

**2016 Southeast Alaska Drift Gillnet Fishery  
Management Plan**

by

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April 2016

Alaska Department of Fish and Game

Division of Commercial Fisheries



## Symbols and Abbreviations

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<b>Weights and measures (metric)</b>		<b>General</b>		<b>Mathematics, statistics</b>	
centimeter	cm	Alaska Administrative Code	AAC	<i>all standard mathematical signs, symbols and abbreviations</i>	
deciliter	dL	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	alternate hypothesis	$H_A$
gram	g	all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.	base of natural logarithm	$e$
hectare	ha	at	@	catch per unit effort	CPUE
kilogram	kg	compass directions:		coefficient of variation	CV
kilometer	km	east	E	common test statistics	(F, t, $\chi^2$ , etc.)
liter	L	north	N	confidence interval	CI
meter	m	south	S	correlation coefficient	
milliliter	mL	west	W	(multiple)	R
millimeter	mm	copyright	©	correlation coefficient (simple)	r
		corporate suffixes:		covariance	cov
<b>Weights and measures (English)</b>		Company	Co.	degree (angular)	$^\circ$
cubic feet per second	ft <sup>3</sup> /s	Corporation	Corp.	degrees of freedom	df
foot	ft	Incorporated	Inc.	expected value	$E$
gallon	gal	Limited	Ltd.	greater than	>
inch	in	District of Columbia	D.C.	greater than or equal to	≥
mile	mi	et alii (and others)	et al.	harvest per unit effort	HPUE
nautical mile	nmi	et cetera (and so forth)	etc.	less than	<
ounce	oz	exempli gratia	e.g.	less than or equal to	≤
pound	lb	(for example)		logarithm (natural)	ln
quart	qt	Federal Information Code	FIC	logarithm (base 10)	log
yard	yd	id est (that is)	i.e.	logarithm (specify base)	log <sub>2</sub> , etc.
		latitude or longitude	lat or long	minute (angular)	'
<b>Time and temperature</b>		monetary symbols (U.S.)	\$, ¢	not significant	NS
day	d	months (tables and figures): first three letters	Jan, ..., Dec	null hypothesis	$H_0$
degrees Celsius	°C	registered trademark	®	percent	%
degrees Fahrenheit	°F	trademark	™	probability	P
degrees kelvin	K	United States (adjective)	U.S.	probability of a type I error (rejection of the null hypothesis when true)	$\alpha$
hour	h	United States of America (noun)	USA	probability of a type II error (acceptance of the null hypothesis when false)	$\beta$
minute	min	U.S.C.	United States Code	second (angular)	"
second	s	U.S. state	use two-letter abbreviations (e.g., AK, WA)	standard deviation	SD
<b>Physics and chemistry</b>				standard error	SE
all atomic symbols				variance	
alternating current	AC			population sample	Var
ampere	A			sample	var
calorie	cal				
direct current	DC				
hertz	Hz				
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

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**2016 SOUTHEAST ALASKA DRIFT GILLNET FISHERY  
MANAGEMENT PLAN**

by

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## ABSTRACT

This management plan provides an overview of the expected salmon run sizes, regulations, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2016. Drift gillnet fisheries are planned at Tree Point and Portland Canal (District 1), Prince of Wales Island and Stikine River (Districts 6 and 8), Taku River/Port 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, 2016.

## INTRODUCTION

This management plan provides an overview of the expected salmon run sizes, regulations, management issues, and harvest strategies for the Southeast Alaska drift gillnet fisheries in 2016.

For the recent 10-year period 2005 to 2014, an average of 475 Southeast Alaska drift gillnet limited entry permits were issued annually, of which an average of 85% were actively fished each year (Conrad and Gray 2016). In 2015, 473 permits were issued, of which 422 (89%) were actively fished. A historical low of 348 permits were fished in 2004. Drift gillnet harvests have averaged approximately 4.6 million salmon annually over the recent 10 years from 2005 to 2014, and 3.0 million salmon since statehood from 1960 to 2014. In the last ten years, the species composition of the drift gillnet harvest has been 58% chum, 24% pink, 10% sockeye, 7% coho, and <1% king salmon. Of the total commercial salmon harvest in Southeast Alaska, the most recent 10-year average drift gillnet fishery harvests have included 43% of the sockeye, 27% of the chum, 12% of the coho, 10% of the king, and 3% of the pink salmon.

The 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 2015 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/Snettisham, and Table 6 for Lynn Canal.

The drift gillnet fishery primarily targets king salmon during the spring season; sockeye, pink, and chum salmon during the summer season; and coho and chum salmon during the fall season. Directed commercial fisheries harvesting Stikine and Taku Rivers king salmon began in 2005 after ceasing in the 1970s. District 8 was opened to directed Stikine River king salmon fisheries from 2005 through 2008, and limited fisheries in 2012. The 2016 Stikine River king salmon preseason forecast is large enough to allow for limited directed commercial fisheries in District 8 beginning the first week of May. In District 11, directed fisheries on Taku River king salmon occurred in 2005, 2006, 2009, and 2012. In 2012, conservative 12-hour openings were allowed in the first two weeks of the season based on the preseason forecast, however, subsequent inseason estimates of run size were too small to provide any further directed fishing opportunity. Similar to the past three seasons, the 2016 Taku River king salmon preseason forecast is not large enough to allow directed fisheries.

## **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 rivers king and sockeye salmon. 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.

The 2016 Stikine River king salmon preseason forecast is for a terminal run size of 33,900 large fish (large king salmon are greater than 659 mm MEF). The forecast is an adjusted forecast from the Stikine River Chinook salmon forecast model produced forecast of 47,000 large king salmon. Since the model has consistently overestimated the run size in recent years, the preseason forecast was reduced by using the recent five-year percent error of 39%. Additional considerations taken into account for reducing the model's forecast is the poor precision for estimating the age-4 king salmon and the general poor performance of many king salmon stocks throughout Alaska and northern B.C. in recent years. A forecast of 33,900 large Stikine River king salmon provides a U.S. Allowable Catch (AC) of 1,100 fish. Details on the management strategy will be explained in the Prince of Wales and Stikine Fisheries section of this plan.

The 2016 preseason terminal run forecast for Taku River large king salmon is 29,200 fish. As with the Stikine River, consistent overestimation of Taku River large king salmon run size in recent years has been adjusted by reducing the model produced forecast by the recent five-year average percent error in the forecast versus the actual terminal run. The 2016 Taku River king salmon model produced forecast of 32,600 large fish was revised by accounting for a 12% average error. The adjusted preseason forecast of 29,200 large king salmon does not allow for directed fisheries in either the U.S. or Canada on Taku River king salmon. Inseason abundance estimates anticipated to be available near the end of May will determine any directed king salmon fishing possibilities in 2016.

For 2016, the preliminary terminal run forecast for Stikine River sockeye salmon is 227,000 fish, which constitutes an above average run. For comparison, the recent 10-year average (2006–2015) total Stikine sockeye run size is approximately 172,000 fish. Based on a Canadian stock recruitment analysis, wild sockeye salmon returns to the Taku River are expected to total 200,000 fish which is above the recent 10-year average wild sockeye salmon terminal run size of approximately 172,000 fish. Enhanced sockeye salmon returns to the Taku River are expected to total 10,000 fish, above the recent 10-year average of 8,500 fish. Chilkoot Lake sockeye salmon returns are expected to be above average, and returns to Chilkat Lake are expected to be near average. Douglas Island Pink and Chum, Inc. (DIPAC) has forecast 254,000 enhanced sockeye salmon returning to Snettisham Hatchery in 2016.

The projected regionwide forecast of hatchery chum salmon returns for 2015 is expected to be 9.6 million fish. This includes 2.5 million fish to four DIPAC locations, 3.2 million fish to three Northern Southeast Regional Aquaculture Association (NSRAA) locations, 3.1 million fish to four Southern Southeast Regional Aquaculture Association (SSRAA) locations, 0.5 million fish to Armstrong Keta Inc., 0.2 million fish to the Sitka Sound Science Center. A portion of these

returns above broodstock needs and cost recovery harvests may be harvested 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 regional drift gillnet fisheries have averaged 2.7 million fish per year over the recent 10-year period from 2005 to 2014, and during this period, chum salmon have accounted for 58% of salmon harvested.

Returns of wild coho salmon are not forecasted but are expected to be consistent with the recent year averages. Alaska hatchery coho salmon contributions to drift gillnet fisheries in 2015 were estimated by hatchery operators at 100,000 fish (Stopha 2016), around 40% of total drift gillnet coho salmon harvests. The largest portion of this harvest was from Neck Lake returns with substantial harvest from Neets Bay returns.

The Southeast Alaska pink salmon harvest forecast for 2016 is 34 million fish, with a range of 13 to 55 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 recently averaged 3% of regional pink salmon harvests.

