeye salmon returns overlap with Chilkat Lake sockeye returns and peaks in early to middle July followed by late run Chilkat Lake sockeye salmon, which dominate during August. Return timing is tied to freshwater age: mainstem sockeye salmon are predominantly age 0, Chilkat Lake early run fish are predominantly age 1, and Chilkat Lake late run fish are predominantly age 2.

Fall fishery management in Section 15-A will begin from statistical week 34 (August 15) until the end of the season. As in recent years, the northern boundary line in Section 15-A will move northward in stages as the coho and fall chum stocks begin to migrate back to parental streams. Depending on effort levels, and coho and fall chum salmon run strength, fishing opportunity in Section 15-A may be similar to openings in 2009. Fisherman are reminded that any extensions in fishing time during the fall season could be announced with little advanced notice as requested by industry at the 2009 drift gillnet task force meeting. Extensions in fishing opportunity will be based on results of in river stock assessment and projected escapement in comparison to escapement goals.

### **Section 15-B**

During years of high coho salmon abundance, openings in Section 15-B (south of the latitude of Cove Point) occurred for 2 or 3 days from week 38 through the end of the season. Inseason information collected from coded wire tag recoveries and commercial harvest from various gear types will provide the data to manage fishing opportunity in Section 15-B. Since the preseason forecast is for a below average return of coho salmon for Berners Bay streams, it is unlikely that openings within Berners Bay will occur in 2010. Inseason information collected from coded wire tag recoveries and commercial harvest from other gear types will provide the data to manage commercial fishing opportunity in Section 15-B.

## Section 15-C

Section 15-C will open for 2 days beginning 12:01 PM Sunday, June 20 with a 6-inch minimum mesh size restriction except for the Boat Harbor terminal harvest area. If the Chilkoot River weir count is less than 2,500 sockeye salmon through June 17, the eastern side of Section 15-C will be closed north of the latitude of Bridget Point (excluding the Boat Harbor Terminal Harvest Area).

Due to the below average expected returns of Chilkoot Lake sockeye salmon, open fishing time in Section 15-C will be limited to 2 or 3 days (except for the Boat Harbor THA). If in season projections for the Chilkat or Chilkoot Lake sockeye salmon returns are below the escapement goal range projection, it is possible that additional time, area, and gear restrictions be placed in Section 15-C during the summer season to boost escapement of sockeye salmon to desired levels.

To provide adequate escapements for northbound wild salmon stocks while providing opportunity to harvest enhanced chum salmon, some openings may be limited to the small area in eastern Section 15-C (known as the “postage stamp area”) and defined as:

the waters of Section 15-C from the eastern shoreline of Lynn Canal at the latitude of Vanderbilt Reef Light to Vanderbilt Reef Light and east of a line from Vanderbilt Reef Light to Little Island Light.

Depending on effort and escapement levels, this area could open on the 3<sup>rd</sup> and/or 4<sup>th</sup> day during peak weeks (statistical weeks 27 through 31) of the hatchery chum salmon return. This strategy will be used to provide opportunity to harvest summer chum salmon while reducing the harvest of northbound wild salmon stocks migrating through section 15-C. The decision to use this strategy will be considered inseason based on Chilkat River fish wheel counts, Chilkoot Lake weir counts, aerial survey results and results from site-specific sampling of the commercial fishery. Since the Chilkoot Lake sockeye salmon return is expected to be very poor, openings in eastern Section 15-C could be limited to just the postage stamp area.

Management of the Boat Harbor Terminal Harvest Area (THA) will be opened for extended periods beginning in week 27, (June 27). Management of this THA is described under the heading **DOUGLAS ISLAND PINK AND CHUM, INC. TERMINAL AREA FISHERIES**.

Fall season management will begin in statistical week 34 (August 15) in Section 15-C. Management of Section 15-C during the fall season will be based on overall coho and fall chum salmon run strength and fishing effort levels. Commercial fishing effort will be directed at harvesting coho and fall chum salmon in Section 15-C in excess of escapement needs. Fishing time will more likely be limited from 2 to 3 days each week in the fall season. Any extensions to area or fishing time in the fall season will depend on the results of various stock assessment projects in the Chilkat and Chilkoot watersheds. Extensions could be announced without advance notice during the fall season if salmon returns warrant. Shortened extension notice was requested by industry during the 2009 drift gillnet task force meeting.

In order to avoid conflicts with sport fisheries, the District 15 drift gillnet fishery will not be open concurrent with the 2009 Juneau Golden North Salmon Derby (August 13–15). Consequently, during Statistical Week 34, the District 15 gillnet fishery will not open until Monday, August 16.

As in previous years, ADF&G's management crews, as part of the marine fishery performance project, will be on the fishing grounds during commercial fishing periods to sample sockeye and Chinook salmon and to monitor the fishery during each opening. ADF&G respectfully requests that commercially caught sockeye and Chinook salmon are retained in separate fish holds or totes so department staff can collect scale and length data from salmon while on the grounds monitoring the fishery. The sockeye salmon scale samples that are collected from the commercial gillnet fishery form the basis of our stock separation analysis and is a very important part of the management of this fishery. ADF&G vessels stand by on channel 10 VHF when on the fishing grounds.

