Fishery Management Report No. 13-46

2012 Prince William Sound Area Finfish Management Report

by

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Alaska Department of Fish and Game **Divisions of Sport Fish and Commercial Fisheries**

Symbols and Abbreviations

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

Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
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

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat or long
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$\log_2$, etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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2012 PRINCE WILLIAM SOUND AREA FINFISH MANAGEMENT REPORT

By

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ABSTRACT

The 2012 Prince William Sound (PWS) management area (coastal waters and inland drainages entering the north central Gulf of Alaska between Cape Suckling and Cape Fairfield) commercial salmon harvest was 35.35 million fish. The harvest was comprised of 27.59 million pink *Oncorhynchus gorbuscha*, 3.70 million sockeye *O. nerka*, 3.83 million chum *O. keta*, 210,000 coho *O. kisutch*, and 13,200 Chinook salmon *O. tshawytscha*. Approximately 31.38 million fish were commercial common property harvest and 3.97 million fish were sold for hatchery cost recovery. Homepack, salmon obtained by educational permits, and donated fish accounted for less than one percent of total harvest. Based on an informal survey of salmon processors in the PWS and Copper River area, the preliminary estimated value of the combined commercial salmon harvest, including hatchery sales was $114.97 million. During the 2012 season, 522 drift gillnet, 29 set gillnet, and 224 purse seine permit holders fished. Drift gillnet exvessel harvest value was an estimated $55.27 million, setting average permit earnings at $106,000; set gillnet exvessel harvest value was an estimated $2.61 million, setting average permit earnings at $89,900; purse seine exvessel harvest value was an estimated $41.75 million, setting average permit earnings at $186,000. Revenue generated for hatchery operations was approximately $15.34 million. The PWS management area personal use and subsistence fisheries harvested a total of 231,000 fish in 2012. For these fisheries, approximately 12,400 subsistence and personal use permits were issued to Alaska residents. The commercial Pacific herring *Clupea pallasii* fishery in the PWS management area was closed in 2012 for the thirteenth consecutive year because the spawning biomass was below the regulatory spawning biomass threshold.

Key words: Prince William Sound, Copper River, salmon, harvest, drift gillnet, set gillnet, purse seine, commercial salmon harvest, salmon enhancement, PWSAC, VFDA, hatchery, cost recovery, sport fishery, subsistence fishery, personal use fishery, escapement, sockeye salmon, *Oncorhynchus nerka*, pink salmon, *Oncorhynchus gorbuscha*, chum salmon, *Oncorhynchus keta*, Chinook salmon, king salmon, *Oncorhynchus tshawytscha*, coho salmon, *Oncorhynchus kisutch*, Pacific herring, *Clupea pallasii*, Area Management Report, Annual Management Report (AMR)

PRINCE WILLIAM SOUND MANAGEMENT AREA COMMERCIAL SALMON AND HERRING FISHERIES

OVERVIEW OF MANAGEMENT AREA

The Prince William Sound (PWS) management area, also known as Area E, encompasses all coastal waters and inland drainages entering the north central Gulf of Alaska between Cape Suckling and Cape Fairfield (Figure 1). In addition to PWS, the management area includes the Bering and Copper rivers and has a total adjacent land area of approximately 38,000 square miles.

The salmon management area is divided into 11 districts that correspond to the local geography and distribution of the 5 species of salmon harvested by the commercial fishery (Figure 2). The management objective for all districts is the achievement of spawning escapement goals for the major salmon species and stock groupings while allowing for the orderly harvest of all fish surplus to spawning requirements. In addition, Alaska Department of Fish and Game (ADF&G) follows regulatory plans to manage fisheries and allow private non-profit hatcheries to achieve cost recovery and broodstock objectives.

Six hatcheries contribute to the area's fisheries. Five are operated by the regional aquaculture association, Prince William Sound Aquaculture Corporation (PWSAC). Gulkana Hatchery (GH) in Paxson augments production of sockeye salmon *Oncorhynchus nerka* to the Copper River. Cannery Creek Hatchery (CCH), located on the north shore of the sound, and Armin F. Koernig Hatchery (AFK) in the southwestern sound produce pink salmon *O. gorbuscha*; Wally Noerenberg Hatchery (WNH) in the northwestern sound produces pink, chum *O. keta*, and coho

O. kisutch salmon; and Main Bay Hatchery (MBH) in the western sound produces sockeye salmon. Valdez Fisheries Development Association (VFDA) operates Solomon Gulch Hatchery (SGH) in Port Valdez and produces pink and coho salmon.

Gear for the salmon fishery includes purse seine, drift gillnet, and set gillnet. Drift gillnet permits are the most numerous and are allowed in the Bering River, Copper River, Coghill, Unakwik, and Eshamy districts. From 2009 through 2012, drift gillnet gear was permitted to harvest hatchery chum salmon in the Port Chalmers Subdistrict of the Montague District as stipulated in the *Prince William Sound Management and Allocation Plan* (5 AAC 24.370). Set gillnet gear is allowed only in the Eshamy District. Purse seine gear is allowed in the Eastern, Northern, Unakwik, Coghill, Northwestern, Southwestern, Montague, and Southeastern districts.

As an avenue for the commercial fishing industry to formally provide management recommendations to the ADF&G, representatives from PWS area processors, gear groups, and aquaculture associations sit on an advisory body known as the PWS Salmon Harvest Task Force (SHTF). Fishermen's meetings are held every spring to discuss management strategy for the upcoming fishing season.

When Pacific herring *Clupea pallasii* spawning biomass allows for a commercial fishery, an annual harvest level is determined for each of the 5 commercial fisheries: purse seine sac roe, gillnet sac roe, spawn-on-kelp not in pounds, and spawn-on-kelp in pounds fisheries occurring in the spring, and herring food/bait fishery occurring in the fall. The guideline harvest level established by the *Prince William Sound Herring Management Plan*, 5 AAC 27.365, is intended to provide for an optimum sustained yield and an equitable allocation for all user groups in PWS. The management objective for PWS herring is to target fisheries on a high quality portion of the biomass while maintaining a threshold spawning biomass.

OVERVIEW OF AREAWIDE SALMON AND HERRING FISHERIES

The 2012 PWS management area commercial salmon harvest was 35.35 million fish. The harvest was composed of 27.59 million pink, 3.70 million sockeye, 3.83 million chum, 210,000 coho, and 13,200 Chinook salmon *O. tshawytscha* (Table 1; Figure 3). Hatchery runs of coho and pink salmon were below forecast, but the sockeye and chum salmon harvest was above forecast (Appendix E1). Sockeye and chum salmon harvest was above the 10-year (2002–2011) commercial harvest average (Table 2). Approximately 88.8% of the commercial harvest, 31.38 million fish, was attributed to the commercial common property fishery (CCPF) and 3.97 million fish were attributed to the hatchery cost recovery fishery. Homepack harvest accounted for less than one percent of Area E harvest (Table 1). The 2012 preliminary exvessel value estimates by gear group from the CCPF, including both wild and enhanced salmon, are $41.75 million (41.9%) for purse seine, $55.27 million (55.5%) for drift gillnet, and $2.61 million (2.62%) for set gillnet (Table 3; Figure 4). The average price per pound paid to fishermen was above the 10-year (2002–2011) average for all species overall, but the price for gillnet caught sockeye and chum salmon in the Copper River District and gillnet caught Chinook salmon in PWS were below the 10-year average (Table 4). The harvest value for the drift gillnet gear group was the highest on record, and the set gillnet gear group had the third highest harvest value on record. The purse seine gear group harvest value was the third highest in the last 10 years and above the 10-year average (Table 5).

As the result of amendments made to the *Prince William Sound Management and Salmon Enhancement Allocation Plan* (5 AAC 24.370) at the December 2005 Alaska Board of Fisheries (BOF) meeting, and because the 5-year average enhanced exvessel value for the purse seine gear group exceeded their limit of 55%, drift gillnet permit holders were permitted to harvest hatchery chum salmon in the Port Chalmers Subdistrict of the Montague District (Figure 1).

No commercial fisheries for herring occurred in 2012; the projected spawning biomass for spring 2012 was below the regulatory minimum spawning biomass of 22,000 tons. The spawning biomass projection of 18,900 tons did not provide a harvestable surplus to allocate fish among all 5 herring fisheries. Given the PWS herring spawning population, current size and age structure, a commercial harvest is not anticipated in 2013.

SALMON SEASON SUMMARY BY DISTRICT

COPPER RIVER DISTRICT

The Copper River District includes all waters of the Gulf of Alaska between Hook Point and Point Martin (Figure 1). The seaward boundary of the Copper River District is a line 3 miles due south of a line from the southernmost tip of Pinnacle Rock on Kayak Island to the tip of Hook Point on Hinchinbrook Island. The inshore boundary line is from Government Rock to a point 500 yards seaward of the junction of Mountain Slough, Center Slough, and Eyak River, then east within a line located approximately 2 miles seaward of the grass banks and in Boswell Bay. The inshore boundary line has remained in effect since the 1964 earthquake when the delta area rose approximately 2 meters. Before the earthquake, the inshore boundary was within 500 yards of the grass banks. After the earthquake, the inshore boundary was moved seaward to protect rivers and sloughs from gillnets closing off the entire channel during low water sets. With the loss of fishing area inside the islands, many fishermen moved outside the islands. This move outside the barrier islands lessened some of the congestion in the inside waters.