## **MANAGEMENT APPROACH**

A flexible management approach is required because of the uncertainty of salmon run size to the drift gillnet fishing areas. This management plan presents only a general outlook as to 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 2016 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 objectives;
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 king salmon harvest ceiling of 2.9% of the all-gear quota, exclusive of Alaska hatchery-produced fish; the 2016 pre-season Abundance Index is not yet available.
5. Minimize, to the extent possible, the harvest 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 THAs in accordance with provisions in THA management plans adopted by the Alaska Board of Fisheries (BOF);

Achievement of these management objectives will be accomplished by inseason adjustments of 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 [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 as an indication of salmon escapements throughout the fishing area.

Past experience has demonstrated that management of salmon fisheries based only on fishery performance or CPUE, 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 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 be based on 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. When they occur, directed king salmon drift gillnet fisheries in District 8 open on Mondays at 8:00 a.m. and District 11 fisheries open on Mondays at 12:01 p.m., except following the Memorial Day Holiday when these fisheries open on Tuesday. Also to reduce gear conflicts, commercial fishing in District 8 will begin on Mondays for the first two weeks of sockeye management. Districts 6 and 8 are managed together due to their proximity. As a result, the District 6 weekly start day will be Monday for the first two 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, and Neets Bay will be in accordance with rotational harvest management plans for drift gillnet, seine, and troll fisheries adopted by the BOF.

### **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 2016 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.

### **USE OF DRONES PROHIBITED**

A new regulation (5 AAC 33.398) adopted by the BOF in 2015, prohibits the use of unmanned aircraft to locate salmon for the commercial taking of salmon or to direct commercial salmon fishing operations during an open commercial salmon fishing period in the Southern Alaska Area.

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

The Pacific Salmon Treaty (PST) will influence management of Districts 1, 6, 8, and 11 drift gillnet fisheries [5 AAC 33.361]. The management provisions specified by the PST will be considered separately under the specific management plan for each 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.

### **KING SALMON**

The need for management measures to comply with the drift gillnet harvest quota for king salmon will depend on inseason evaluation of king salmon catch rates relative to the 2.9% drift gillnet allocation of the Treaty fish harvest ceiling [5 AAC 29.060]. For 2016, the all-gear Treaty king salmon allocation is 355,600 Treaty king salmon based on the preseason Abundance Index of 2.06. The 2016 drift gillnet Treaty king salmon allocation is 10,312 fish. If the need arises, nighttime fishing closures may be implemented in certain areas to reduce the incidental catch of immature, “feeder” king salmon. Some management measures to limit the drift gillnet harvest of PST king salmon have been necessary in recent years, including time and area restrictions in the early weeks of the sockeye fishery in District 11.

The District 15 drift gillnet fishery will be managed in accordance with provisions in the *Lynn Canal and Chilkat River King Salmon Fishery Management Plan* [5 AAC 33.384]. Due to a very low forecast of Chilkat Lake king salmon in 2016, Chilkat Inlet will be closed to all fisheries through the first two weeks of the summer season.

The District 8 drift gillnet fishery will target king salmon based on preseason and inseason estimates. A drift gillnet fishery may target king salmon in District 11 if inseason estimates of abundance increase from the preseason forecast. Only historic base level catches will be counted towards the PST fish ceiling [5 AAC 29.060 (b)(2)] when directed fisheries occur.

## **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.

### **2016 OUTLOOK**

#### **Chum Salmon**

Runs of summer chum salmon in southern Southeast Alaska were well above goal in 2015, with good escapements to many of the index streams in the subregion. The index count of 115,000 chum salmon in the Southern Southeast Subregion was above the lower-bound sustainable escapement goal (SEG) of 62,000 index fish. The estimated escapement of 28,600 summer chum salmon at Fish Creek near Hyder was above the long-term average of 24,600 fish (1971–2014) and was the largest escapement since 2006. In 2012, ADF&G began conducting helicopter surveys in key chum salmon index streams in the Ketchikan area. These surveys will again be conducted in 2016 and will focus on the peak of the summer chum run timing which occurs in late July to mid-August. This survey method greatly enhances the accuracy of chum salmon

counts at a time when large numbers of pink salmon make it difficult to enumerate other species from a fixed wing aircraft.

### **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 drift gillnet portion of the PST and the agreement still calls for the following:

Manage the Alaska 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;
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 Alaska Districts 1, 2, 3, 4, and 6 net fisheries, Canadian Areas 1, 3, 4, and 5 net fisheries, and Canadian Nass inriver fisheries.

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 2016, the bilateral Northern Panel and the Northern Boundary Technical Committee met and summarized the final run reconstruction of the Nass River for 2013 and 2014. Preliminary reports indicate that the total sockeye salmon return to the Nass River in 2015 was 868,742 fish. That allowed for a harvest of approximately 92,286 Nass River sockeye salmon at Tree Point in 2015. Total sockeye harvest at Tree Point for 2015 was 28,155 sockeye salmon and of these, approximately 19,709 were Nass River sockeye. The performance of the Tree Point drift gillnet fishery under the 1999 agreement is shown in Table 7.

Canada Department of Fisheries and Oceans (DFO) has a preseason expectation for 2016 returns of approximately 679,000 Nass River sockeye salmon. If the forecast is accurate, then the AAH for Tree Point will be approximately 66,102 Nass River sockeye salmon.

## **Chum and Coho Enhancement**

Hatchery returns of summer chum, fall chum, and coho salmon to SSRAA's enhancement projects are expected to again contribute substantially to the Tree Point drift gillnet fishery in 2016. Information concerning SSRAA forecast returns is included under the THA Fisheries section of this plan.

## **Pink Salmon**

Pink salmon returns are expected to be strong to southern Southeast Alaska in 2016. If the actual returns come back as forecasted, the Tree Point drift gillnet fishery may receive two-, four-, and five-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 (Tree Point) 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 17, 2016) 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 two 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 three 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 specific to the 2016 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 at 12:01 p.m., Sunday, June 19, 2016, in Section 1-B, the initial opening will be for four days. The length of subsequent fishing periods up to the start of the PSMP on July 17 will be based on the strength of wild stock sockeye and chum salmon returns to Alaska and Canada 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 the 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 adequate escapement of these stocks. As a result, no fishing should be expected in Section 1-A for Portland Canal chum salmon.

The Tree Point drift gillnet fishery will be managed according to the District 1 PSMP starting July 17, 2016. The overall pink salmon return to southern Southeast Alaska is expected to be strong in 2016. Depending on the run strength and timing, beginning in mid-July through the end of August, Tree Point drift gillnetters can anticipate fishing periods of two, four, and five days.

Fall management at Tree Point starts after the end of the pink salmon season and varies depending on the strength of the pink salmon run. 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 has reached 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 18. Due to the uncertainties of the escapement levels of the stocks being harvested, the documented high exploitation rate of Hugh Smith Lake coho salmon in some years and the 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 18 if fishery performance data indicates above average returns of wild chum and coho salmon. During recent years, approximately 50% of the fall coho salmon and as much as 90% of the fall chum salmon have been hatchery fish. In addition to harvest at Tree Point, Nakat Inlet fish can be harvested in the Nakat Inlet THA, which remains open by regulation to commercial fishing through November 10, 2016.

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

ADF&G will continue to monitor Hugh Smith Lake sockeye salmon and if escapement levels are below what is needed to reach the lower bound of the escapement goal range of 8,000 fish, the department may consider the following actions:

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

## **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, 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 proximity, management of these fisheries is interrelated, resulting in stocks being subject to harvest in 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 runs to Crystal Lake and Anita Bay will be discussed in the THA fisheries portion of this management plan.



## **2016 OUTLOOK**

### **King Salmon**

The preseason forecast of large Stikine River king salmon in 2016 is 33,900 fish. This forecast is above the midpoint of the escapement goal range of 21,000 large king salmon on which the preseason harvest allocations are based. The resulting U.S. AC is 1,100 large king salmon. A directed Stikine River king salmon fishery will occur in District 8 in 2016. Additionally, 16,500 enhanced king salmon returning to Anita Bay THA are expected to contribute to the District 8 gillnet harvest.

### **Sockeye Salmon**

The 2016 Stikine River sockeye salmon run is expected to be above the previous 10-year average of 172,000 fish. The preliminary forecast of Stikine River sockeye salmon is 227,000 fish; which includes 133,000 Tahltan (59%), 38,000 enhanced Tuya (17%), and 56,000 wild mainstem (25%) sockeye salmon. Due to the near identical run timing of the Tahltan Lake and Tuya Lake stocks, any open fishing periods in District 8, and to a lesser extent in District 6, will be determined by the inseason abundance estimate of the Tahltan Lake run. Typically, the Tahltan Lake and Tuya Lake sockeye salmon run timing peaks in SW 27 (June 26–July 2) through the District 6 and 8 fisheries. During an average or above average Tahltan Lake run, substantial numbers of sockeye could be present as early as SW 25 (June 12–18) and as late as SW 31 (July 24–30).