## **TERMINAL HARVEST AREA FISHERIES**

During the 2010 season, drift gillnet terminal area fisheries can be expected in Deep Inlet, Neets Bay, Nakat Inlet, Anita Bay, Speel Arm, and Boat Harbor to harvest salmon returning to DIPAC, NSRAA, and SSRAA enhancement facilities.

### **NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION TERMINAL AREA FISHERIES**

The terminal hatchery fishery at Deep Inlet will be managed jointly with NSRAA and according to Board of Fisheries management plans. The open 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.

#### **Deep Inlet Terminal Harvest Area—[5 AAC 33.376]**

NSRAA expects a return of 1,078,000 chum salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2010. The cost recovery goal for the Deep Inlet return is 1,140,000 pounds corresponding to approximately 143,000 chum salmon. The brood stock goal for the Deep Inlet return is 60,000 fish. 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 some harvest is likely outside the THA by troll and purse seine gear as well.

The Deep Inlet THA fishery will be managed jointly with NSRAA, and in accordance with the Deep Inlet Terminal Harvest Management Plan (5 AAC 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 2009 meeting adopted a new regulation which modifies the time ratio of gillnet fishing time to purse seine fishing time during chum management (beginning the third Sunday in June) from 2:1 to 1:1. The time ratio of gillnet fishing time to purse seine fishing time during Chinook management will remain 2:1. Additionally, the Board of Fisheries has allowed trolling to occur when net fisheries are closed and when trolling does not interfere with cost recovery. During Chinook management (May 30 to June 19) gillnet fishing is scheduled on Mondays, Tuesdays, Thursdays and Fridays, and seine fishing scheduled on Sundays and Wednesdays. During chum management (June 20 to October 2) gillnet fishing is scheduled on Mondays, Tuesdays and Wednesdays, and seine fishing scheduled on Sundays, Thursdays and Fridays. Details of the rotational fishery schedule for Deep Inlet were announced in an ADF&G News Releases on April 30, 2010.

The NSRAA board has requested that the common property rotational fishery begin May 30 in order to provide for common property harvest of king salmon returning to the Medvejie Hatchery. NSRAA expects a return of 23,800 Chinook salmon to Medvejie Hatchery in 2010.

THA rotational gear fisheries are scheduled to begin on Sunday, May 30 and continue through June 19 with 4 days of gillnet and 2 days of seine per week.

Regulations allow ADF&G to require that commercial gillnets fished in the Deep Inlet THA prior to July 1 have a minimum mesh size of 6 inches. In 2010, drift gillnet fishermen will be required to fish with a minimum mesh size of 6 inches prior to June 19. The purpose of the minimum mesh restriction is to reduce the harvest of local wild sockeye salmon returning to Silver Bay that are passing through the Deep Inlet THA.

The NSRAA Board decided at their March meeting in Sitka to take a new approach to the Deep Inlet chum salmon cost recovery harvest this year. Cost recovery fishing will be conducted in August, when larger numbers of chum salmon begin entering the Deep Inlet THA, in an effort to conduct the harvest in as short a period as possible. NSRAA staff will monitor catch rates, sex ratios and run strength in making the decision as to when the THA should close to commercial fishing. The THA will reopen on the first day after the date cost recovery is completed.

The cost recovery closure is expected to begin sometime between August 8 and August 24. While every attempt will be made to give longer notice, the closure announcement may have to be made on less than 24-hour notice. Every effort will be made to close fishing at a time the 1:1 ratio is in balance, however a closure may occur, where the 1:1 ratio is not in balance. NSRAA's board decided that this closure may only occur after the first seine day of a 4-day block. In this case, the seiners would be 1 day ahead in the 1:1 ratio at the time of the closure.

The NSRAA Board decided that the re-opening schedule after cost recovery is complete will occur as follows depending on when during the week cost recovery is completed: **Case 1:** Fishing will resume the day immediately following the completion of cost recovery, with 2 troll days, followed by the rolling schedule until the end of the season: **Case 2:** Fishing will resume the day immediately following the completion of cost recovery, with 2 troll days, followed by one seine day, followed by 2 gillnet days, then the rolling schedule resumes until the end of the season. This schedule maintains the 1:1 ratio, by adding an extra gillnet day in the week immediately following completion of cost recovery.

The Deep Inlet THA is described as follows:

**Deep Inlet THA:** Deep Inlet, Aleutkina Bay, and contiguous waters south of a line from a point west of Pirates Cove at 135°22.63' W. longitude, 56°59.35' N. latitude 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 135°17.67' W. longitude, 57°00.30' N. latitude to a point on the southern side of the unnamed island at 135°16.78' W. longitude, 57°00.08' N. latitude and then to a point on the Baranof Island Shore at 135°16.53' W. longitude 56°59.93' N. latitude with the following restrictions: all waters of Sandy Cove and Leesofskaia Bay will be closed.