Average 10-year commercial harvest from the Copper River District for the years 2002–2011 was 27,800 Chinook, 1.21 million sockeye, and 278,000 coho salmon. The 25-year average for the years 1987–2011 was 37,100 Chinook, 1.29 million sockeye, and 274,000 coho salmon (Appendix A4). The 2012 harvest was 11,800 Chinook, 1.87 million sockeye, and 130,000 coho salmon (Table 1).

ADF&G, with direction from the BOF, manages salmon runs to the Copper River District to assure sustained yield and meet all user group allocations, as outlined in 5 AAC 24.360, *Copper River District Salmon Management Plan*. At the December 1999 BOF meeting, 5 AAC 24.361, *Copper River King Salmon Management Plan*, was amended to provide ADF&G both the tools and the discretion to manage early season fisheries as necessary to maintain the spawning escapement within the range of 28,000 to 55,000 Chinook salmon. In 2003 the spawning escapement goal was changed to 24,000 or greater Chinook salmon (Table 6; Bue et al. 2002). At the December 2005 BOF meeting, the *Copper River King Salmon Management Plan* was amended to limit the number of commercial openings inside of the barrier islands in statistical weeks 20 and 21 to no more than 1 per week. At the December 2011 BOF meeting, the *Copper River King Salmon Management Plan* was amended to limit the number of commercial openings inside of the barrier islands in statistical weeks 20 and 21 to no more than 1 during this entire 2 week period to increase the probability of making the escapement goal.

Achieving escapement goals and satisfying management plan provisions remain the primary management objectives of ADF&G. Management tools such as inriver sonar, aerial survey observations, Chinook salmon mark–recapture estimates, and harvest data provide ADF&G fishery managers with indices of abundance used to regulate Copper River fisheries. ADF&G relies on the inriver passage index provided by the sonar at Miles Lake to manage the commercial fishery and provide for upriver escapement and fishery allocations. Additionally, upper river aerial escapement observations, thermal and strontium marked otolith data, and weir and tower data have provided supporting information on the relative success of ADF&G in meeting provisions of the *Copper River District Salmon Management Plan*.

From 2002 to 2011 the combined reported upriver subsistence and personal use harvest (federal and state) has ranged from 140,000 sockeye salmon (in 2008) to 226,000 (in 2010), with a 10-year average of 181,000 sockeye salmon (Appendix A1). A general increasing trend in subsistence harvest is reflected annually through additions to the inriver goal.

The Copper River District commercial fishing season has historically opened in mid-May. Commercial fishing periods, as described in regulation, that ran from Monday morning to Friday evening were standard management practice prior to 1968, after which periods were established inseason by emergency order (EO). In general fishing time has steadily been reduced over the years in response to increased efficiency of the commercial fleet and reallocations by the BOF. Two commercial fishing periods per week has been the recent schedule with the duration of each fishing period dependent upon trends in escapement, harvest, and environmental conditions.

In December 2011, the BOF adopted a range of 360,000–750,000 wild sockeye salmon as the sustainable escapement goal (SEG) (5 AAC 24.360(a)) for the upper Copper River (Fair et al. 2011). Between 2003 and 2011, a range of 300,000–500,000 wild sockeye salmon was utilized as the SEG for the upper Copper River (Table 6; Bue et al. 2002). Prior to 2003, the sockeye salmon SEG was 300,000 fish (adopted in 1972 and placed into regulation in 1980; Fried 1994).

The components of the 2012 inriver goal were as follows:

Spawning escapement	360,000 to 750,000 sockeye salmon
Other salmon	17,500 salmon
Subsistence harvest	71,000 salmon
Personal Use harvest	120,000 salmon
Sport fishery	15,000 salmon
Gulkana Hatchery broodstock	20,000 sockeye
Gulkana Hatchery surplus	80,500 sockeye
Total	684,000 to 1,074,000 salmon

Of the 7 categories within the inriver goal, the most significant increases over time have been in hatchery surplus, subsistence, and personal use categories. In the early 1980s, the Miles Lake sonar minimum inriver goal was 350,000 salmon. Since that time, the minimum inriver goal has been set as high as 768,000, primarily in response to large forecasts of enhanced sockeye salmon and increasing subsistence and personal use harvests. Subsistence and personal use salmon within the inriver goal are calculated annually using the average subsistence and personal use harvest from the previous 5 years. However, the subsistence and personal use additions to the inriver goal must be within allocation ranges specified in 5 AAC 24.360 as 100,000 to 150,000 (Chitina Subdistrict personal use) and 61,000 to 82,500 (Glennallen Subdistrict subsistence). The

daily inriver goal is the anticipated number of salmon counted daily at the Miles Lake sonar necessary to meet the overall inriver goal. For 6 of the 7 inriver goal components, the daily inriver goal is calculated using both wild and enhanced salmon run timing. The subsistence harvest component however is calculated using only wild stock run timing. This is required by AS 16.05.940(33) which states: "subsistence uses" means "the noncommercial, customary and traditional uses of *wild*, renewable resources..." Hatchery surplus sockeye salmon within the inriver goal is determined annually using the GH run forecast to estimate the surplus escapement of hatchery fish required to not exceed the wild stock exploitation rate estimated to produce maximum sustained yield (70.0%) during the late June and July mixed stock fishery in the Copper River District (Clark et al. 2007). Surplus hatchery sockeye salmon do not fulfill any wild salmon escapement needs, nor are they linked to any upriver subsistence or sport allocations; these fish are not intended for harvest in any fishery, but a significant percentage are harvested during July and August in these upriver fisheries.

Preseason Outlook and Harvest Strategy

The 2012 commercial harvest forecast for the Copper River District was 20,000 Chinook, 1.23 million sockeye, and 282,000 coho salmon (Appendix A10). The GH enhanced sockeye salmon run was forecast by ADF&G to be 335,000 fish (Appendix E1). PWSAC requires approximately 20,000 fish for broodstock and the ADF&G builds in hatchery surplus into the inriver goal. All GH fish beyond these categories are available for commercial, subsistence, personal use, and sport harvests. The 2012 inriver goal for salmon passing Miles Lake was 684,000 to 1.07 million fish. This number equated to a sonar goal of 649,000 to 1.02 million salmon by July 26, which was the season ending date for sonar counting at Miles Lake in 2012 (Appendix A7).

The current fishing schedule for the Copper River District is 2 evenly spaced fishing periods per week, with periods generally occurring on Mondays and Thursdays and the duration of periods is announced by emergency order. It was agreed upon at the SHTF meeting in 2007 that the second gillnet fishing period in each week would begin Thursday morning rather than Thursday evening as had been the standard for over 15 years prior to that year. This change was requested by the majority of the permit holders who indicated a preference for starting the openings in the mornings. Most processors also supported this change as it provided additional time to process and ship fresh product to the weekend markets.

During years when Miles Lake sonar is not operational prior to the first opening, early season management of the Copper River District is based on actual harvest versus anticipated harvest. In addition, environmental conditions, fishing effort, and harvest consistency throughout the period are also taken into account. In late May, sonar counts and commercial harvest information become the primary factors governing management of the fishery. By mid-June, aerial indices of sockeye salmon escapement in Copper River Delta systems are also considered when scheduling commercial fishing periods. Because of the many spawning systems in the Copper River Delta, an actual weekly escapement index of selected sockeye and coho salmon systems is compared to an anticipated weekly escapement index. The SEG for Copper River Delta sockeye salmon stocks is 55,000 to 130,000 fish (Table 6; Bue et al. 2002).

Typically, coho salmon management begins in the second week of August. The historical precedent is to provide an initial single 24-hour opening per week. If harvest or aerial survey numbers warrant, the duration of this fishing period may be increased to 36, 48, or 60 hours; or a second fishing period may be added during the week. Aerial escapement indices for the early

portion of the coho salmon run likely underestimate salmon abundance due to other species of salmon remaining in tributaries, making accurate species identification problematic. Additionally, stormy fall weather makes weekly survey flights difficult. The SEG for the Copper River Delta is 32,000 to 67,000 coho salmon (Table 6; Bue et al. 2002).