Local area sockeye salmon stock returns are expected to be average to above average based on parent year escapements to local systems. The primary parent-year escapement of sockeye salmon to McDonald Lake was within the SEG range in 2012. The 2013 and 2014 runs fell below the escapement goal range; the 2015 run improved and was within goal range.

### **Pink Salmon**

Pink salmon typically begin entering District 6 in substantial numbers near the end of July. The 2016 Southeast Alaska pink salmon harvest is forecast to be 34 million fish, which is below the recent 10-year average of 38 million fish. The 2016 pink salmon return to District 6 is expected to be good, as parent-year escapements to all but one of the four stock groups were within or above target ranges. The pink salmon return to District 8 is expected to be poor based on parent-year escapement.

### **Chum Salmon**

In Districts 6 and 8, there is no directed management of chum salmon, although they are caught incidentally in fisheries targeting sockeye, pink, and coho salmon. Chum salmon returning to Anita Bay will result in increased harvests in Districts 6 and 8. Anita Bay is expecting a total run of 380,000 summer chum which is approximately 17,000 less than the 2015 run. Chum salmon returning to Anita Bay typically peak from SW 28 through 31 (July 3–Aug 30). Summer chum salmon production from Ketchikan area hatcheries is expected to be strong. Chum salmon returning to the Ketchikan area hatchery facilities migrate through District 6 and typically contribute to the total District 6 chum harvest.

## **Coho Salmon**

Coho salmon runs for 2016 are expected to be near average. Forecasted returns to Neck Lake and Burnett Inlet are 62,000 and 22,000 coho salmon in 2016. The coho salmon return to Anita Bay is forecasted to be 15,000 fish, lower than the 17,000 fish return in 2015. The 2016 total forecasted Ketchikan area enhanced coho salmon run is 160,000 fish. Wild coho salmon returns for 2016 are expected to be near the long-term average. Starting in SW 35 (August 21–27) fishing periods will be determined weekly based on wild coho salmon abundance.

## **MANAGEMENT GOALS**

Management goals for the District 6 and District 8 drift gillnet fisheries for the 2016 season are as follows:

1. Achieve the Stikine River king salmon escapement goal while harvesting the Alaska share of the king salmon;
2. Achieve the Stikine River sockeye salmon escapement goals while harvesting the Alaska share of the Stikine River sockeye salmon;
3. Achieve sustainable spawning escapements of sockeye salmon in local Alaska systems;
4. Achieve pink salmon spawning escapement objectives in Districts 6 and 8;
5. Manage the District 6 and District 8 drift gillnet fisheries consistent with the provisions of the PST (5 AAC 33.361).
6. Manage the directed Stikine River king salmon drift gillnet fishery in accordance to the District 8 King Salmon Management Plan (5 AAC 33.368) and associated closed water regulations (5 AAC 33.350 (i)(3-9)).

## **MANAGEMENT PLAN**

### **King Salmon**

Directed king salmon commercial fishing will start in District 8 at 8:00 a.m. on Monday, May 2, for a 24-hour open period. Openings will start at 8:00 a.m. on Mondays until the second Monday in June, except that on the week of Memorial Day (May 30), the opening will occur on Tuesday. Beginning the second Monday in June through the third Monday in June, openings will begin at 12:00 noon. After the third Monday in June, openings will begin on Sundays starting at 12:00 noon. Fishing time may be lengthened and open area may be expanded if effort is lower than expected and/or inseason estimates of run size yields a larger U.S. AC; however, fishing time before the second Monday in June will be limited to a maximum of four days per week and may not occur on a weekend. If inseason estimates of Stikine River king salmon run size yield a substantially reduced or no U.S. AC, the District 8 drift gillnet fishery will be closed. Additionally, management actions may need to be taken to ensure adequate escapement to Andrews Creek.

From the first Monday in May through the second Saturday in June, nets are restricted to seven inches stretched mesh, 300 fathoms in length, and 60 meshes in depth to minimize the incidental harvest of other salmon species.

Area closures in District 8 during directed king salmon fishing will be implemented by regulation and by emergency order. There are four areas that would be closed for the duration of

a directed king fishery by regulation: Babbler Point, Wrangell Harbor, Bear Creek, and Point Frederick to Beacon Point. If the gillnet fishery is open for two or more days, additional areas would close: Woodpecker Cove and “The Nose” on Woronkofski Island. These closures are designed to provide sport fishermen with exclusive fishing areas without interference from commercial drift gillnet gear and/or to provide increased protection for steelhead returning to Petersburg Creek and Bear Creek on Mitkof Island. The primary additional area restriction that will likely be utilized for the duration of a directed king salmon opening is the “old Stikine closure line” which prevents fishing on or near the Stikine River delta. Closed waters will be identified by news release prior to each potential opening.

In District 8, for the week before Memorial Day, the drift gillnet fishery may be limited to a maximum of two days to prevent conflicts with the king salmon derbies in Petersburg and Wrangell. There will be no openings on weekends or holidays to decrease any conflict with other user groups.

Drift gillnet fishermen are asked to notify management biologists, who will be monitoring the fishery, of any incidence of steelhead and any retained steelhead must be recorded on fish tickets.

King salmon less than 28 inches long that are harvested in the commercial drift gillnet fisheries may be retained and sold. King salmon less than 28 inches long, and those of Alaska hatchery origin, will not be counted against the Alaska all gear king salmon allocation. ADF&G will sample the harvest to identify hatchery origin, size composition, and age composition of the harvest.

Canada will prosecute a directed commercial king salmon fishery on the Stikine River in 2016. The preseason forecast provides Canada with an AC of 4,700 fish. The harvest sharing agreement in the PST is based on a sliding scale. During large returns of king salmon to the Stikine River, the U.S. has a larger share of the Total Allowable Catch (TAC). During smaller returns, Canada has a larger share of the TAC. Additionally, the PST allows for 1,400 Stikine River king salmon to be harvested in an assessment fishery when the inseason forecast results in a small or no Canadian AC. When Canada is prosecuting a directed king salmon fishery, the assessment fishery is typically not necessary. Since 2005, the U.S. has harvested 80,000 and Canada has harvested 79,100 large Stikine River king salmon.

## **Sockeye Salmon**

The directed commercial sockeye salmon fishing season will open on the second Monday in June (June 13). Delaying the start of the sockeye salmon fishing season by one week has been used as a conservation tool by managers in recent years. This delay will not be necessary in 2016 primarily due to an above average forecasted run of Stikine River sockeye salmon. This initial opening is expected to be 48 hours in Districts 6 and 8, but may be up to 72 hours based on expected low effort. Due to an expected above average return of Tahltan and mainstem sockeye salmon in conjunction with anticipated low effort, fishing time may be more liberal than in recent years. During the first few weeks of the sockeye salmon fishery, any extended fishing time or midweek openings will be based on the preseason forecasts, inseason fishery harvest estimates, and stock proportion data. Subsequent openings, fishery extensions, or midweek openings will be based primarily on inseason estimates and stock proportion data for the remainder of the sockeye salmon season. If the Tahltan component of the run appears to be weaker than forecasted, a more conservative management approach may limit fishing time in

District 8 and fishery extensions in District 6 would likely not occur. In the event that inseason estimates of mainstem sockeye salmon fall below expectations, more conservative management actions may be needed during SW 29–32. If management actions are taken to conserve mainstem sockeye salmon, they will occur in District 8 and midweek fishing extensions would likely not occur. Extended fishing time in District 6 will be based primarily on the abundance of sockeye salmon from local island stocks. Starting June 26, Districts 6 and 8 will revert to Sunday openings for the remainder of the season.

Sockeye salmon fishing in both districts will be managed in accordance with the TBR Annex of the PST. This Annex allows District 6 to be managed primarily for local Alaska sockeye salmon stocks. Management of District 8 is based on the harvest of sockeye salmon of Stikine River origin, as allowed by the sharing provisions of the TBR Annex and conservation needs.

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

The numbers of Stikine River sockeye salmon generally begin to decrease in mid-July and other stocks, including McDonald Lake sockeye salmon, begin to pass through the fishery. McDonald Lake sockeye salmon escapements were below the escapement goal range in five of seven years from 2002 through 2008. Given this history, ADF&G recommended McDonald Lake sockeye salmon as a stock of concern as defined by the Sustainable Salmon Fishery Policy. An Action Plan for this stock was approved by the BOF in 2009. This plan limited fishing time to two days per week when McDonald Lake sockeye salmon are transiting through District 6 during SWs 29 through 31. The McDonald Lake sockeye salmon stock was removed from stock of concern status by the BOF in 2012 due to improved escapements. However, escapement goals have not been met for two of the past five years. Consequently, conservative measures may be taken from SW 29 through SW 31 in 2016.