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 2009 by emergency order under authority of 5 AAC 39.325 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.

During the 2010 season, the boundaries of the Deep Inlet THA may be changed by Emergency Order 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 early September the Deep Inlet THA boundaries may be adjusted by the department 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 the Department or Alaska Wildlife Troopers may board some vessels and conduct hold inspections to ensure compliance or ADF&G staff may board some vessels in order to sample marked coho for coded wire tags.

### **Deep Inlet Cost Recovery**

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. The Silver Bay SHA is expanded to include the waters of Eastern Channel and Silver Bay enclosed by a line from Entry Point Light, to the southernmost tip of Harris Island, to the southernmost tip of Galankin Island, to Simpson Rock Light, to the southernmost tip of Makhnati Island, to Sentinel Rock, to the westernmost tip of Cape Burunof, to a point west of Pirates Cove at 135° 59.35' N. lat., to the westernmost tip of Long Island, to the westernmost tip of Emgeten Island, to the westernmost tip of Error Island, to the northernmost tip of Luce Island, and to the westernmost tip of Silver Point; through July 22 and after 12:01 A.M. the day before the troll coho salmon fishery is reopened in August. The Silver Bay SHA, from July 22 to 12:01 A.M. the day before the end of August coho salmon fishery closure, includes the waters of Eastern Channel and Silver Bay south of a line from Entry Point Light to the southernmost tip of Harris Island, to the southernmost tip of Galankin Island, and east of a line from Galankin Island to the northernmost point of 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 buy, to Black Rock, to the southernmost tip of Neva Island to the northernmost tip of Sasendi Island, from the southernmost tip of Volga Island , to the northernmost tip of Galankin Island. In addition, the Deep Inlet SHA is expanded to include the waters east of a line from the westernmost end of cape Burunof at 56°59.04' N Latitude, 135°23.23' W Longitude to a point west of Cape Burunof at 56° 59.11' N Latitude, 135° 23.59' W. Longitude to 57° 00.17' N. Latitude, 135° 22.69' W. Longitude to the westernmost tip of Long Island.

### **SOUTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION TERMINAL AREA FISHERIES**

The terminal hatchery fisheries at Neets Bay, Nakat Inlet, and Anita Bay will be managed jointly with SSRAA and according to Board of Fisheries management plans. The open drift gillnet

fishing times will be announced via news releases prior to, and during, the fishing season and are subject to change during the season by EO if necessary.

### **Neets Bay Terminal Harvest Area—[5 AAC 33.370]**

The department in consultation with SSRAA, shall manage Neets Bay to include those waters of Neets Bay east of the longitude of the easternmost point of Bug Island to the closed waters at the head of the bay. From the second Sunday in June (June 13) through August 1, the Neets Bay THA shall include those waters of Neets Bay east of the longitude of Chin Point to the closed waters at the head of the bay.

In 2010, SSRAA is expecting a total return of 1,118,000 summer chum, 203,000 fall chum, 165,000 coho, and 23,900 Chinook salmon to return to Neets Bay.

The Neets Bay fishery will open to all gear beginning at 12:01 A.M., May 1 and ending at 12:00 NOON June 10. During this time the fishery will be open concurrently to drift gillnet, purse seine, and troll gear unless closed by emergency order. Beginning at 12:00 NOON June 11 through 12:00 NOON, June 24, a rotational fishery according to 5 AAC 33.370 will be conducted for the drift gillnet and purse seine fleet. Details of the 2010 season fishing schedule at Neets Bay are available in a department news release issued April 30, 2010.

It is anticipated that SSRAA will be conducting cost recovery operations throughout the summer in the Neets Bay THA and additional rotational fisheries will not occur until cost recovery needs have been met. Additional fisheries in Neets Bay will be opened by ADF&G via emergency order in consultation with SSRAA.

### **Nakat Inlet Terminal Harvest Area—[5 AAC 33.372]**

Due to the Board of Fisheries action taken in February of 2009 the Nakat Inlet THA will include the waters of Nakat Inlet north of Surprise Point at 54°49.10' N. latitude and west of 130°42.75' W. longitude. In 2010, approximately 191,000 summer chum, 70,000 fall chum, and 20,000 coho salmon are expected to return to Nakat Inlet. Peak chum salmon catches from these releases are expected between mid-July to early-August for summer chum and late August to early September for fall chum and coho salmon.

The Nakat Inlet THA will be open from June 1 to November 10 concurrently to gillnet and troll gear. The 500 yard stream closure regulation [5 AAC 39.290 (1)] remained in effect.