Sockeye and Chinook Salmon Fishery Season Summary

The total 2012 Copper River sockeye salmon run was 3.29 million fish with 1.87 million (56.7%) commercially harvested and sold, 221,000 (6.70%) harvested by upriver subsistence and personal use fishermen, and an estimated 14,100 (0.50%) by upriver sport fishermen. Commercial permit holders retained 7,990 sockeye salmon for "homepack" (0.24%). Sport fishermen on the Copper River Delta harvested an estimated 1,230 (<0.10%) sockeye salmon. Reported educational permit and subsistence harvest in the Copper River District totaled 4,530 (0.14%). Upriver and Copper River Delta wild sockeye salmon escapement was 1.11 million (33.8%) fish, and 65,300 (1.98%) fish returned to the GH sites (Appendix A1). Overall, 2.49 million (76.1%) of the sockeye salmon entering the Copper River District originated from upriver wild stock systems, 334,000 (10.2%) from Copper River Delta wild stock systems, and 451,000 (13.8%) came from the GH (Appendix A2).

The 2012 total Chinook salmon run was 43,800 fish with 11,800 (26.9%) commercially harvested and sold, 1,100 (2.50%) harvested through educational, subsistence permits in the Copper River District, and retained by commercial permit holders as "homepack." A total of 3,080 (7.04%) were harvested by upriver personal use and subsistence users, an estimated 2,850 (6.51%) were harvested by sport fishermen, and the remaining 25,000 (57.1%) represent spawning escapement (Appendix A3). This spawning escapement is above the SEG lower bound of 24,000 for Copper River Chinook salmon specified in 5 AAC 24.361(a). The entire Chinook salmon run is assumed to have originated from wild upriver stocks.

The Copper River commercial sockeye salmon harvest of 1.87 million was 52.0% above the projected 1.23 million and 54.5% above the previous 10-year average of 1.21 million sockeye salmon. The commercial harvest of 11,800 Chinook salmon was 44.3% of the previous 10-year average of 26,600 fish (Appendix A4). A total of 510 drift gillnet permits were active in the Copper River District in 2012 out of 532 total permits. Peak participation occurred in the fourth fishing period, May 28–29, when 476 permit holders reported deliveries (Appendix A5).

The cumulative Miles Lake sonar count on July 26 was 1.29 million salmon, which was above the inriver goal range of 649,000 to 1.02 million salmon for that date (Appendices A7 through A9). River height was above the 30-year average briefly in early June and then again in late June. Throughout the first half of July water level on the river plummeted, bottoming out at a record low on July 14(Appendix A11). Final escapement index count for the Copper River Delta systems was 66,900 sockeye salmon; within the SEG range of 55,000–130,000 fish (Appendix A12; Table 6) and almost 10,000 fish below the recent 10-year average (Appendices A12 and A13). Two aerial surveys of upper Copper River index streams were conducted and peak counts for these surveys are in Appendix A13.

Based on strontium chloride (Sr) otolith mark analysis, 330,000 GH sockeye salmon were harvested in the Copper River District commercial fishery in 2012, accounting for 17.7% of the total sockeye salmon commercial harvest (Appendix E6). This is almost double the previous 10-year contribution average of 166,000 hatchery sockeye salmon (Appendix E7). The majority were 5-year-old fish from the 2008 GH release of 21.98 million fry. (Appendix E8).

Additionally, there were an estimated 19,400 MBH sockeye salmon in the Copper River District commercial harvest (Appendix E6).

The Miles Lake north bank sonar became operational on May 16 and the south bank became operational on May 18. The first observed salmon were enumerated on May 16 with the north bank passing 108 fish. Both banks began 24-hour monitoring on May 19 (Appendices A7 and A8).

Due to a poor Chinook salmon forecast, inside waters as described in 5 AAC 24.350(1)(B) were closed for the first 10 fishing periods, 7 fishing periods beyond the regulatory requirement in 5 AAC 24.361(b). Actual Chinook salmon harvest was below inseason harvest projections for 9 of the first 10 periods, prompting the ADF&G to maintain the inside waters closure through the majority of the Chinook salmon run based on the likelihood of a smaller than anticipated Chinook salmon run.

The first Copper River District commercial fishing period on Thursday, May 17 was for 12 hours and 473 commercial drift gillnet permits fished. Harvest from this period was 156,000 sockeye and 1,000 Chinook salmon. The anticipated harvest was 31,700 sockeye and 2,120 Chinook salmon (Appendices A5 and A10). Sockeye salmon harvest was almost five times the anticipated harvest, giving an early indication of the large run to come. Processors reported paying approximately $6.50 per pound for Chinook and $4.00 per pound for sockeye salmon. The second 12-hour period occurred on Monday, May 21 and 403 permit holders reported deliveries, 70 fewer permits than the previous period. Harvest from this period was 219,000 sockeye salmon, remaining above the anticipated harvest of 93,600, and 1,290 Chinook salmon, well below the anticipated harvest of 3,460 fish (Appendices A5 and A10). Strong sockeye salmon run entry through the west and central portion of the district, both inside and outside the barrier islands, accounted for a majority of the harvest. The third 12-hour period occurred on Monday, May 24. Harvest from this period was 254,000 sockeye and 1,190 Chinook salmon and 391 permit holders made deliveries. Anticipated harvest for this period was 83,900 sockeye and 2,150 Chinook salmon. Sockeye salmon harvest was more than triple the anticipated and 40% of the cumulative harvest; however, Chinook salmon harvest was below anticipated and cumulative harvest for that date (Appendices A5 and A10). Chinook salmon was 31.3% below and sockeye salmon was more than triple the recent 5-year average cumulative harvest (2007–2011). The sockeye salmon harvest for this period ranked third largest historically.

The second largest series of spring tides (greater than 12 feet) in May occurred during the first week of the commercial fishing season. Larger tidal cycles typically are a contributing factor to salmon movement and passage, frequently correlating to above expected commercial harvests and counts at the Miles Lake sonar station. Sonar passage during statistical weeks 20 and 21 (May 13–19 and 20–26) increased steadily with 108,000 salmon counted compared to an inriver goal of 80,300 for the 2 week period. Sockeye salmon inriver passage appeared to be close to anticipated as evidenced by sonar counts being slightly ahead of anticipated counts (Appendices A7 and A8).

Harvest from the fourth period that started on Monday, May 28 was 153,000 sockeye and 1,660 Chinook salmon and 476 permit holders reported deliveries. This harvest was 37.8% higher than the anticipated sockeye salmon harvest and 65.1% of the anticipated Chinook salmon harvest. This fishing period was the first 36-hour period of the season (Appendices A5 and A10). Harvest from the 48-hour period on Thursday, May 31 was 130,000 sockeye and 2,040 Chinook salmon

and 357 permit holders made a delivery. Anticipated harvest was 85,400 sockeye and 1,850 Chinook salmon. Sonar counts during the first half of this week doubled the cumulative minimum inriver goal and by the end of the week (June 2) cumulative sonar passage was nearly 150,000 fish above the cumulative maximum inriver goal (Appendices A7 and A8).

Even with a regular fishing schedule, Miles Lake sonar passage averaged 57,400 fish per day on May 26–31 and resulted in a cumulative passage of 344,000 fish, about half of the minimum inriver goal (Appendices A7 and A8). In 2011, 211,000 fish passed the sonar in the same number of days with similar timing (May 24–29). Both of these large fish passage events occurred during a regular fishing schedule in years with sockeye salmon runs in the top 5 overall. Weak Chinook salmon runs in both years necessitated limiting time in the commercial fishery to avoid overexploiting the Chinook salmon run. In contrast to, but with similar results, the Copper River salmon run was compressed and late in 2010 and resulted in an extended fishery closure. These consecutive closures contributed to the passage of 168,000 salmon in a week (Botz and Somerville 2011). The pattern of sonar counts waning in the early portion of the season, then rapidly escalating as hundreds of thousands of salmon entered the district and river following a closure of the commercial fishery, has occurred frequently in the past and is difficult to predict with limited early season run entry information. A regular fishing schedule helps to alleviate some of these large swings in escapement, but as the 2011 and 2012 Copper River salmon runs illustrated, even with a regular schedule of openings and expanded fishing time after the third fishing period, episodes of high escapement will likely occur with large salmon runs.

Harvest from the Monday, June 4 period (36 hours) was 85,700 sockeye and 1,640 Chinook salmon and 392 permit holders made deliveries. Anticipated harvest was 104,000 sockeye and 1,950 Chinook salmon. Harvest from the Thursday, June 7 period was 48,100 sockeye and 696 Chinook and 294 permit holders made deliveries. Anticipated harvest was 52,800 sockeye and 996 Chinook salmon (Appendices A5 and A10). Salmon passage at the Miles Lake sonar was greater than the daily inriver goal through June 1, but averaged about 1,490 fish less than the daily inriver goal during statistical week 23 (June 3–June 9). This decrease in salmon passage occurred while the cumulative inriver passage count reached an early season peak of 258,000 fish above the minimum inriver goal (Appendices A7 and A8).