Announcements of any additional fishing time by extensions or mid-week openings will be made from the fishing grounds by 10:00 a.m. on the final day of the scheduled opening. Areas opened for any additional fishing time may not be the same as the general weekly opening.

### **Pink Salmon**

Pink salmon normally begin entering District 6 in substantial numbers in late July. Early portions 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 management will be based on observed escapements to local area streams. If escapements are not evenly dispersed throughout the district, area and/or time restrictions may occur. Southeast Alaska pink salmon harvest is forecasted to be below the recent 10-year average. Additionally, parent-year escapements to District 8 and Section 6-A did not meet

management targets. The low expected return may result in below average days open during the pink salmon management period.

### **Coho Salmon**

Management for coho salmon typically begins in late August or early September. Management of the District 6 fishery will be based on wild coho stocks. Crystal Lake Hatchery, Burnett Inlet Hatchery, facilities in the Ketchikan area, Anita Bay remote release site, and Neck Lake remote release site at Whale Pass, all contribute coho salmon to 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 shoreline of Etolin Island in Section 6-D. Specifically, this area encompasses those waters of Section 6-D west of a line from Point Nesbitt to 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. The periods when fishing may be allowed are: from the second Monday in June (June 13) through the first Saturday in August (August 6), and from the first Sunday in September (September 4) 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.

There may be additional opportunity for fisherman to utilize the Screen Island area for pink salmon in August. Regulation 5 AAC 33.359 was adopted by the BOF in March 2015 and allows drift gillnet fishing in the Screen Island portion of Section 6-D during regular drift gillnet openings after the first Saturday in August and before the first Sunday in September if this area has been, or will be, open to purse seining. During these occasions, the gillnet fishery will open after purse seine closes, and will close at 11:59 p.m. the day before the next scheduled purse seine opening, or when the regular gillnet opening closes, whichever comes first. Drift gillnet fishermen wanting to fish in the Screen Island portion of Section 6-D during the month of August will need to closely monitor purse seine and subsequent drift gillnet news releases during this period as fishing opportunities may be scheduled with little advanced notice.

## **TAKU/SNETTISHAM FISHERY**

### **INTRODUCTION**

The Taku/Snettisham (District 11) drift gillnet fishing 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 historically targeted sockeye salmon from late June to mid-August and fall chum and coho salmon from mid-August to mid-October. In recent decades, the fishery has harvested substantial numbers of hatchery summer chum and sockeye salmon. Directed king salmon fisheries may occur in District 11 when Taku River king salmon run strength is sufficient.

## **2016 OUTLOOK**

### **King Salmon**

The 2016 preseason forecast of 29,200 Taku River large king salmon does not provide AC for either the U.S. or Canadian directed fisheries. DIPAC forecasts returns totaling approximately 4,200 hatchery king salmon from their smolt release sites at Gastineau Channel, Auke Bay, Fish Creek, and Lena Cove.

### **Sockeye Salmon**

The terminal run of wild Taku River sockeye salmon in 2016 is expected to be 200,000 fish, above the recent 10-year average of 172,000 fish. This forecast is based on stock recruitment analysis and recent trends in ocean survivals. The 2011 main parent year escapement of 113,000 wild fish and the 2012 parent year escapement of 120,000 wild fish were both above the upper bound of the SEG range of 71,000-80,000 fish. Adult returns to date from the joint U.S./Canada Taku River sockeye salmon enhancement project at Tatsamenie Lake have been low, and numbers of enhanced sockeye salmon returning to this system are not expected to contribute significantly to harvests in 2016.

The Speel Lake escapement goal was revised in 2014 to a SEG range of 4,000–9,000 fish. Both the 2011 and 2012 parent year sockeye salmon escapements through the Speel Lake weir were within the revised range, at 4,777 and 5,681 fish, respectively. Beginning in 2005, DIPAC replaced the Crescent Lake weir with side scan sonar to monitor salmon escapements into the lake. Although all species of salmon enter Crescent Lake, the majority are thought to be sockeye salmon. The 2005 to 2010 average sonar count was approximately 6,400 fish. Due to technical issues, the sonar monitoring program has been discontinued and Crescent Lake salmon escapements will be monitored by aerial surveys in 2016.

The 2016 DIPAC forecast for enhanced sockeye salmon returning to Snettisham Hatchery is 254,000 fish, significantly larger than last year's total return of approximately 140,000 fish.

### **Chum Salmon**

In 2016, approximately 746,000 and 147,000 summer chum salmon are forecast to return from DIPAC hatchery releases in Gastineau Channel and Limestone Inlet, respectively. The total estimated DIPAC chum salmon contribution to the Section 11-B drift gillnet fishery is forecast to be 459,000 fish. Returns of fall chum salmon to the Taku River are expected to be similar to recent seasons.

### **Pink Salmon**

Returns of pink salmon to District 11 systems are expected to be below average in 2016. Parent year pink salmon escapements to District 11, and throughout the northern part of the region, were extremely poor in 2014. Pink salmon counted through the Taku River Canyon Island fish wheels in 2014 were 18% of the even-year average indicating well below average escapement to the Taku River.

### **Coho Salmon**

The 2016 run of Taku River coho salmon is expected to be above average. The total run forecast, based on the relationship between smolt tagging CPUE and historical run size, is 202,000 adult fish, equating to an inriver run of 127,000 coho salmon. This compares to a recent 10-year

average inriver run of 103,000 fish. DIPAC projects a 2016 return of approximately 81,000 hatchery coho salmon from their smolt releases into Gastineau Channel.

## **MANAGEMENT GOALS**

Management goals for the 2016 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 king salmon to stay within the BOF Southeast drift gillnet allocation of 2.9% of the Treaty king salmon quota;
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 *District 11: Snettisham Hatchery Salmon Management Plan* (5 AAC 33.378);
6. Manage the Speel Lake sockeye salmon run to achieve an escapement to the lake between 4,000 and 9,000 spawners;
7. Manage the District 11 directed king salmon fishery to harvest large adult king salmon in accordance with the PST and the District 11 king 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 king, sockeye, and coho salmon through the 2016 fishing season are specified in the annex.

### **King Salmon**

The below-average preseason forecast requires a conservative management approach for the 2016 Taku River king salmon run. The forecast does not provide any AC for U.S. fisheries in early May, and any possible fishery opportunities will depend on inseason estimates of run size generated by the joint U.S./Canada inriver assessment project. Based on recent trends of king salmon abundance, directed fisheries are unlikely throughout the spring. Mesh size restriction and reduction in open area may be implemented during the initial weeks of the traditional sockeye salmon season if the king salmon run appears weak. The first inseason abundance estimates derived from the inriver mark-recapture data may be available in middle to late May. Should the run size estimate increase substantially, providing a directed fishery opportunity, a news release will describe the fishery.

### **Sockeye Salmon**

Section 11-B will open for directed sockeye salmon fishing on the third Sunday in June (June 19) for a three-day fishing period, unless king salmon run strength is poor and conservation measures are required. 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. 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

commercial harvest of wild sockeye salmon will be estimated after the fishing season by scale pattern and GSI analysis.

The returns of enhanced Port Snettisham sockeye salmon will be managed according to the *District 11: Snettisham Hatchery Salmon Management Plan* (5 AAC 33.378). 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. Manage enhanced Port Snettisham sockeye salmon returns in a manner that does not prevent achieving escapement goals or PST harvest sharing agreements for Taku River salmon stocks;
3. Assessment programs shall be conducted to estimate Port 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 wild Port Snettisham sockeye salmon stocks, particularly in July. The department intends to implement a six-inch minimum gillnet mesh size restriction in Section 11-B south of Circle Point in order to limit harvest rates on wild Port Snettisham sockeye salmon while allowing harvest of enhanced chum salmon returning to the Limestone Inlet 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 Port Snettisham sockeye salmon stocks through Stephens Passage.

A personal use fishery will be allowed in Sweetheart Creek to ensure enhanced sockeye salmon 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 seven days per week starting June 1.

In order to avoid conflicts with sport fisheries, the District 11 drift gillnet fishery will not be open concurrent with the 2016 Juneau Golden North Salmon Derby (August 12–14). Consequently, during SW 34, the District 11 gillnet fishery will not open until Monday, August 15.

### **Pink Salmon**

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

### **Coho and Fall Chum**

Beginning in mid-August, management of the Taku/Snettisham drift gillnet fishery will be based primarily on the run strength of returning Taku River coho, as well as fall chum salmon. In 2015, a point escapement goal of 70,000 Taku River coho salmon with a range of 50,000–90,000 fish was adopted by the TBR Panel. Similar to the past several seasons, Canada may harvest all coho salmon that pass above the border in excess of both the point escapement goal and a 5,000 fish



assessment fishery. The District 11 fishery will be managed to provide a minimum above border run of 75,000 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. In 2015, CWT recoveries indicated that 21% of the District 11 drift gillnet coho salmon harvest was of DIPAC origin. With significant DIPAC enhanced coho salmon returns forecasted in 2016, increased opportunity may be available to target these fish.