### **Crystal Lake Terminal Harvest Area—[5 AAC 33.381]**

The initial projected Crystal Lake Chinook salmon total return is 1,700 adults. In the Wrangell Narrows (District 6) terminal area, around 510 are expected. Under provisions of the Wrangell Narrows-Blind Slough THA Management Plan the commercial fishery will be open to harvest 50% of the projected terminal return over 4,000 fish. Based on the forecast there is not likely to be surplus fish designated for commercial troll or gillnet harvest in the terminal area in 2010.

The total Crystal Lake Hatchery coho salmon return is expected to be 3,900 fish; of that, an estimated 1,950 fish will be available for sport and commercial harvest in the Wrangell Narrows-Blind Slough area. No commercial gillnet fishery is expected on these fish in 2010.

### **Anita Bay Terminal Harvest Area— [5 AAC 33.383]**

The Anita Bay THA consists of the waters of Anita Bay west of a line from Anita Point to 56° 14.26' N. latitude 132° 23.92' W. longitude.

In 2010, approximately 279,000 summer chum, 8,700 Chinook and 20,000 coho salmon are expected to be returning in total. The Anita Bay THA will be open to the harvest of salmon by troll, drift gillnet and purse seine concurrently from 12:01 a.m. Saturday, May 1 through 12:00 NOON June 12. Beginning June 13, the Anita Bay THA will be open according to a rotational schedule for purse seine/drift gillnet fisheries. The schedule will be the same as last year with the gillnet to seine fishing time ratio changing from 2:1 to 1:1 throughout the chum salmon return. Details of this schedule was developed by SSRAA and announced by the department in a News Release on April 30. The rotational schedule will remain in place until the August 31 at which point the terminal area will be open to all gear groups concurrently until November 10.

### **DOUGLAS ISLAND PINK AND CHUM INC. TERMINAL AREA FISHERIES**

#### **Boat Harbor Terminal Harvest Area**

Projections for the Boat Harbor Terminal Harvest Area chum salmon return in 2010 is approximately 231,000 fish. This forecast return is below the 2009 return and 1.14 times the 1991–2009 average of 202,381 fish. The preseason projection for the Amalga Harbor chum salmon return is approximately 947,000 fish, 82% of the 1991–2008 average of 1,160,000 million fish. The Boat Harbor Terminal Harvest Area (THA) will be opened for extended periods beginning in week 27, (June 27). The Boat Harbor THA is defined as: those waters within 2 nautical miles of the western shoreline of Lynn Canal south of the latitude of Danger Point at 58°41.73' N. latitude and north of a point 2.4 miles north of Point Whidbey at 58°37.05' N. latitude. The northern line of the Boat Harbor area will remain at the latitude of Danger Point through week 31. The purpose of this strategy is to decrease the harvest rate on Endicott River and other western Lynn Canal wild chum salmon stocks that migrate through this area during the summer season when large returns of hatchery chum salmon are present. This action has been in place for the last 6 seasons. Escapements of wild chum salmon to the Endicott River have improved because of this action.

The section within the Boat Harbor area west of a line from the entrance to the Boat Harbor proper area will be opened continuously beginning the first week of the season. This strategy will be used to harvest expected large returns of hatchery chum salmon that enter the Boat Harbor proper area with little risk to wild salmon stocks outside of this area.

#### **Speel Arm Special Harvest Area**

The forecast total return of Snettisham Hatchery sockeye salmon in 2010 is 198,000 fish. This is an increase from last year's total return of approximately 133,300 fish. This return will be principally harvested in the traditional District 11 commercial gillnet fishery. Common property fishery openings may occur during August in DIPAC's Speel Arm SHA, which is located in the waters of Speel Arm north of 58°03.42' N. latitude. Timing of openings in the SHA will depend on DIPAC's progress toward brood stock and cost recovery goals and the sockeye salmon escapement to Speel Lake. DIPAC cost recovery efforts in the SHA during July will be limited to waters in the immediate vicinity of the hatchery where wild and hatchery stocks are well segregated. Fishery management decisions for the Speel Arm SHA will be made jointly by

ADF&G and DIPAC. ADF&G and industry formalized the notification procedure for any extended fishery openings in Speel Arm.

The Southeast Alaska Drift Gillnet Task Force agreement specified:

1. That ADF&G include notice in the Southeast Alaska Drift Gillnet Fishery Management Plan that extended openings in Speel Arm could be expected on short notice once Speel Lake escapement goals are met;
2. That ADF&G include notice in the region wide news release on or near the end of July that extended openings in Speel Arm could be expected on short notice once Speel Lake escapement goals are met;
3. If an announcement is made for extended fishing time in Speel Arm, ADF&G shall provide a minimum of **6 hours** notice from the time of the news release to the time the fishery opens.