Daily sonar passage through statistical week 24 (June 10–16) was low with daily sonar counts consistently below the minimum daily inriver goal. The actual sonar count averaged a daily deficit of 2,860 fish over this time period, but by the end of the week the actual cumulative salmon passage was still 224,000 fish ahead of the minimum anticipated inriver goal (Appendices A7 and A8). Periods of 36 hours began on Monday, June 11 and Thursday, June 14 and the sockeye salmon harvest averaged 53,800 fish and Chinook salmon harvest averaged 683 fish, representing declines from the previous week's sockeye and Chinook salmon harvest averages of 66,900 and 1,170 fish, respectively. Participation in this fishery declined by 212 permits from June 4 through June 15 (Appendices A5 and A10). This reduction in fishing effort was likely the result of permit holders choosing to focus on runs of PWS hatchery sockeye salmon (MBH) and chum salmon (WNH). From June 18 to June 22 participation in the fishery continued to decline, and a low of 109 permits occurred during period 11 (June 21–22). Fishing periods were reduced to 24 hours to provide an extended escapement window for Copper River Delta sockeye salmon stocks. Sockeye salmon harvest began to increase during this time period, indicating an increase in the abundance of GH sockeye salmon. Chinook salmon harvest decreased, showing a harvest trend similar to anticipated during this time period. Harvest

averaged 251 Chinook salmon per fishing period, whereas the anticipated harvest average was 378 Chinook salmon (Appendices A5 and A10). In the first port sample on June 11, GH enhanced sockeye salmon represented 21.9% of the overall sockeye salmon harvest. By the June 21 fishing period, the GH sockeye salmon component had grown to 34.4% of the harvest (Appendix E6).

Supported by increasing numbers of GH sockeye salmon and based on higher than anticipated Copper River Delta sockeye salmon escapement indices, the Monday, June 25 and Thursday, June 28 fishing periods were increased to 36 hours (Appendix A5 and A12). This decision was supported by historical run timing of the wild and enhanced stocks and by increasing numbers of Sr marked GH fish harvested in the commercial fishery. Participation and harvest in these fishing periods increased from the previous week and 146 permit holders reported 92,300 sockeye and 132 Chinook salmon harvested in the Monday period and 166 permit holders reported 80,200 sockeye and 104 Chinook salmon harvested in the Thursday period. GH sockeye salmon were close to peak abundance in the fishery during these fishing periods, representing 45.8% (June 25) and 42.1% (June 28) of the harvest. (Appendix E6). With sonar passage increasing and strong sockeye salmon wild stock contributions in the fishery, a 48-hour fishing period schedule was implemented under the assumption that GH and wild sockeye salmon could likely withstand higher exploitation in the commercial fishery. Fishing time and area were primarily based on inseason indices of available wild stock surplus and secondarily by abundance of GH sockeye salmon. Copper River Delta aerial escapement surveys were hampered by bad weather and poor water conditions at the end of June and in early July; survey results were assumed to be incomplete and biased low during this time period (Appendix A12). The GH sockeye salmon fishery peaked during the July 2–4 fishing period, and 196 permit holders' harvested 161,000 sockeye salmon. This harvest was nearly three times the anticipated harvest (54,700 fish), and only 23% less than the record peak midseason harvest of 208,000 sockeye salmon in 2011 (Appendices A5 and A10).

Miles Lake sonar continued to exhibit elevated passage from July 1 to July 20, and daily counts were more than double the daily minimum inriver passage objective. The cumulative count over this time period was 400,000 salmon counted versus a minimum inriver goal of 134,000 salmon (Appendix A7). Copper River Delta survey conditions improved and the sockeye salmon escapement index was ahead of the anticipated inseason escapement index starting July 15, allowing for the continuation of a regular fishing schedule (Appendix A12). A schedule of either two 48-hour or 36-hour periods per week continued until the start of coho salmon management on August 16. Fleet participation declined from mid-July through early August, from 174 permits on the July 9 fishing period to 1 permit on the August 2 fishing period. Sockeye salmon harvest declined from 135,000 fish on the July 9 fishing period to fewer than 300 fish per period after the August 2 fishing period (Appendix A5). Low fleet participation in the fishery in late July and early August was largely the result of a combination of low harvest rates and high fuel prices.

Daily sonar passage at Miles Lake from July 21 to July 26 was consistently above the projected minimum. The cumulative sonar count on July 26 was 1.29 million salmon, 275,000 fish above the maximum inriver passage objective of 1.02 million (Appendices A7 and A8). The final escapement index value for Copper River Delta sockeye salmon stocks based on aerial surveys was 66,900, and was within the SEG range of 55,000 to 130,000 fish (Appendix A12; Table 6).

Since 2002, the escapement index has ranged from a low of 58,400 in 2005 to a high of 98,900 in 2006 and recent 10-year average index value of 76,000 (Appendix A13).

The overall commercial harvest of 1.87 million sockeye salmon from the Copper River District was the fifth largest commercial harvest in the history of the fishery. The overall commercial harvest of Chinook salmon was the tenth lowest since 1960 (Appendix A4).

Fishing effort in 2012 peaked during the fourth period that began May 28 when 476 permit holders harvested 153,000 sockeye and 1,660 Chinook salmon during a 36-hour opening. Peak Chinook salmon harvest also occurred during this fishing period. Peak sockeye salmon harvest occurred during the Thursday, May 24 fishing period when 254,000 fish were harvested by 391 permit holders (Appendix A5).

Typically, 5-year-old sockeye salmon make up 70–85% of the Copper River run and 5-year-old Chinook salmon make up 50–80% of the run. The majority of the sockeye salmon harvested commercially, 85.4%, were 5-year-old fish from brood year 2007, and most of the rest were 4-year-old fish (12.6%) and 6-year-old fish (1.82%). Over half of the sockeye salmon harvested, 51.7%, were males (Appendix A15). The majority of the Chinook salmon harvested commercially, 71.6%, were also 5-year-old fish from brood year 2007, and most of the rest were 4-year-old (10.7%) and 6-year-old fish (17.2%). Approximately 0.344% of the run was 7-year-old fish from brood year 2005. Less than half of the Chinook salmon harvested, 49.6% were males (Appendix A16).

Coho Salmon Fishery Season Summary

The 2012 coho salmon run, excluding upriver spawning escapement, was estimated to be 222,000 fish. Total run size for coho salmon in the Copper River does not include upriver spawning escapement because the number of coho salmon migrating upriver is not assessed. A total of 130,000 (58.6%) coho salmon were harvested and sold commercially; 1,040 were reported retained as "homepack;" 0 were harvested from the Copper River District in the subsistence gillnet fishery; 1,390 were harvested by personal use and subsistence dip net fishermen in the Chitina Subdistrict; 508 were harvested in the Glennallen Subdistrict dip net and fish wheel subsistence fisheries; an estimated 14,800 (6.66%) were harvested by sport fisherman on the Copper River Delta near Cordova; and an estimated 57 fish were harvested by upriver sport fisherman. Finally, 392 coho salmon were harvested in the federally managed Copper River Delta subsistence fishery (Appendices A18, F5, and F6). The Copper River Delta spawning escapement index was 74,000 coho salmon (Appendix A18). The aerial survey index for this season was 37,000 fish and was within the SEG index range of 32,000 to 67,000 (Table 6; Appendix A19). The 2012 index value is at least 35,000 fish below any of the 2002 to 2006 index values, and is comparable to index values from 2009, 2010, and 2011 when delta coho salmon runs were depressed (Appendix A20).

The coho salmon commercial harvest of 130,000 was 53.8% below the projected harvest of 282,000 fish (Appendix A10). As is typical in this fishery, estimation of coho salmon escapement was hampered by frequent storms and poor visibility in major index streams. Rough seas and inclement weather likely had a negative impact on harvest levels of coho salmon.

The transition to coho salmon management typically takes place in early August. During years when aerial survey indices are below weekly escapement targets, commercial fishing opportunity

is reduced to one period per week or less. In 2012 aerial survey indices were below anticipated ranges early in the season (Appendix A19).

The coho salmon season officially began at 7:00 a.m. on Thursday, August 16 during statistical week 34 with a 24-hour period (Appendix A6). An aerial survey flown on August 14 produced a count of 1,330 coho salmon in index streams, which was below the target range for statistical week 32 of 2,025–4,240 fish (Appendix A19). Harvest from the Thursday, August 16 fishing period was 6,390 coho salmon and 50 permit holders reported deliveries (Appendix A5). An aerial survey flown under good observational conditions on Tuesday, August 14 documented 14,200 coho salmon in index streams (Appendix A19). This survey index count was above the upper escapement target for this date. The second period on August 20 resulted in 14,700 coho salmon delivered by 139 permit holders. Given the increase in participation and decrease in catch per unit effort, one fishing period per week continued with a third 24-hour fishing period on Monday, August 27. During this period 25,900 coho salmon were harvested by 172 permit holders (Appendix A5). An aerial survey flown on Wednesday, August 29 documented 20,100 coho salmon in index streams (Appendix A19). This was within the escapement target range for this date. Consequently, two 24-hour periods were allowed in statistical week 36 on Monday, September 3 and Thursday, September 6. Harvest from these periods was 13,900 (September 3) and 24,300 (September 6) coho salmon. During the Monday period 84 permit holders reported deliveries. Participation in the fishery increased by nearly 40 permits during the Thursday period (Appendix A5).