## **LYNN CANAL FISHERY**

### **INTRODUCTION**

The Lynn Canal drift gillnet fishery operates in the waters of District 15. The district is divided into three 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, pink, coho, and fall chum salmon. King salmon are taken incidentally.

Historically, this fishery targets sockeye, coho, and fall chum salmon from June through late September. In recent decades, the fishery has targeted large returns of hatchery chum salmon originating from remote hatchery release projects at Amalga Harbor and Boat Harbor.

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. Major coho salmon stocks originate from the Chilkat and Berners Bay river systems.

The Chilkoot River weir and Chilkat River fish wheel stock assessment projects will be operational beginning in the first week of June. Sockeye salmon escapement to Chilkat Lake will be assessed with a DIDSON (dual frequency identification sonar) system. This equipment has enabled department crews to monitor Chilkat Lake salmon escapement during flow reversals, weather events, and during periods of high boat traffic. Total escapement for Chilkat Lake sockeye salmon is determined by this project.

### **MANAGEMENT GOALS**

The overall management goal is to achieve desired spawning escapement levels 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. Other stocks in the general Lynn Canal area are monitored by aerial surveys, foot surveys, or mark-recapture methods. Specific management goals for the 2016 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 inseason 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 three-ocean age and older king salmon to the Chilkat River.
4. Obtain an escapement of between 75,000 and 250,000 fall chum salmon to the Chilkat River.
5. Obtain a peak foot escapement count between 4,000 and 9,200 coho salmon to Berners River.
6. 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.
7. 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.
8. Harvest all DIPAC hatchery-produced chum salmon available in the Boat Harbor Terminal Harvest Area while conserving wild stock pink and summer chum salmon migrating to streams on the western shoreline of Lynn Canal and other wild stocks originating in upper Lynn Canal.

## **2016 Outlook**

### **Sockeye Salmon**

A below average to average return of Chilkat Lake sockeye salmon is expected in 2016. Escapements during parental years were below the lower end of the escapement goal range during 2010 and 2011 (62,000 and 64,000 fish respectively). Chilkat Lake zooplankton abundance in 2012 and 2013, important lake rearing years for the 2016 adult sockeye salmon return, were above average. On average, 70% of the Chilkat Lake sockeye salmon escapements are 3-ocean age fish (33% are age-1.3, 37% are age-2.3, and >0.1% are age-3.3 fish). Approximately 27% of this run has spent two years in the marine environment, or 2-ocean age fish, (5% are age-1.2 and 22% are age-2.2). The age composition of the 2015 run of 2-ocean age fish was below the previous 10-year average and may indicate a below average return of 3-ocean age fish in 2016.

Sockeye returns for 2016 are not formal forecasts but may be characterized as general expectations based on escapement, age composition, and lake rearing conditions. With expected below average to average returns of Chilkat 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.

The 2016 Chilkat River mainstem sockeye salmon run is expected to be average in run strength. Mark-recapture estimates of the Chilkat River mainstem sockeye salmon escapements in 2011, 2012, and 2013 (the dominant parent-years), were 36,000, 48,000, and 19,000 fish, respectively. Escapement estimates were above the historical average of 33,800 fish for older brood years but well below average in 2013. The dominant age classes for this run are age-0.2 (19%), age-0.3 (45%), and age-1.3 (29%) fish. The proportion of age-0.2 fish in the 2015 escapement was below average indicating that the 2016 return of age-0.3 fish to the mainstem Chilkat River may also be

below 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 2016 are expected to be about average. The Chilkoot Lake sockeye salmon escapement count during the dominant parental brood year (2011) for the 2016 return was 66,000 fish, well within the SEG range of 38,000-86,000 fish. The composition of age-1.2 fish in the 2015 escapement (13.4%) was about average (12.7%). This information may indicate an average return of age-1.3 fish in 2016. Results from the department's Chilkoot River smolt study in the spring of 2013 indicated very large numbers of out-migrating sockeye salmon smolt that year. Zooplankton abundance during 2012, the year the majority of the sockeye fry reared in Chilkoot Lake, was about the same as the previous 5-year average. This may indicate an adequate forage supply for rearing Chilkoot Lake sockeye salmon juveniles contributing to the 2016 run.

Management decisions will be based on inseason escapement data, inseason fisheries performance, and site specific sampling results from the District 15 drift gillnet fishery.

An average run of Berners Bay sockeye salmon is expected in 2016 for similar reasons as the average Chilkat River mainstem sockeye projection. Berners Bay Rivers and Chilkat River mainstem sockeye stocks share very similar life histories and both stocks shared similar average age composition and parental year escapements for the dominant brood years for the 2016 run, with the exception of the peak count for the 2012 sockeye aerial survey. Total escapement estimates are not available for Berners Bay sockeye salmon systems as escapements are assessed via aircraft survey. Peak aerial escapement estimates to Berners Bay streams were well above average in 2011 and 2013 and below average in 2012. The 2012 and 2013 commercial harvests of Berners Bay and Chilkat River mainstem sockeye salmon were estimated at 45,000 and 23,000 fish respectively. These harvests are well above the recent 10-year average harvest of 24,000 fish in 2012 and near the average in 2013.

### **Summer Chum Salmon**

The majority of the summer chum salmon production in the district is from hatchery releases from the Amalga Harbor Special Harvest Area and the Boat Harbor Terminal Harvest Area (BHSHA) by Douglas Island Pink and Chum Inc. (DIPAC). DIPAC has been enhancing the chum salmon returns to Lynn Canal since 1987. The preseason total run forecast for enhanced chum salmon to Lynn Canal is 1.63 million fish. The expected run is well below the recent average of 2.2 million fish. Separate run estimates by release site are not possible as all chum salmon released have the same thermal mark.

Smaller numbers of wild summer 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. These streams are part of the northern southeast inside index stream group.

The northern southeast inside summer chum salmon index counts during the important brood years (2011 and 2012) for the 2016 returns were 125,000 and 177,000 fish, respectively. These index counts were above the lower-bound SEG of 119,000 in 2011 and 2012.

Based on parental-year escapement counts, the wild summer chum salmon run in 2016 may be about average in run strength.

### **Fall Chum Salmon**

The 2016 run of Chilkat River drainage fall chum salmon stock is expected to be near the recent average. Peak aerial escapement survey counts were 32,000 and 15,000 fish during 2011 and 2012, important brood years for the 2016 run. Counts were above the recent 10-year average peak aerial escapement count of 30,000 fish in 2011 but below average in 2012. The total drainage-wide estimated escapement in 2011 and 2012 based on mark-recapture index methods was 368,000 and 293,000 chum salmon, respectively. These estimates are above average for 2011 and about average for 2012. A conservative approach will be implemented in the 2016 fall season in Chilkat Inlet to ensure escapements of Chilkat River drainage fall chum salmon are within escapement targets.

The commercial harvest during the dominant parental brood years (2011 and 2012) were both close to the recent average. Generally, escapements of Klehini River and Chilkat River fall chum salmon stocks have been trending upward from historical lows during the mid to late 1990s. Fish wheel counts and aerial surveys in recent years have indicated an increasing trend in abundance for this stock. Results of a mark-recapture study conducted from 2002 to 2005 indicated that the total fish wheel catch is approximately 1.55% of the total number of fall chum salmon returning to the Chilkat River drainage and this percentage is used to estimate the total drainage-wide escapement

### **Coho Salmon**

The Chilkat River drainage coho salmon return is expected to be average during 2016. Coho salmon systems in the district include the Chilkat River, Berners River, and Chilkoot River, with the Chilkat River being the primary source of the commercial harvest in Lynn Canal. Parent-year survey counts on the Chilkat River index streams resulted in escapement estimates in 2012 and 2013 of 38,700 and 52,000 fish, respectively. This is well within the escapement goal range of 30,000–70,000 fish for the Chilkat River. The 2012 and 2013 escapements to Berners Bay of 5,500 and 5,700 fish, respectively, were within the escapement goal range of 4,000–9,200 fish. The 2012 and 2013 Chilkat River fish wheel catches of 1,100 and 1,400 coho were below the 2006–2015 average for both years.

Sport Fish Division has been conducting coho salmon smolt coded-wire tagging (CWT) studies on the Chilkat River to estimate smolt size, age structure, production of coho salmon smolts, and marine survival of adult coho salmon since 1999. This information will be used for inseason evaluation of adult coho returns to Lynn Canal. Expectations for Lynn Canal coho stocks are based on recent marine survival trends, escapement estimates, and fish wheel catch

### **King Salmon**

The 2016 preseason inriver abundance forecast for large ( $\geq$  age 1.3) Chilkat River king salmon is estimated to be 1,726 fish, below the inriver abundance goal range of 1,850 to 3,600 fish. Since the preseason forecast projects a return below the inriver abundance goal range, Chilkat Inlet in the early weeks of the season, will be managed for king salmon escapement. Chilkat Inlet will be closed to all fisheries north of the latitude of Seduction Point or the latitude of the southernmost tip of Talsani Island depending on sockeye and king salmon run strength as indicated by the lower Chilkat River fish wheel and drift gillnet projects.