## REFERENCES CITED

- Eggers, D.M. and S.C. Heinl. 2008. Chum Salmon Stock Status and Escapement Goals in Southeast Alaska. Alaska Department of Fish and Game, Divisions of Sport Fish and Commercial Fisheries, Special Publication No. 08-19. Anchorage.
- Eggers, D.M., X. Zhang, R.L. Bachman, and M.M. Sogge. 2009. Sockeye salmon stock status and escapement goals for Chilkoot Lake in Southeast Alaska. Alaska Department of Fish and Game, Fishery Data Series No. 09-63, Anchorage.
- Ericksen R.P., and S. A. Fleischman. 2006. Optimal production of coho salmon from the Chilkat River. Alaska Department of Fish and Game, Fishery Manuscript No. 06-06, Anchorage.
- Ericksen, R. P., and S. A. McPherson. 2004. Optimal production of Chinook salmon from the Chilkat River. Alaska Department of Fish and Game, Fishery Manuscript No. 04-01, Anchorage.
- Shaul, L., E. Jones and K. Crabtree. 2005. Coho salmon stock status and escapement goals in Southeast Alaska [*in*] Der Hovanisan and H.J. Gieger, *editors*. Stock status and escapement goals for salmon in Southeast Alaska 2005. Alaska Department of Fish and Game, Special Publication No. 05-22, Anchorage.
- Tingley, A. and W. Davidson. 2010. Overview of the 2009 Southeast Alaska and Yakutat commercial, personal use, and subsistence salmon fisheries. Alaska Department of Fish and Game, Fishery Management Report No.10-15, Anchorage.

## FISHERY CONTACTS

The following people are Division of Commercial Fisheries contacts for this management plan:

---

Scott Kelley Region 1 Supervisor P.O. Box 110024 Juneau, AK 99811 (907) 465-4250	William Davidson Region 1 Management Coordinator 304 Lake Street, Room 103 Sitka, AK 99835 (907) 747-6688
Kevin Monagle or Dave Harris Area Management Biologists P.O. Box 110024 Juneau, AK 99811 (907) 465-4205	Scott Walker, Bo Meredith, or Justin Breese Area Management Biologists 2030 Sea Level Drive, Suite 205 Ketchikan, AK 99901 (907) 225-5195
Dave Gordon or Eric Coonradt Area Management Biologists 304 Lake Street, Room 103 Sitka, AK 99835 (907) 747-6688	Troy Thynes or Kevin Clark Area Management Biologists P.O. Box 667 Petersburg, AK 99833 (907) 772-3801
Randy Bachman Area Management Biologist P.O. Box 330 Haines, AK 99827 (907) 766-2830	Tom Kowalske Assistant Area Management Biologist P.O. Box 200 Wrangell, AK 99929 (907) 874-3822

---

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

Ketchikan:	(907) 225-6870
Petersburg:	(907) 772-3700
Juneau:	(907) 465-8905
Haines:	(907) 766-2830

## **TABLES AND FIGURES**

Table 1.—Southeast Alaska commercial drift gillnet salmon harvest, in numbers, by area, harvest type and species, 2009.

<b>Fishery</b>	<b>Chinook</b>	<b>Jacks</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>District 1</b>							
Traditional (Tree Point)	1,160	0	69,859	67,169	170,575	263,035	571,798
Terminal Harvest Area	3,760	2	748	1,353	3,477	76,124	85,464
Annette Island	627	0	7,540	30,457	113,077	120,025	271,726
<b>District 6</b>							
Traditional (Prince of Wales)	1,625	513	111,984	144,569	143,589	287,707	689,987
<b>District 7</b>							
Terminal Harvest Area	3,246	49	231	4,107	400	28,521	36,554
<b>District 8</b>							
Traditional (Stikine)	2,406	424	36,680	30,860	27,010	190,800	288,180
<b>District 11</b>							
Traditional (Taku/Snettisham)	5,694	1,106	61,790	36,615	56,391	918,195	1,079,791
<b>District 13</b>							
Terminal Harvest Area	4,555	0	170	417	1,825	119,719	126,686
<b>District 15</b>							
Traditional (Lynn Canal)	438	119	114,501	35,355	81,480	541,970	773,863
Terminal Harvest Area	81	43	12,093	465	81,577	303,740	397,999
<b>Subtotals</b>							
Traditional	11,323	2,162	394,814	314,568	479,045	2,201,707	3,403,619
Terminal Harvest Areas	11,642	94	13,242	6,342	87,279	528,104	646,703
<b>Common Property Total</b>	<b>22,965</b>	<b>2,256</b>	<b>408,056</b>	<b>320,910</b>	<b>566,324</b>	<b>2,729,811</b>	<b>4,050,322</b>
<b>Other Total</b>							
Hatchery Cost Recovery*	0	0	0	0	0	1,346	1,346
Annette Island	627	0	7,540	30,457	113,077	120,025	271,726
Miscellaneous**	113	8	0	0	0	0	121
<b>Total</b>	<b>23,705</b>	<b>2,264</b>	<b>415,596</b>	<b>351,367</b>	<b>679,401</b>	<b>2,851,182</b>	<b>4,323,515</b>

\* Cost recovery using gillnet gear.