An aerial survey was flown on Monday, September 10 under good observational conditions resulting in an index of 31,400 (Appendix A19). Consequently, 2 fishing periods were allowed during the week of Monday, September 10. The 24-hour periods on Monday, September 10 and Thursday, September 13, resulted in a harvest of 33,500 coho salmon. Participation remained comparable to the previous period with 120 permit holders participating in the Monday fishing period, and 104 permit holders in the Thursday fishing period. Stormy conditions persisted in the Cordova area for the next several weeks having a negative impact on harvest and participation for the remainder of the season. Harvest for the week of September 16–22 was 5,790 coho salmon with 37 permit holders reporting deliveries in the first period and 1 permit holder in the second period. There were no further deliveries in the remaining 3 fishing periods of the season (Appendices A5 and A6). An aerial survey flown on October 12 documented levels of coho salmon in index streams above the escapement range for statistical week 41 (Appendix A19).

Peak fishing effort for the coho salmon season was during the 24-hour period that occurred on Monday, August 27 when 172 permit holders delivered 25,900 coho salmon. Peak harvest also occurred during this period. The total harvest of 130,000 coho salmon for the 2012 season was less than half the harvest projection of 282,000 fish (Appendices A5 and A10). The majority of the coho salmon harvested commercially, 50.4%, were 3-year-olds from brood year 2009, and 4-year-old (49.2%) and 5-year-old (0.35%) fish contributed most of the remaining fish. An estimated 59.6% of the coho salmon harvested were males (Appendix A17).

BERING RIVER DISTRICT

Preseason Outlook and Harvest Strategy

Historically this district has opened in early June to sockeye salmon harvest and is managed concurrently with the Copper River District. Given that the minimum sockeye salmon SEG of 20,000 (as measured by aerial survey) was not met between 2006 and 2010, ADF&G announced

at the preseason fishermen's meeting that the district would not be open until escapement levels were within the anticipated weekly escapement index.

Sockeye Salmon Season Summary

The first aerial survey of the Bering River District was flown during the week ending June 16 and a second flight was flown the next week. Peak index counts from these surveys were 0 and 16,000 sockeye salmon, respectively. The first survey was below the anticipated index range (3,250–7,150 sockeye salmon). The second survey was the peak index count for the season and was above the upper end of the anticipated escapement index range for that week (4,050–8,900 sockeye salmon; Appendix A22). As a result of this early season peak count, ADF&G elected to open the Bering River District concurrent with the Copper River District on June 25. Weekly surveys were below the lower end of the weekly escapement index targets through early August, but poor visibility due to high precipitation and windy conditions likely contributed to the low survey results. As a result of the early season peak count and lack of fishing effort, ADF&G elected to keep the Bering River District open to commercial harvest on a twice weekly basis until the start of coho salmon season in mid-August. No commercial harvest was reported in the Bering River District until the coho salmon season was initiated (Appendix A23).

Coho Salmon Season Summary

Weather conditions allowed for sporadic aerial surveys of coho salmon index streams in the Bering River District. For the fifth year in a row, the Bering River District coho salmon run was late, but final escapement was within the SEG range for the district (Appendix A25). Commercial harvest was the sixth largest in the last 10 years, and about 10,000 less than the recent 10-year average (Appendix A21).

In 2012 the first opening of the Bering River District coho salmon fishery was on August 16 during statistical week 33 and harvest was confidential (Appendix A24). An aerial survey flown on August 14 documented numbers of coho salmon that were well below runs in recent years (Appendix A25). The low coho salmon abundance apparent in this survey triggered a one period per week management strategy that has historically been shown to allow for coho salmon escapement while maintaining limited fishing effort. There were 2 additional 24-hour openings in the 2 remaining weeks of August, occurring on August 20 and 27, during which commercial fishing effort ranged from 2 boats to 18 boats. This coincided with the historical trend of increasing fishing effort into late August and early September. Harvest from the August 20 fishing period was confidential and harvest from the August 27 fishing period was 5,610 coho salmon (Appendix A23).

An aerial survey flown on August 29 documented 5,670 coho salmon in Bering River and Controller Bay index streams. This compares to an anticipated index target range of 8,732–22,165 coho salmon (Appendix A25). Water conditions were poor during this survey, likely resulting in reduced counts in numerous systems. Also, the pattern in commercial harvest indicated that there was the potential for a late run. Consequently, two 24-hour periods were allowed in statistical week 36, the first period on Monday, September 3 and the second period on Thursday, September 6. Harvests from these periods were 7,150 (September 3) and 9,310 (September 6) coho salmon. During both periods, 20 permit holders reported deliveries (Appendix A23). An aerial survey on Monday, September 10 under good observational conditions produced an index count of 15,000 coho salmon. This was within the weekly anticipated index target range (6,970–17,700) for statistical week 37 (September 9–15)

(Appendix A25). Harvest from the two 24-hour periods in this statistical week was 23,200 coho salmon and 78 permits reported deliveries. The harvest from the 24-hour period that started on September 17 was confidential. There were 6 additional commercial fishing periods held over the next 4 weeks and no deliveries were reported (Appendix A23). The final aerial survey of the season was flown on October 12 and 9,700 coho salmon were counted, above the weekly anticipated index target of 1,040–2,650 fish for statistical week 41 (October 7–13; Appendix A25). The Bering River District closed for the 2012 season on October 10 (Appendix A23).

Peak fishing effort and harvest was during statistical week 37 (September 9–15) when 78 boats harvested 23,200 coho salmon (Appendix A24). The total harvest of 46,200 coho salmon was below the previous 10-year harvest average of 55,900 fish (Appendix A21). The coho salmon SEG was achieved with a peak escapement index count of 15,600 fish. This was below the previous 10-year average of 30,700 and within the SEG range of 13,000 to 33,000 fish for the Bering River District (Table 6; Appendices A20 and A25).

COGHILL DISTRICT

The Coghill District is located in northwestern PWS and is approximately 45 miles in length from north to south. This district was created to manage harvests of pink, chum, and sockeye salmon returning to Port Wells and the Esther Island area. The majority of commercial fisheries in the Coghill District target wild Coghill Lake sockeye salmon and hatchery salmon from WNH. The hatchery is located on Lake Bay at the southern end of Esther Island and was built by PWSAC in 1985. WNH annually produces adult runs of chum (~3 million), pink (~9.5 million), and coho (~250,000) salmon.

The Coghill District is open for the harvest of chum, sockeye, pink, and coho salmon to drift gillnet permit holders and opens to purse seine permit holders beginning on July 21. The district closes to purse seine fishing when the majority of harvestable surplus is no longer pink salmon. The exception to this is described in the *Prince William Sound Management and Salmon Enhancement Allocation Plan* (5 AAC 24.370 (h)) as follows: "Purse seine permit holders may operate in the Esther Subdistrict when the previous 5-year exvessel value of their harvest of common property enhanced stocks is 45% or less of the overall drift gillnet and purse seine harvests combined." During these seasons, the drift gillnet fleet will not have access to the Esther Subdistrict until July 21.

Preseason Outlook and Harvest Strategy

The 2012 forecast of the sockeye salmon run to Coghill Lake was 321,000 fish. Meeting the midpoint of the SEG range of 20,000–60,000 sockeye salmon (Table 6; Fair et al. 2011) would leave 291,000 fish for the common property fishery (Table 7). The enhanced chum salmon run to WNH was forecast to be 1.04 million fish. PWSAC's projection for cost recovery and broodstock requirements was approximately 380,000 fish, leaving 660,000 chum salmon for the CCPF. The projected run of pink salmon to the WNH facility was 6.30 million fish. Of those, PWSAC's projection for cost recovery and broodstock requirements was approximately 1.08 million fish, leaving 5.22 million pink salmon available to the CCPF. An estimated run of 245,000 coho salmon were projected for WNH. A total of 2,700 were anticipated to be harvested for broodstock and the remaining 242,000 fish would be available to the CCPF (PWSAC 2012a).

The 5-year rolling average allocation calculation used to guide 2012 fisheries management was 57.6% purse seine, 42.4% drift gillnet, and 4.1% set gillnet. As a result, the drift gillnet fleet had

exclusive access to the Port Chalmers Subdistrict from June 1 to July 30 in 2012, and the set gillnet fleet was not limited to 36 hours per week after July 10, 2012.

PWSAC, in consultation with ADF&G, elected to initiate pink and chum salmon cost recovery harvest before allowing CCPF openings in hatchery subdistricts and terminal areas. CCPF openings in hatchery subdistricts and terminal areas during cost recovery were anticipated to occur on a regular basis once initiated, with frequency, duration, and open area dependent on run entry and cost recovery progress.

Season Summary

Early-season management of the Coghill District is largely based on Coghill Lake wild sockeye salmon escapement. Coghill River escapement was assessed from June 5 to July 27. A counting tower was utilized for the first few weeks due to ice conditions and high water; the weir was used to monitor escapement for the remainder of the season. Total sockeye salmon escapement was 72,000 fish, above the upper SEG bound of 60,000 fish (Table 6 and Appendices B1–B3). The abundant escapement allowed for extended fishing periods during much of the season.