## **Pink Salmon**

The department is projecting a strong return of pink salmon to Southeast Alaska in 2016. The ADF&G formal forecasted harvest of 34 million pink salmon in Southeast Alaska in 2016 is below the recent 10-year average harvest of 38 million pink salmon. If returns of pink salmon to Lynn Canal are as expected, the department will consider opening areas within District 15 to harvest excess pink salmon.

## **MANAGEMENT PLAN**

In 2016, ADF&G intends to manage the summer Lynn Canal drift gillnet fishery to obtain escapements within the established escapement goal ranges for all salmon stocks. Area, time, and gear restrictions will be in place during the first two or three weeks of the summer season to protect projected poor returns of Chilkat River king salmon.

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 based on the size of the run as measured in the lower Chilkat River fish wheels.

### **Section 15-A**

Section 15-A will open for two days beginning at 12:01 p.m., Sunday, June 19 (SW 26) in the waters of Lynn Canal, south and east of a line at the southernmost tip of Talsani Island to Eldred Rock Light to a point two nautical miles from the eastern shoreline at the latitude of Sherman Rock. Time, area, and gear restrictions will be in place as necessary to reduce the harvest of Chilkat River king salmon spawners. A maximum mesh size restriction of 6 inches will be in place through July 2. During at least the first two weeks of the season, the western shoreline of Section 15-A including Chilkat Inlet, will be closed. Subsequent openings will be based on inseason fishery performance and stock assessment information.

If inseason projections for Chilkoot and Chilkat Lake sockeye salmon early in the season are poor, Chilkat and Chilkoot Inlets may remain closed until escapements improve and are projected to meet escapement objectives. Chilkat Lake sockeye salmon run strength, as measured by the lower Chilkat River stock assessment projects and inseason fisheries performance, will dictate commercial fishery openings in Chilkat Inlet. If escapement of sockeye salmon to Chilkat Lake is poor, the northern boundary line may be moved to south of Seduction Point for most of the summer season to boost sockeye salmon escapement to Chilkat Lake. If the inseason information suggests that the Chilkoot Lake sockeye salmon run is not projected to meet escapement goals, restrictions in time and area of eastern and northern Section 15-A will be implemented until the department can project sockeye escapement within desired goal ranges.

The Chilkat mainstem sockeye salmon run overlaps with Chilkat Lake sockeye salmon and peaks in early to mid-July, followed by late run Chilkat Lake sockeye salmon, which typically dominate the sockeye run during mid to late August. Chilkat River stock assessment and the stock separation of the harvest will be used to monitor the stock composition of the sockeye run. Run timing is tied to freshwater age: mainstem sockeye salmon are predominantly freshwater

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 in SW 34. As in recent years, the northern boundary line in Section 15-A may move northward in stages as the coho and fall chum stocks begin to migrate 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 recent years. Fishermen are reminded that any extensions in fishing time during the fall season could be announced with little advanced notice as requested by industry during drift gillnet task force meetings. Extensions in fishing opportunity will be based on results of inriver 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) have occurred for two or three days per week from SW 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 an average return of coho salmon for Berners Bay streams, it is unlikely that openings within Berners Bay will occur in 2016.

### **Section 15-C**

Section 15-C will open for two days beginning at 12:01 p.m., Sunday, June 19, south of the latitude of Point Bridget on the eastern shoreline and south of Danger Point on the western shoreline. A maximum mesh size restriction of 6 inches will be in place at least through June 26.

Due to below average expected returns of Chilkat Lake sockeye salmon and average Chilkoot Lake sockeye salmon returns, open fishing time in Section 15-C will be limited to 2 or 3 days in the summer season, except for the Boat Harbor Terminal Harvest Area (BHTHA). If inseason projections for the Chilkat or Chilkoot Lake sockeye salmon runs are below the escapement goal range, it is possible that additional time, area, and gear restrictions will 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 (SW 27–31) of the hatchery chum salmon run. 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, if deemed necessary. 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. If the District 15 wild northbound sockeye salmon run is poor, openings in eastern Section 15-C could be limited to just the postage stamp area.

Six-inch minimum mesh size gear restrictions may be in place to reduce the harvest rate on Chilkoot Lake sockeye salmon during the summer season if necessary. Information gathered from the Chilkoot River weir program and from the commercial fishery will be used to judge run strength inseason for Chilkoot River sockeye salmon stocks.

The BHTHA will be opened for extended periods beginning in SW 28, (July 3). Management of this THA is described under the heading **DOUGLAS ISLAND PINK AND CHUM, INC. TERMINAL AREA FISHERIES**.

Fall season management will begin in SW 34 (August 14) 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 two to three 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 run strength warrants.

In order to avoid conflicts with sport fisheries, the District 15 drift gillnet fishery will not be open concurrent with the 2016 Juneau Golden North Salmon Derby (August 12–14). Consequently, during SW 34, the District 15 drift gillnet fishery will not open until Monday, August 15.

As in previous years, ADF&G management crews, as part of the marine fishery performance project, will be on the fishing grounds during commercial fishing periods to sample sockeye and king salmon and to monitor the fishery during each opening. ADF&G requests that commercially harvested sockeye and king 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 drift gillnet fishery form the basis of our stock separation analysis which is very important for 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 2016 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 the BOF management plan. The open drift gillnet fishing times and any modifications of the terminal fishing area will be announced by ADF&G news release prior to and during the fishing season.

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

NSRAA expects runs of 1,782,000 chum, 31,200 king, and 62,000 coho salmon to the Deep Inlet remote release site and the Medvejie Hatchery in 2016. This season, 90,000 chum salmon are needed for broodstock, and up to 400,000 chum salmon are needed for cost recovery, depending on price. NSRAA anticipates a closure of the THA in early August will be necessary to complete cost recovery needs. The majority of the common property harvest can be expected to take place in the Deep Inlet THA by drift gillnet and purse seine gear, but some harvest is likely to occur outside the THA by troll and purse seine gear as well.

The Deep Inlet THA fishery will be managed in accordance with the *District 13: Deep Inlet Terminal Harvest Area Salmon Management Plan* (5 AAC 33.376). The plan provides for distributing the harvest of hatchery-produced salmon between the purse seine and drift gillnet fleets. The BOF, during its March 2015 meeting, passed regulations requiring the time ratio for drift gillnet openings to purse seine openings as 2:1 for the 2015 – 2017 seasons; except from the third Sunday in June through statistical week 30, the time ratio for drift gillnet openings to purse seine openings is 1:1. However, if the postseason preliminary enhanced salmon harvest value data from the previous season indicates the purse seine gear group is within its enhanced salmon allocation percentage range, based on the five-year rolling average as described in 5 AAC 33.364, the time ratio for drift gillnet openings to purse seine openings is 2:1 for the entire season. The BOF also allowed trolling to occur when net fisheries are closed.

During king salmon management (May 29 to June 18) drift gillnet fishing is scheduled on Mondays, Tuesdays, Thursdays, and Fridays, and purse seine fishing is scheduled on Sundays and Wednesdays. During the first portion of chum salmon management (June 19 thru July 23) drift gillnet fishing is scheduled on Mondays, Tuesdays, and Wednesdays, and purse seine fishing is scheduled on Sundays, Thursdays, and Fridays. During the second portion of chum management (July 24 thru October 1) drift gillnet fishing is scheduled on Mondays, Tuesdays, Thursdays, and Fridays, and purse seine fishing is scheduled on Sundays and Wednesdays. Details of the rotational fishery schedule for Deep Inlet were announced in an ADF&G News Release on April 8, 2016.

The NSRAA board has requested that the common property rotational fishery begin May 29 in order to provide for common property harvest of king salmon returning to the Medvejie Hatchery. NSRAA expects a return of 31,200 king salmon to Medvejie Hatchery this season. THA rotational gear fisheries with four days of drift gillnet and two days of purse seine per week are scheduled to begin for drift gillnet gear on Monday, May 30, and continue through Friday, June 17.

Regulations allow ADF&G to require that commercial drift gillnets fished in the Deep Inlet THA prior to July 1 have a minimum mesh size of six inches. In 2016, drift gillnet fishermen will be required to fish with a minimum mesh size of six inches prior to June 18. 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.

NSRAA anticipates a closure of the THA in early August will be necessary to complete cost recovery needs.

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. The Deep Inlet THA west of 135°20.75' W. longitude will be closed to purse seine and drift gillnet gear beginning with the first emergency order of the season through the third Saturday in June.