\*\* Confiscated fish or fish harvested in test fisheries.

Table 2.–Southeast Alaska annual Portland Canal/ Tree Point (District 1) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.

<b>Year</b>	<b>Chinook*</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
2000	1,196	94,720	19,577	424,672	218,818	758,983
2001	1,393	80,440	36,420	521,645	252,438	892,336
2002	1,127	121,116	68,724	515,395	174,794	881,156
2003	829	105,878	97,538	626,916	322,608	1,153,769
2004	2,069	142,763	50,820	409,429	327,439	932,520
2005	1,711	80,027	65,353	559,296	252,630	959,017
2006	2,271	63,368	31,271	216,779	297,660	611,349
2007	2,057	68,170	29,890	360,986	389,744	850,847
2008	4,059	34,915	97,599	275,654	319,718	731,945
2009	4,920	70,607	68,522	174,052	339,159	657,260
<b>Average</b>						
<b>2000–2009</b>	2,163	86,200	56,571	408,482	289,501	842,918

\* Does not include jacks.

Table 3.–Southeast Alaska annual Prince of Wales (District 6) traditional drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.

<b>Year</b>	<b>Chinook*</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
2000	1,220	90,076	96,207	156,619	199,836	543,958
2001	1,138	164,013	188,465	825,447	283,462	1,462,525
2002	446	56,135	226,560	82,951	112,541	478,633
2003	422	116,904	212,057	470,697	300,253	1,100,333
2004	2,735	116,259	138,631	245,237	110,574	613,436
2005	1,572	110,192	114,440	461,187	198,564	885,955
2006	1,948	91,980	69,015	149,907	268,436	581,286
2007	2,144	92,481	80,573	383,355	297,998	856,551
2008	1,619	30,533	116,074	90,217	102,156	340,599
2009	1,625	111,984	144,569	143,589	287,707	689,474
<b>Average</b>						
<b>2000–2009</b>	1,487	98,056	138,659	300,921	216,153	755,275

\* Does not include jacks.

Table 4.–Southeast Alaska annual Stikine River (District 8) traditional drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.

<b>Year</b>	<b>Chinook*</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
2000	1,671	15,833	5,651	9,497	40,337	72,989
2001	7	610	10,731	11,012	5,397	27,757
2002	25	208	21,131	4,578	2,017	27,959
2003	312	42,158	38,795	76,113	51,701	209,079
2004	7,410	103,392	26,617	20,439	37,996	195,854
2005	26,970	99,465	42,203	106,395	150,121	425,154
2006	30,033	61,298	34,430	56,810	343,637	526,208
2007	17,463	70,580	19,880	39,872	177,547	325,342
2008	14,599	35,679	34,479	18,105	81,876	184,738
2009	2,406	36,680	30,860	27,010	190,800	287,756
<b>Average</b>						
<b>2000–2009</b>	10,090	46,590	26,478	36,983	108,143	228,284

\* Does not include jacks.

Table 5.–Southeast Alaska annual Taku/Snettisham (District 11) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.

<b>Year</b>	<b>Chinook*</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
2000	1,154	185,956	7,828	58,696	669,435	923,628
2001	1,698	293,043	22,646	123,026	237,122	677,535
2008	1,850	204,103	40,464	78,624	231,936	556,977
2003	1,467	238,160	24,338	114,166	170,874	549,005
2004	2,345	283,846	45,774	154,775	131,856	618,596
2005	23,301	106,048	21,289	182,778	93,700	427,116
2006	11,261	262,528	60,145	192,001	382,988	908,923
2007	1,452	112,241	22,394	100,375	590,169	826,631
2008	2,193	116,693	37,347	90,162	774,095	1,020,492
2009	5,694	61,790	36,615	56,391	918,195	1,079,791
<b>Average</b>						
<b>2000–2009</b>	5,242	186,441	31,884	115,099	420,037	758,869

\* Does not include jacks.

Table 6.–Southeast Alaska annual Lynn Canal (District 15) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2000 to 2009.

<b>Year</b>	<b>Chinook*</b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
2000	297	109,560	35,638	21,001	759,357	925,853
2001	1,672	147,811	34,606	67,718	445,578	697,385
2002	582	82,014	77,941	88,044	665,398	913,979
2003	663	95,111	59,742	53,621	394,250	603,387
2004	805	151,245	51,960	98,341	745,450	1,047,801
2005	711	65,469	27,947	209,833	326,895	630,855
2006	344	145,579	55,133	94,700	1,094,212	1,389,968
2007	1,063	156,798	18,137	89,782	823,158	1,088,938
2008	659	46,655	46,932	26,034	1,072,135	1,192,415
2009	519	126,594	35,820	163,057	845,710	1,171,700
<b>Average</b>						
<b>2000–2009</b>	732	112,684	44,386	91,213	717,214	966,228

\* Does not include jacks.

Table 7.–Performance of the Tree Point drift gillnet fishery sockeye salmon harvest under the 1999 agreement.