The total CCPF purse seine and drift gillnet combined sockeye salmon harvest for the Coghill District was 436,000 (87.9% drift gillnet) fish; the total CCPF harvests for chum, pink, and coho salmon were 2.46 million (91.9% drift gillnet), 3.43 million (32.8% drift gillnet), and 11,000 (70.3% drift gillnet), respectively (Table 1 and Appendices B4 and B5). In 2012, PWSAC reported a WNH chum salmon purse seine cost recovery harvest of 169,000 fish, a raceway cost recovery harvest of 101,000 fish and broodstock carcass sales of 168,000 fish. PWSAC also reported a pink salmon purse seine cost recovery harvest of 1.13 million fish, a raceway cost recovery harvest of 90,900 fish, and broodstock carcass sales of 153,000 fish. As part of chum salmon brood collection, 168,000 chum salmon were used to seed the hatchery, 25,400 fish were not viable or unspawned, and 3,560 fish were holding mortalities. PWSAC estimated that 3,000 fish were not harvested and remained within waters of the Special Harvest Area (SHA). As part of pink salmon brood collection, 153,000 pink salmon were used to seed the hatchery, 27,800 fish were unviable or unspawned, 6,030 fish were holding mortalities, and PWSAC estimated that 5,000 fish were not harvested and remained within waters of the SHA. PWSAC also reported harvesting 0 coho salmon for raceway cost recovery and 558 fish as part of broodstock collection (Appendix E12).

Contributions from thermally marked otoliths estimated that wild salmon contributed 81.5% (sockeye salmon), 3.01% (chum salmon), and 19.3% (pink salmon) of the CCPF harvest in the Coghill District (Appendices E9–E11). There were approximately 80,700 MBH sockeye salmon harvested in the Coghill District commercial fishery, accounting for 18.5% of the 436,000 sockeye salmon harvested (Appendix E9). Of the 2.46 million chum salmon harvested in the Coghill district by the CCPF, approximately 2.38 million (97.0%) were released at WNH, AFK, and the Port Chalmers remote release site in the Montague District (Appendix E11). Although these chum salmon had thermal marks that were intended to be specific to each release site, fish with a single mark were released at all 3 sites in 2007, but only accounted for 0.31% of the Coghill District CCPF harvest. Of the 3.43 million pink salmon harvested in this district by the CCPF, 2.56 million (74.6%) were released at WNH, 130,000 (3.80%) were released at CCH, 59,500 (1.73%) were released at SGH, and 18,400 (0.54%) were released at AFK (Appendix E10).

The total Coghill District commercial drift gillnet harvest was 383,000 sockeye, 2.26 million chum, 1.13 million pink, and 7,720 coho salmon, and 359 permit holders reported deliveries (Table 1 and Appendices B4, B6, and B8).

The Coghill District drift gillnet fishery began on May 31. A general schedule of 2 openings, 36 to 80 hours in duration, per week was established. These coincided with openings in the Copper River and Eshamy districts. Beginning June 28, the western boundary used for the Coghill District was a line from Point Pigot to Point Pakenham (Bettles Bay Subdistrict), with the purpose of limiting harvest of wild chum salmon returning to the western side of Port Wells (Appendix B4). The Bettles Bay Subdistrict was created at the December 2011 BOF meeting (5 AAC 24.200(f)(3)).

The WNH chum salmon run was stronger than anticipated throughout the season. Chum salmon cost recovery at WNH began on June 11, and to accommodate timely cost recovery harvest, there was initially no commercial gillnet fishing within the WNH Terminal Harvest Area (THA) and SHA. Beginning June 7, Esther Subdistrict was closed and fishing time was reduced in the Granite Bay Subdistrict to facilitate cost recovery. Initially, cost recovery fishing was influenced by slow daily run entry in the WNH THA and SHA, likely the result of a small age-5 chum salmon component to the run. On June 17 cost recovery was 49.4% complete, approximately 10 days behind the previous year's cost recovery timing (Appendix E12). CCPF participation and harvest in the Coghill District increased rapidly through statistical week 24 (June 10–June 16) with a cumulative harvest of 430,000 chum salmon through this statistical week (Appendix B6). Chum salmon cost recovery at WNH, meeting PWSAC's stated revenue goal for chum salmon, was finished on June 21 with the help of the largest single-day harvest (35,300 fish), more than double the daily harvest average up to this point in the season. The early season time and area restrictions in the Esther and Granite Bay subdistricts and low early season participation in the CCPF contributed to achieving the cost recovery goal in the face of a weak age-5 chum salmon run. On June 21, a portion of the Esther Subdistrict west of a line from Esther Point to Perry Point was opened to commercial fishing for 12 hours. Lower than anticipated broodstock collection was the justification for maintaining closed area in the Esther Subdistrict (Appendix B4). By June 26, PWSAC estimated that the number of fish collected for broodstock in the WNH SHA was within the anticipated range for that date, but due to apparent expanded milling behavior and collection progress continuing at anticipated levels, continued to recommend limited fishing time in the Esther and Granite Bay subdistricts (Appendix E12). Through the end of June, fishing time in the Esther and Granite Bay subdistricts was limited to between 12 and 24 hours while general district waters were open for 48 to 72 hours. (Appendix B4).

Typically, the drift gillnet fleet targets WNH chum salmon in the early season and reprioritizes in late June to include MBH and Coghill Lake sockeye salmon. In 2012, Coghill District participation stayed above 100 permits per week from the first week of June through the third week of July. Fishing time and area was extended to encompass general Coghill District waters (outside of hatchery subdistricts and terminal areas) to allow the fleet to focus effort on Coghill Lake sockeye salmon. Extended duration fishing time (48 and 72 hour fishing periods) was maintained in northern Port Wells from the start of the season through the end of the Coghill River sockeye salmon run. Despite additional fishing time and area and higher than anticipated drift gillnet fishing effort, escapement past the weir climbed and stayed above the upper end of projected daily counts starting July 4. Escapement for July 3 and 4 totaled 23,300, exceeding the lower end of the SEG range (Appendix B1). Coghill River anadromous stream closures were

suspended from July 5 to August 1 to provide more directed fishing opportunity on Coghill Lake sockeye and pink salmon. To slow escapement, purse seine gear was permitted to fish, prior to the July 21 regulatory start date, in the vicinity of Coghill River during 2 fishing periods. The first period was on July 5 and the second period was on July 12. The purse seine fleet harvested 47,400 sockeye salmon during these 2 fishing periods. By comparison, drift gillnet harvest during these 2 periods was 62,500 sockeye salmon (Appendix B4 and B5). Without the purse seine effort, additional escapement would likely have been realized.

Fish passage at Coghill River weir averaged 1,930 sockeye salmon per day between July 5 and July 27. Coghill Lake sockeye salmon showed a compressed run-timing in 2012 that started slowly and increased quickly around the historical peak (July 4) and continued to the end of the run (Appendices B1 and B2). This pattern can be contrasted with run timing in 2011, in which daily sockeye salmon escapement exceeded 3,000 fish from June 26 through July 19. Otolith contribution estimates indicate that approximately 355,000 wild and 80,700 enhanced sockeye salmon were harvested in the Coghill District in 2012 (Appendix E9).

On July 18, the WNH THA was opened to drift gillnet fishing to promote the clean-up of enhanced chum salmon excess to hatchery escapement needs. Over the next 2 days open area was expanded into the WNH SHA, first to a line at 60° 47.69’ N latitude and next to a line at 60° 47.78’ N latitude. This strategy allowed PWSAC to safely maintain fish collected for broodstock while allowing the commercial fleet to harvest surplus fish that were maturing and rapidly losing market value. During these 3 days of terminal area clean-up, 195,000 chum salmon were harvested. (Appendix B4). Starting July 21, processors quit buying drift gillnet caught fish from the hatchery terminal areas due to poor fish quality.

By regulation, on July 21, purse seine permit holders began fishing Coghill District during all open fishing periods. Chum salmon harvest was high (140,000 fish) during the first period due to an SHA clean-up fishery and declined quickly through the remainder of July, largely due to processors not buying chum salmon from the hatchery terminal areas after July 21 due to quality concerns. Pink salmon harvest in the southern portion of the district increased rapidly during late July (Appendices B6 and B7).

Coho salmon landings increased in early August, but remained low with single period harvests ranging between 23 and 1,420 fish for the remainder of the season. The last period with reported harvest started on September 6. On September 3, the harvest of pink salmon (435) fell below the harvest of coho salmon (600; Appendix B4 and B5). Consequently, on September 6, Coghill District was closed to purse seine gear for the remainder of the season. The peak drift gillnet harvest of coho salmon (2,920) in Coghill District occurred during statistical week 36 (Appendix B6). The Coghill District closed to commercial fishing on September 23 (Appendix B4).