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 2016 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.

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

Fishermen are reminded to be respectful of the rights of property owners who reside in the vicinity of the Deep Inlet THA. If complaints occur and are substantiated during the 2016 season, then the department, after consultation with NSRAA, may respond to complaints by changing scheduled fishing times or fishing boundaries of the Deep Inlet THA.

## **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 in accordance with management plans adopted by the BOF. The open drift gillnet fishing times will be announced via news releases prior to, and during, the fishing season. These openings are subject to change during the season by emergency order if necessary.

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

ADF&G, 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 12) 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 2016, SSRAA is expecting a total run of 1,237,000 summer chum, 250,000 fall chum, 254,800 coho, and 17,500 king salmon to return to Neets Bay.

The Neets Bay fishery will open to all gear beginning at 12:01 a.m., Sunday, May 1 and ending at 12:00 noon, Friday, 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 10 through 12:00 noon, July 4, a rotational fishery according to 5 AAC 33.370 will be conducted for the drift gillnet and purse seine fleets. Details of the 2016 season fishing schedule at Neets Bay was announced in an ADF&G News Release on April 13, 2016 and can also be found on the SSRAA website.

For 2016, the net rotational fishing schedule will be modified during SW 25 and SW 26 allowing additional closures to conserve Unuk River king salmon. This loss of time will coincide with the period when Unuk River king salmon transit this area as evidenced by tag data.

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 and broodstock 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]**

The Nakat Inlet THA includes the waters of Nakat Inlet north of Surprise Point at 54°49.10' N. latitude and west of 130°42.75' W. longitude. For 2016, approximately 260,000 summer chum, 82,800 fall chum, and 23,000 coho salmon are expected to return to Nakat Inlet. Peak chum salmon catches from these releases are expected between early July and early August for summer chum and between late August to mid-September for fall chum and coho salmon.

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

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

The projected Crystal Lake king salmon total run is approximately 3,600 adults, of which there are estimated to be less than 2,000 fish expected in the Wrangell Narrows (District 6) terminal area. Under provisions of the Wrangell Narrows-Blind Slough THA Management Plan, the commercial fishery will be open to harvest 50% of the projected terminal run over 4,000 fish. Based on the forecast, there is not likely to be surplus designated for commercial troll or drift gillnet harvest in the terminal area in 2016.

The total Crystal Lake Hatchery coho salmon run is expected to be 1,100 fish; of that, an estimated 600 fish will be available for sport and commercial harvest in the Wrangell Narrows-Blind Slough area. No commercial drift gillnet fishery is expected on Crystal Lake Hatchery origin fish in 2016.

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

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

For 2016, approximately 387,000 summer chum, 16,500 king, and 15,000 coho salmon are expected to return. The Anita Bay THA will open to harvest salmon by troll, drift gillnet, and purse seine from 12:01 a.m., Sunday, May 1, through 12:00 noon, Thursday, November 10. A rotational fishery will begin on June 12 between drift gillnet and purse seine fleets as described in 5 AAC 33.383. Since the seine gear group is below their enhanced salmon allocation range, the time ratio for gillnet openings to seine openings will be one to one from June 12, through July 23, then switch to a two to one ratio through August 31. This rotational fishing period will conclude on August 31 and the THA will open to both gear groups concurrently through the rest of the season. Details of this schedule were developed by SSRAA and announced by ADF&G in a news release on April 13, 2016.

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

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

The projection for the Amalga and Boat Harbor Terminal Harvest Area (BHTHA) enhanced chum salmon run in 2016 is approximately 1.63 million fish. This forecast run is well below the 2006–2015 average of 2.2 million fish. All of DIPAC's chum releases in Lynn Canal are thermal marked with the same pattern and the preseason projection is for the Amalga and Boat Harbor returns combined.

The BHTHA will be opened for extended periods beginning in SW 28 (July 3). The BHTHA is defined as those waters within two 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 nautical 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 at least through week 31 (July 30). 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. Escapements of wild chum salmon to the Endicott River have been below average in recent years.

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

The forecast total run of Snettisham Hatchery sockeye salmon in 2016 is 254,000 fish which is significantly larger than last year's total run of approximately 140,000 fish. These fish will be principally harvested in the traditional District 11 commercial drift 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 broodstock 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 have 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 six hours of notice from the time the fishery is announced to the time the fishery opens.

## **REFERENCES CITED**

- Conrad, S., and D. Gray. 2016. Overview of the 2015 Southeast Alaska and Yakutat commercial, personal use, and subsistence salmon fisheries. Alaska Department of Fish and Game, Fishery Management Report No. 16-09, 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. J. 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.
- Heinl, S. C., E. L. Jones III, A. W. Piston, P. J. Richards, and L. D. Shaul. 2014. Review of salmon escapement goals in Southeast Alaska, 2014. Alaska Department of Fish and Game, Fishery Manuscript Series No. 14-07, 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.
- Stopha, M. 2016. Alaska fisheries enhancement annual report 2015. Alaska Department of Fish and Game, Regional Information Report No. 5J16-03, Anchorage.

## FISHERY CONTACTS

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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, 2015.

<b>Fishery</b>	<b>King<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
<b>District 1</b>						
Traditional (Tree Point)	1,290	28,155	39,768	148,141	452,759	670,113
Terminal Harvest Area (Neets, Nakat)	2,057	1,018	18,236	8,875	367,512	397,698
Annette Island	1,413	5,796	23,851	144,959	444,627	620,646
<b>District 6</b>						
Traditional (Prince of Wales)	2,723	121,921	112,561	224,816	232,390	694,411
<b>District 7</b>						
Terminal Harvest Area	4,421	234	1,993	458	61,881	68,987
<b>District 8</b>						
Traditional (Stikine)	13,845	22,896	30,153	35,926	166,009	268,829
<b>District 11</b>						
Traditional (Taku/Snettisham)	1,083	55,096	23,169	288,625	475,181	843,154
Terminal Harvest Area	67	28,335	403	7,950	275	37,030
<b>District 13</b>						
Terminal Harvest Area	3,257	520	1,281	28,627	694,286	727,971
<b>District 15</b>						
Traditional (Lynn Canal)	498	124,430	23,278	462,865	709,826	1,320,897
Terminal Harvest Area	25	7,147	178	166,344	127,005	300,699
<b>Subtotals</b>						
Traditional	19,439	352,498	228,929	1,160,373	2,036,165	3,797,404
Terminal Harvest Areas	9,827	37,254	22,091	212,254	1,250,959	1,532,385
<b>Common Property Total</b>						
Annette Island Reserve	1,413	5,796	23,851	144,959	444,627	620,646
<b>Total</b>	<b>30,679</b>	<b>395,548</b>	<b>274,871</b>	<b>1,517,586</b>	<b>3,731,751</b>	<b>5,950,435</b>

<sup>a</sup> King salmon harvest includes jacks.

\* No cost recovery using gillnet gear.

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



Table 2.–Southeast Alaska annual Tree Point (District 1) traditional and terminal harvest areas (Nakat Inlet, Neets Bay) drift gillnet salmon harvest, in numbers, by species, 2005 to 2015.

<b>Year</b>	<b>King<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
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	4,922	70,607	68,522	174,052	339,159	657,262
2010	3,302	64,747	99,081	597,138	458,622	1,222,890
2011	4,661	91,825	36,183	357,811	566,508	1,056,988
2012	4,024	64,394	73,576	217,281	757,675	1,116,950
2013	4,483	55,948	111,133	763,434	329,680	1,264,678
2014	4,473	57,192	116,437	763,838	274,202	1,216,142
<b>2015</b>	<b>3,347</b>	<b>29,173</b>	<b>58,004</b>	<b>157,016</b>	<b>820,271</b>	<b>1,067,811</b>
<b>Average 2005–2014</b>	<b>3,574</b>	<b>61,851</b>	<b>71,550</b>	<b>403,935</b>	<b>436,897</b>	<b>977,807</b>

<sup>a</sup> King salmon harvest includes jacks.

Table 3.–Southeast Alaska annual Prince of Wales (District 6) traditional drift gillnet salmon harvest, in numbers, by species, 2005 to 2015.

<b>Year</b>	<b>King<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
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	2,138	111,984	144,569	143,589	287,707	689,987
2010	2,473	112,450	225,550	309,795	97,948	748,216
2011	3,008	146,069	117,860	337,169	158,096	762,202
2012	1,853	45,466	121,418	129,646	104,307	402,690
2013	2,202	49,223	160,659	474,551	94,260	780,895
2014	2,092	58,430	286,815	415,392	106,243	868,972
<b>2015</b>	<b>2,723</b>	<b>121,921</b>	<b>112,561</b>	<b>224,816</b>	<b>232,390</b>	<b>694,411</b>
<b>Average 2005–2014</b>	<b>2,105</b>	<b>84,881</b>	<b>143,697</b>	<b>289,481</b>	<b>171,572</b>	<b>691,735</b>

<sup>a</sup> King salmon harvest includes jacks.