<b>Year</b>	<b>Nass River Total Return</b>	<b>Nass River Escapement</b>	<b>Allowable Nass River AAH</b>	<b>Allowable Alaska Harvest (13.8%)</b>	<b>Actual Nass River Alaska Harvest</b>	<b>Cumulative: +overage / (-underage)</b>
1999	842,806	200,000	642,806	88,707	129,794	41,087
2000	625,983	200,000	425,983	58,786	46,305	28,606
2001	580,616	167,258	413,358	57,043	55,096	26,659
2002	1,403,976	200,000	1,203,976	166,149	90,553	-48,937
2003	1,177,472	200,000	997,472	131,891	72,942	-110,886
2004	986,098	200,000	786,098	108,482	110,340	-109,028
2005	666,880	200,000	466,880	64,429	55,319	-118,138
2006	775,110	200,000	575,110	79,365	47,948	-149,555
2007	602,208	164,745	437,463	60,370	46,369	-163,556
2008	352,824	200,000	152,824	21,090	23,879	-160,767
2009 <sup>a</sup>	460,000	200,000	260,000	35,880	48,900	-147,747
2010 <sup>b</sup>	865,000	200,000	665,000	91,770		

<sup>a</sup> Preliminary Information

<sup>b</sup> DFO (Department of Fisheries and Oceans) forecast

Table 8.–Biological and sustainable escapement goals for Lynn Canal salmon stocks by species and location.

<b>Species</b>	<b>Stock</b>	<b>Escapement Goal Type</b>	<b>Escapement Goal Range</b>	<b>Escapement Method</b>
Sockeye <sup>a</sup>	Chilkoot Lake Total	Sustainable	38,000 to 86,000	Weir Count
Sockeye <sup>a</sup>	Chilkat Lake Total	Biological	70,000 to 150,000	DIDSON Count
Coho <sup>b</sup>	Berners River	Biological	4,000 to 9,200	Peak Foot Count
Coho <sup>c</sup>	Chilkat River Combined	Biological	30,000 to 70,000	Sum of Peak Foot Index Counts
Chinook <sup>d</sup>	Chilkat River Combined	Biological	1,750 to 3,500	Mark-Recapture Estimate
Fall Chum <sup>e</sup>	Chilkat River Total	Sustainable	75,000 to 170,000	Fish wheel index

<sup>a</sup> Eggers et al. 2009

<sup>b</sup> Shaul and Crabtree 2005

<sup>c</sup> Ericksen and Fleischman 2006

<sup>d</sup> Ericksen and McPherson 2004

<sup>e</sup> Eggers and Heintz 2008

## ABSTRACT

This management plan provides an overview of the expected salmon run sizes, new regulations, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2010. Drift gillnet fisheries are planned at Tree Point and Portland Canal (District 1), Prince of Wales and Stikine (Districts 6 and 8), Taku River/Snettisham (District 11), Lynn Canal (District 15), and in the following terminal hatchery areas: Neets Bay (District 1), Nakat Inlet (District 1), Anita Bay (District 7), Speel Arm (District 11), Deep Inlet (District 13), and Boat Harbor (District 15).

Key words: Southeast Alaska, drift gillnet, management plan, Pacific salmon, *Oncorhynchus*, outlook, forecast, terminal harvest area, hatchery, 2010.

## INTRODUCTION

This management plan provides an overview of the expected salmon run sizes, new regulations, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2010.

For the recent 10-year period 1999 to 2008, an average of 479 Southeast Alaska drift gillnet limited entry permits were issued annually, of which an average of 82% were actively fished each year. In 2009, 474 permits were issued, of which 408 (86%) were actively fished. A historic low of 348 permits were fished in 2004. Drift gillnet landings have averaged approximately 4.0 million salmon annually over the recent 10 years from 1999 to 2008, and 2.8 million salmon since statehood from 1962 to 2008. Of the total commercial salmon harvest in Southeast Alaska, the most recent 10-year average drift gillnet fishery harvests have included 39% of the sockeye, 19% of the chum, 11% of the coho, 2% of the pink, and 7% of the Chinook salmon (Tingley and Davidson. 2010).

Five traditional drift gillnet fishing areas in Southeast Alaska are shown in Figure 1: Tree Point and Portland Canal (District 1); Prince of Wales (District 6); Stikine (District 8); Taku-Snettisham (District 11); and Lynn Canal (District 15). In addition, drift gillnet fisheries occur in several Terminal Harvest Areas (THAs) adjacent to hatchery facilities and at remote release sites throughout the region. Each of these gillnet fisheries are discussed separately in this management plan. A summary of the 2009 season drift gillnet harvest for each species by fishery area and type is presented in Table 1. The most recent 10-year historical harvests and average harvests are presented in Table 2 for Tree Point, Table 3 for Prince of Wales, Table 4 for Stikine River, Table 5 for Taku River, and Table 6 for Lynn Canal.