Peak drift gillnet fishing effort occurred during the 48-hour period on June 11 when 201 permit holders harvested 10,400 sockeye and 78,700 chum salmon. Peak drift gillnet chum salmon harvest occurred during the 84-hour period on July 12–15 when 329,000 fish were landed by 185 permit holders. Peak drift gillnet sockeye salmon harvest occurred during the 60-hour period on June 28–30 when 60,800 fish were landed by 157 permit holders (Appendix B4). Overall, 383,000 sockeye salmon were harvested by 359 drift gillnet permit holders during the 2012 season. This is above the previous drift gillnet 10-year harvest average of 135,000 sockeye salmon (Appendix B8). The 2012 harvest of 2.26 million chum salmon by drift gillnet permit holders was more than double the previous 10-year average of 1.07 million chum salmon. The

2012 harvest of 7,720 coho salmon by the drift gillnet fleet was only 18.7% of the previous 10-year average harvest of 41,400 fish (Appendix B8).

UNAKWIK DISTRICT

Preseason Outlook and Harvest Strategy

The Unakwik District, located in the northern portion of Unakwik Inlet, is the smallest district in the PWS management area. Both drift gillnet and purse seine gears are allowed during all fishing periods. CCH, a pink salmon hatchery, borders the southern boundary of the district. This district was established for management of runs of sockeye salmon to Cowpen and Miners lakes. Escapement enumeration is by aerial survey; however, water is quite turbid in Miners Lake. The management strategy in this district has been adjusted in recent years, reducing period duration, to allow for uncertainty in sockeye salmon stock assessment.

Season Summary

The total 2012 Unakwik District harvest was 1,710 sockeye, 34 pink, and 150 chum salmon (Appendix B11). The 2012 sockeye salmon harvest was below the previous 10-year average of 6,600 (Appendix B12). Peak sockeye salmon harvest (941) occurred during the fishing period that started on June 21 (24-hours). Participation in this fishery is directly related to fishing success elsewhere in PWS. Robust salmon runs to WNH, MBH, and the Copper River likely contributed to the low fishing effort in Unakwik District. The Unakwik District opened for the 2012 fishing season on June 14 and followed a schedule of 2 evenly-spaced periods per week, concurrent with other districts in PWS, until the district was closed for the season on July 17 (Appendix B11).

PORT CHALMERS SUBDISTRICT

Preseason Outlook and Harvest Strategy

The Port Chalmers Subdistrict is located in the northern end of the Montague District. Since 1994, PWSAC has remote-released chum salmon at this location. PWSAC forecast a run of 504,000 chum salmon to this subdistrict in 2012 (Appendix E1).

Based on the *Prince William Sound Management and Allocation Plan* (5 AAC 24.370), the drift gillnet gear group had exclusive access to Port Chalmers from June 1 through July 30, 2012. Deep gillnets (greater than 60 meshes in depth) were not permitted in this subdistrict this year due to regulatory changes at the 2011 BOF meeting. These regulatory changes applied the same regulatory start date (the first Monday in July) for deep gear that existed in Coghill, Unakwik, and Eshamy districts.

Season Summary

The total Port Chalmers Subdistrict harvest was 325,000 chum salmon, and 54 drift gillnet permit holders reported deliveries (Appendices B13 and B14). The 2012 chum salmon harvest was below the 5-year average of 599,000 fish (Appendix B15). A total of 316,000 chum salmon (97.0%) were marked as having been released at Port Chalmers, and 5,730 (1.76%) were marked as WNH releases. The low contribution of WNH release marks, in contrast to last year's high WNH contribution to the harvest is likely due to the decreased potential for mixed marks in the harvest. Wild chum salmon harvest was 590, representing 0.181% of the total harvest (Appendix E21). Port Chalmers Subdistrict was open 7 days per week, with short breaks to facilitate

reporting. This schedule was maintained for the duration of the drift gillnet fishery. The Port Chalmers Subdistrict opened on Thursday, May 31 for an 84-hour period followed by a 60-hour period on Monday, June 4. This 2 period per week schedule was maintained for 10 weeks, which is the duration of the drift gillnet fishery in the Port Chalmers Subdistrict. Harvest and effort peaked during the July 2–4 period when 85,700 chum salmon were harvested by 26 permit holders. To minimize the harvest of wild pink salmon, harvest, effort, and otolith contributions were monitored closely starting in early July. In this way effort can be focused closer to Port Chalmers if the harvest of non-target species (pink and sockeye salmon) increases substantially. A total of 13,500 pink salmon were harvested during this drift gillnet fishery including a single period (July 26–29) peak of 7,260 fish (Appendix B13). The total pink salmon harvest was less than a fifth of the 2009 harvest and comparable to the 2010 harvest (Appendix B15). This low level of pink salmon harvest did not necessitate a reduction in fishing area in 2012.

ESHAMY DISTRICT

The Eshamy District is located in western PWS and is 15 miles in length. Prior to 2012, the outer boundary of the district was 1 mile off of the mainland shore within the districts. Based on regulatory changes at the 2011 BOF meeting, the outer boundary of the Eshamy District was modified to approximate the historical 1-mile boundary using a series of lines connecting 8 points. Both drift and set gillnet gears are allowed to fish in this district during all periods, except as described in 5 AAC 24.370(f). This is the only district in PWS where set gillnet gear is allowed to operate. This district was created to manage the gillnet harvest of sockeye salmon runs to Eshamy Lake. The Main Bay Subdistrict of the Eshamy District was created when MBH was built in 1981 by ADF&G. This subdistrict was established to allow permit holders to harvest enhanced sockeye salmon while minimizing the harvest of wild sockeye salmon returning to Eshamy Lake. This lake has a history of erratic runs, and the district remained closed for 11 of the 22 years from 1961 to 1983 due to poor escapements. ADF&G maintained a weir on the Eshamy River for over 50 years until 2012 when funding for the project was eliminated. From 1990 to present, the Main Bay Subdistrict has, at times, been the only area open in Eshamy District, due to weak wild sockeye salmon runs to Eshamy Lake.

Eshamy District is open to the 533 drift gillnet and 29 set gillnet permits in Area E. Set gillnet permit holders may operate up to 150 fathoms of gear. Up to 3 set gillnets may be operated at one time by a permit holder, provided that a single set gillnet does not exceed 100 fathoms in aggregate length in the Eshamy general district and the Main Bay Subdistrict east of the MBH THA. In the MBH THA and Alternating Gear Zone (AGZ), no single set gillnet may exceed 50 fathoms. The seaward end of set gillnets must be marked with a red keg, buoy, or cluster of floats (5 AAC 39.280(b)). Set gillnet permit holders may hold an unlimited number of sites in the Eshamy District, with each site registered with the Alaska Department of Natural Resources. Each of these sites may be outfitted with buoys, anchors, and running lines that are in place throughout the season, except within the AGZ in front of MBH (5 AAC 24.367(d)(2)), where all nets, anchors, and associated equipment are required to be removed from the fishing grounds at the end of the fishing day for this gear type.

Set gillnets may not be operated within 100 fathoms of any part of another set gillnet, except in the MBH THA, where this distance is 50 fathoms, and in the AGZ, where set gillnets may be operated without regard to the proximity of other set gillnets.

Drift gillnets may not be operated in the Eshamy general district within 60 fathoms of a set gillnet, except in the zone outside of the offshore end of a set gillnet where the minimum distance is not specified. In the Main Bay Subdistrict, drift gillnets may not be operated within 25 fathoms of a set gillnet, except in the zone outside of the offshore end of the set gillnet where the minimum distance is not specified. The AGZ is only open to either set gillnet or drift gillnet gear during any one fishing period.

Fishing time in the Eshamy District is generally assigned equally to both gear types within a given fishing period with 2 exceptions.

- In the AGZ, which is located immediately offshore of the hatchery at the terminus of Main Bay, gear types are alternated between periods, with only one gear type having access to this area at a time.
- During years in which the set gillnet gear group catches 5% or more of the previous 5-year average exvessel value of the Area E total common property fishery for enhanced salmon, then beginning on July 10, the set gillnet gear group will be limited to no more than 36 hours of fishing time per week.

Preseason Outlook and Harvest Strategy

The 2012 preseason forecast of the sockeye salmon run to Eshamy Lake was 53,100 fish. Allowing for the midpoint biological escapement goal (BEG) of 20,500 would leave approximately 33,000 fish for the CCPF (Table 7). PWSAC projected the total run of enhanced sockeye salmon to MBH to be 1.19 million fish. The entire projected run was stock of Coghill Lake origin, of which 8,940 fish were required for broodstock and the remaining 1.18 million fish would be available for harvest in the common property fisheries. The run timing of Coghill Lake sockeye salmon stock to MBH was expected to be from mid-June to late July with the peak anticipated on July 4. PWSAC typically installs a barrier seine in mid-June to begin broodstock collection (PWSAC 2012a).