Table 4.–Southeast Alaska annual Stikine River (District 8) traditional drift gillnet salmon harvest, in numbers, by species, 2005 to 2015.

<b>Year</b>	<b>King<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
2005	26,970	99,465	42,203	106,395	150,121	425,154
2006	30,033	61,298	34,430	56,810	343,827	526,398
2007	17,463	70,580	19,880	39,872	177,573	325,368
2008	14,599	35,679	34,479	18,105	81,876	184,738
2009	2,830	36,680	30,860	27,010	190,800	288,180
2010	2,359	32,737	42,772	58,610	51,005	187,483
2011	5,321	51,478	20,720	65,022	142,526	285,067
2012	8,027	21,997	20,100	16,374	240,569	307,067
2013	10,817	20,609	43,669	116,026	103,365	294,486
2014	8,023	19,808	30,184	33,830	84,771	176,616
<b>2015</b>	<b>13,845</b>	<b>22,896</b>	<b>30,153</b>	<b>35,926</b>	<b>166,009</b>	<b>268,829</b>
<b>Average</b>						
<b>2005–2014</b>	12,583	53,392	31,573	52,466	151,966	300,056

<sup>a</sup> King salmon harvest includes jacks.

Table 5.–Southeast Alaska annual Taku/Snettisham (District 11) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2005 to 2015.

<b>Year</b>	<b>King<sup>a</sup></b>	<b>Sockeye</b>	<b>Coho</b>	<b>Pink</b>	<b>Chum</b>	<b>Total</b>
2005	23,301	106,048	21,289	182,778	93,700	427,116
2006	11,261	262,527	60,145	191,992	382,952	908,877
2007	1,452	112,241	22,394	100,375	590,169	826,631
2008	2,193	116,693	37,349	90,162	774,095	1,020,492
2009	6,800	62,070	36,615	56,801	918,350	1,080,636
2010	1,685	76,607	62,241	132,785	488,898	762,216
2011	2,510	163,896	28,574	344,766	667,929	1,207,675
2012	1,291	140,898	24,115	193,969	566,741	927,009
2013	1,224	207,231	51,441	127,343	726,849	1,114,088
2014	1,471	126,738	54,186	29,190	291,409	502,994
<b>2015</b>	<b>1,150</b>	<b>83,431</b>	<b>23,572</b>	<b>296,575</b>	<b>475,456</b>	<b>880,184</b>
<b>Average</b>						
<b>2005–2014</b>	5,319	137,495	39,835	145,016	550,109	877,774

<sup>a</sup> King salmon harvest includes jacks.

Table 6.–Southeast Alaska annual Lynn Canal (District 15) traditional and terminal harvest area drift gillnet salmon harvest, in numbers, by species, 2005 to 2015.

Year	King <sup>a</sup>	Sockeye	Coho	Pink	Chum	Total
2005	710	65,469	27,947	209,833	326,895	630,854
2006	344	145,579	55,133	94,700	1,094,212	1,390,002
2007	1,063	156,798	18,137	89,782	823,158	1,089,957
2008	659	46,655	46,932	26,034	1,072,135	1,192,415
2009	681	126,594	35,820	163,057	845,710	1,171,862
2010	871	100,973	65,870	171,054	764,629	1,103,397
2011	1,177	63,788	33,761	508,930	1,115,821	1,723,477
2012	2,736	224,643	23,321	353,271	1,567,227	2,171,198
2013	1,148	122,103	68,009	127,703	1,509,501	1,828,464
2014	1,396	234,682	58,117	90,602	1,303,009	1,687,806
<b>2015</b>	<b>523</b>	<b>131,577</b>	<b>23,456</b>	<b>629,209</b>	<b>836,831</b>	<b>1,687,806</b>
<b>Average</b>						
<b>2005–2014</b>	1,079	128,742	43,309	183,497	1,042,317	1,398,943

<sup>a</sup> King salmon harvest includes jacks.

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

Year	Nass River Total Return	Nass River Escapement	Allowable Nass River AAH	Allowable Alaska Harvest (13.8%)	Actual Nass River Alaska Harvest	Cumulative: +overage / (-underage)
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	380,397	200,000	180,397	24,895	24,359	-164,092
2009	575,336	200,000	375,336	51,796	55,270	-160,618
2010	438,941	200,000	238,941	32,974	26,613	-166,979
2011	556,710	200,000	356,710	49,226	55,122	-161,083
2012	476,821	200,000	276,821	38,201	38,983	-160,302
2013	494,145	200,000	294,441	40,633	54,589	-162,722
2014	622,145	200,000	422,145	58,256	39,080	-181,899
2015 <sup>a</sup>	868,742	200,000	668,742	92,286	19,709	-254,476
2016 <sup>b</sup>	679,000	200,000	479,000	66,102		

<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
King <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 250,000	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> Heint et al. 2014

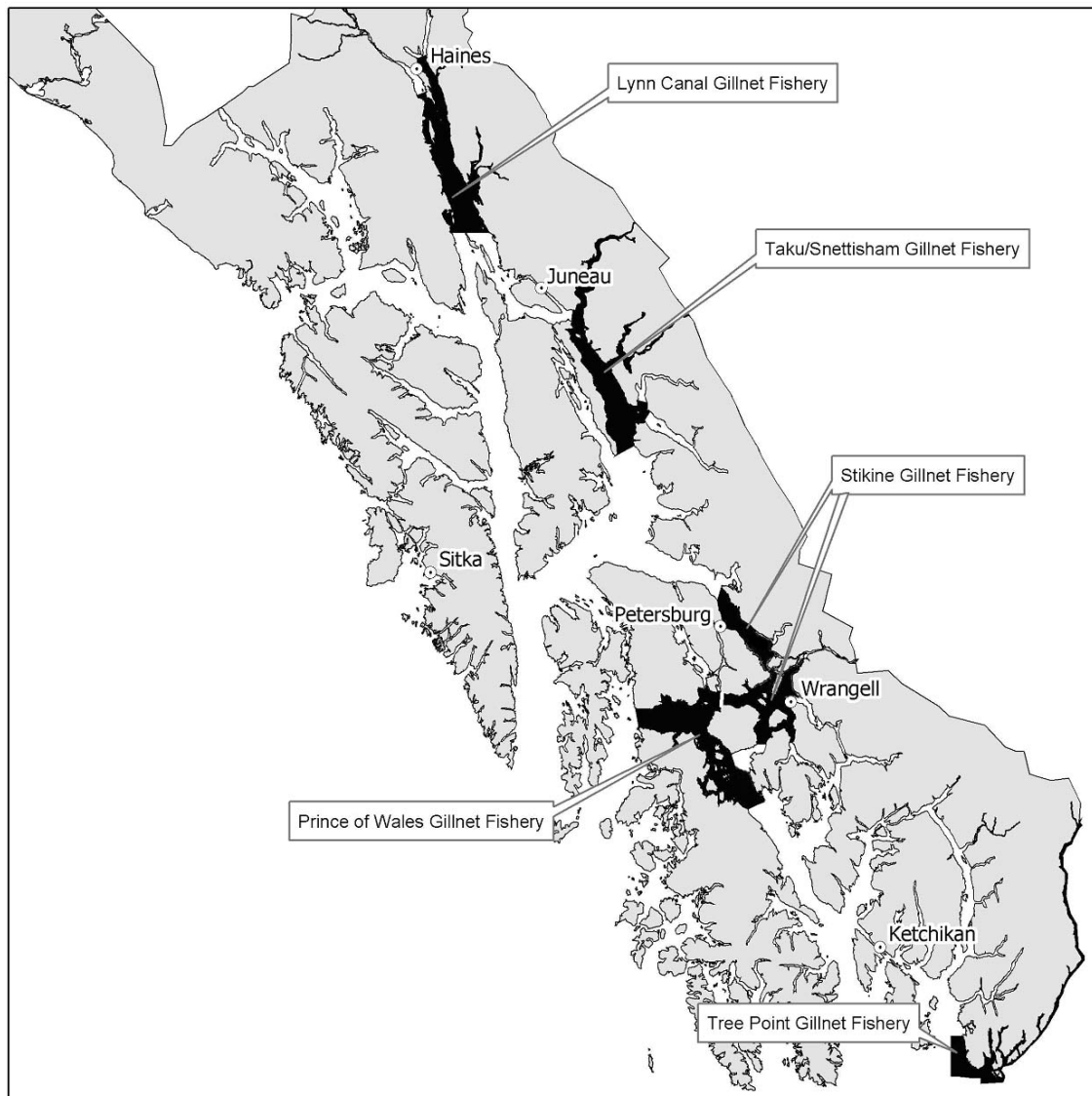


Figure 1.—Traditional drift gillnet fishing areas in Southeast Alaska.