The drift gillnet fishery primarily targets Chinook salmon during the spring season; sockeye, pink, and chum salmon during the summer season; and coho and chum salmon during the fall season. The first commercial fisheries directed at harvesting Stikine and Taku River Chinook salmon since the 1970s took place beginning in 2005. Returns were adequate to allow directed Chinook fisheries in Taku Inlet in 2005, 2006, and 2009. The 2010 preseason forecast for the Taku Chinook return does allow for a directed fishery, but due to the limited allowed catch associated with the forecast, fishing will not take place until inseason information is available. District 8 had 4 consecutive directed Stikine Chinook fisheries from 2005 through 2008. Similar to 2009, the preseason forecast for 2010 indicates a weak return and unless inseason estimations of run strength, usually produced towards the end of May, show a harvestable surplus of Chinook salmon then a directed fishery will not occur. Chinook salmon fisheries also occur in terminal hatchery areas in the spring.

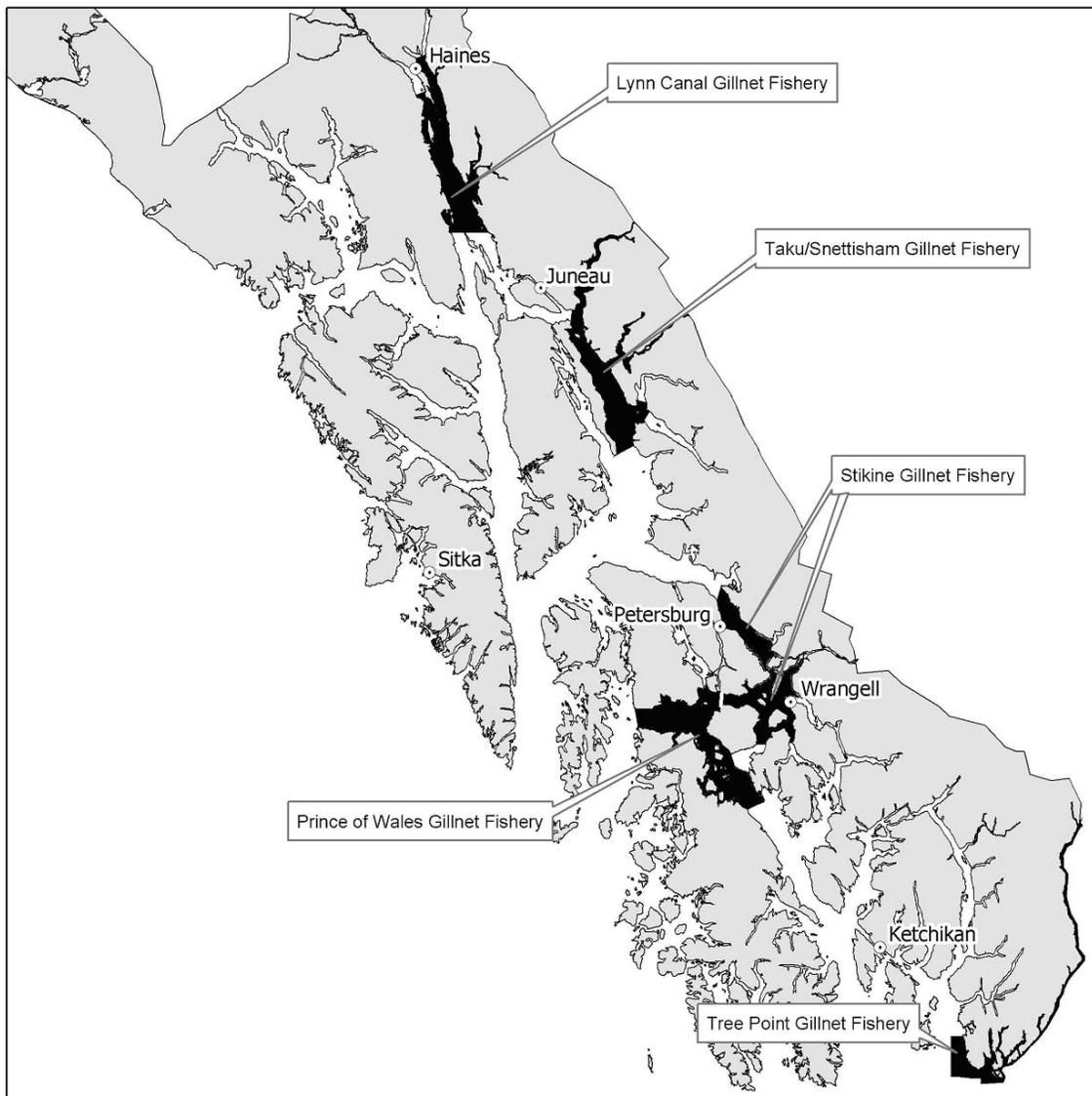


Figure 1.—Traditional Drift Gillnet Fishing Areas in Southeast Alaska.