At the preseason fishermen's meeting in late spring it was announced that the first gillnet opening in the Crafton Island Subdistrict would occur in late May. Additionally, fishing periods starting on Thursday would continue to begin in the mornings, rather than the evenings as had been the standard prior to 2007. Similar to previous years, fishing period duration and open area would be reduced, as an alternative to omitting fishing periods.

According to the *Prince William Sound Management and Salmon Enhancement Allocation Plan* (5 AAC 24.370), the set gillnet gear group allocation is 4%, with a fishing time restriction imposed if they exceed 5% of the 5-year average value of PWSAC enhanced salmon stocks. The 2007–2011 5-year average value percentages for each gear type are 42.4% drift gillnet, 57.6% purse seine, and 4.1% set gillnet. Therefore, fishing time for the set gillnet group was not limited to 36 hours per week beginning July 10.

Season Summary

The total Eshamy District CCPF harvest was 1.28 million sockeye, 279,000 chum, 106,300 pink, and 289 coho salmon (Table 1 and Appendix C8). Of the 1.28 million sockeye salmon commercially harvested in the Eshamy District, 1.14 million (88.6%) were MBH sockeye salmon (Appendix E13). The drift gillnet fleet (355 permit holders) accounted for 988,000 sockeye salmon and the set gillnet fleet (29 permit holders) harvested the remaining

295,000 (Table 1 and Appendix C4 and C5). PWSAC did not conduct cost recovery on MBH sockeye salmon and had a broodstock harvest of 13,700 fish (Appendix E16).

Sockeye salmon began arriving at the MBH in late May and a schedule of 2 extended fishing periods per week was initiated beginning May 31. The Eshamy District, excluding the AGZ, was initially opened to commercial fishing to allow the fleet to focus on a strong run to MBH while run timing overlap with Eshamy River wild sockeye salmon was minimal. On June 28 the AGZ was opened to commercial fishing. In 2012, the set gillnet gear group fished the first period in the AGZ. Although set gillnet participation remained steady for much of the season, drift gillnet participation fluctuated as permit holders moved among the Coghill, Montague, and Copper River districts (Appendices C4 and C5).

The Eshamy River weir did not operate in 2012. Escapement was monitored through a pilot video monitoring project at the outlet of Eshamy Lake. Escapement counts for the season were incomplete due to observation condition and power source issues and could not be used to accurately assess salmon passage into Eshamy Lake. The solar power source for the project did not provide adequate power for the video recorder and camera for extended periods of time throughout the summer due to overcast weather conditions. Additionally, fish passage could not be monitored at night and a contrasting substrate was only used for part of the season. The video monitoring project is being redesigned for 2013, incorporating above water and in-water assessment, lower power consumption equipment, at-night monitoring, and relocation of solar panels, all of which should improve the consistency of escapement estimates.

The peak Eshamy District sockeye salmon harvest of 387,000 fish occurred during statistical week 26; peak chum salmon harvest of 68,500 occurred during statistical week 27; and peak pink salmon harvest of 35,600 occurred during statistical week 28 (Appendices C6 and C7). During the first 3 weeks of June, the sockeye and chum salmon wild stock harvest proportions remained low, averaging 8.18% and 0.42% wild, respectively. Although wild sockeye salmon harvest proportions remained stable for the remainder of June and early July, wild chum salmon harvest proportions increased, averaging 5.79% from June 21 to July 14 (Appendices E13 and E15). Pink salmon harvest steadily increased during this same time period. The pink salmon harvest in the Eshamy District is normally predominantly wild stocks and most fish are assumed to be returning to streams outside of the district. The majority of wild chum salmon are also assumed to be returning to streams outside of the district. Considering the increases in wild chum salmon harvest and overall pink salmon harvest, fishing time was reduced during the second week of July to allow larger time windows for these fish to move through the district. As sockeye and chum salmon harvests decreased from July 5 to August 14, pink salmon harvest remained somewhat steady during fishing periods with openings outside the AGZ, with an average of 7,490 fish harvested per period (13 periods total; Appendices C4 and C5). During the month of July the wild pink salmon proportion in the Eshamy District averaged 78.3%, which was less than recent year's wild stock proportions and likely due to area and time restrictions implemented to focus harvest on salmon runs within the district (Appendix E14). Fishing area included the Crafton Island Subdistrict (outer portion of the district) until July 19 when the fleet was moved into the Main Bay Subdistrict in an effort to focus fishing effort on remaining enhanced sockeye salmon and limit Eshamy River and Gumboot Lake wild sockeye salmon harvest. The AGZ openings on August 4 and 5 included area inside of the normal barrier seine placement to facilitate a clean-up of sockeye salmon staged in front of the hatchery. Additionally, due to uncertainty in escapement at Eshamy River, openings in Eshamy Bay were

restricted to one 12-hour period per week starting August 14 (Appendices C4 and C5). Low sockeye salmon harvest in the Eshamy Bay fishery did not support expanded fishing opportunity on the Eshamy Lake sockeye salmon stock.

Overall 988,000 sockeye, 255,000 chum, and 89,000 pink salmon were harvested by 355 drift gillnet permit holders during the 2012 season (Appendix C8 and Table 1). The previous 10-year averages of 532,000 sockeye 143,000 chum, and 86,000 pink salmon are lower than this year's drift gillnet harvest totals. A total of 29 set gillnet permit holders harvested 295,000 sockeye, 24,400 chum, and 17,300 pink salmon. This sockeye salmon harvest total is greater than the previous 10-year average of 189,000 sockeye salmon, but the chum and pink salmon harvest totals are lower than the previous 10-year averages of 28,800 chum and 36,500 pink salmon (Appendix C8).

Preliminary contribution estimates show that wild sockeye salmon comprised 11.4% of the 1.28 million harvested, wild chum salmon comprised 3.99% of the 279,000 harvest, and wild pink salmon comprised 73.9% of the 106,300 harvest in Eshamy District (Appendices E13–E15). Enhanced chum salmon harvested in the Eshamy District were returning to WNH, AFK, and the Port Chalmers remote release site. Although fish released at each of these sites are required to have a unique thermal mark on their otoliths, PWSAC failed to do this in 2007 when multiple marks were released from each release site.

GENERAL PURSE SEINE DISTRICTS

Preseason Outlook and Harvest Strategy

The general purse seine districts include the Eastern, Northern, Unakwik, Coghill, Northwestern, Southwestern, Montague, and Southeastern districts. The *Prince William Sound Management and Salmon Enhancement Allocation Plan* (5 AAC 24.370(e)(2)(A)) closes the Southwestern District to purse seine gear prior to July 18. This plan also closes the Coghill District to purse seine gear prior to July 21, unless superseded by the following management plans:

The *Wally Noerenberg Hatchery Management Plan* (5 AAC 24.368(f)) allows early harvest of the harvestable surplus of chum salmon to prevent deterioration of fish quality.

The *Prince William Sound Management and Salmon Enhancement Allocation Plan* (5 AAC 24.370(h)(2)), which allows the purse seine fleet to fish in the Coghill District prior to July 21 if the purse seine harvest value of enhanced salmon is 45% or less of the previous 5-year average ex-vessel value of the common property enhanced salmon stocks harvested.

Beginning July 21, both purse seine and drift gillnet gear are allowed in the Coghill District. Purse seine gear is allowed in the Coghill District while the harvestable surplus by number is predominantly pink salmon. Fishing periods in all districts are established by EO.

ADF&G forecasts wild fish runs, whereas hatchery run projections are provided by PWSAC and VFDA. Run projections for species and districts without formal forecasts were based on average historical production. The 2012 PWS Area forecast CPF harvests by species, including both hatchery and wild fish, were 27,000 Chinook, 2.96 million sockeye, 713,000 coho, 30.21 million pink, and 1.41 million chum salmon (Table 7; PWSAC 2012a; VFDA 2012). Run projections are the basis for early inseason management of all districts.

The general purse seine districts are managed to achieve wild pink and chum salmon escapement goals by district and allow for the orderly harvest of surplus wild and enhanced stocks.

Escapement of pink and chum salmon is monitored throughout the season by weekly aerial surveys of 215 index streams. The escapement index is based on a geometric method used since the inception of the systematic survey program in the early 1960s. In this method, aerial observers are assumed to count without error or bias. Linear interpolations between observations are used to interpolate numbers of fish in the stream on days when no surveys are flown. All daily observations and interpolations are summed across the season. Because fish seen on day i+1 may include fish seen on day i, the sum of all daily observations and interpolations must be divided by some residence time for fish in the streams to account for duplicate observations. Currently, the residence time or stream life is assigned to each index stream based on measured stream life values from streams with similar environmental characteristics (Bue et al. 1998). Aerial survey pink and chum salmon escapement trends, compared to average historical performance, determine the area and duration of fishing periods within districts. Due to poor weather conditions in 2012, fewer aerial surveys were flown than any year since 1976. Bue et al. (1998) documented that the accuracy and precision of area under the curve estimates decreased as the interval between surveys increased.

Inseason modifications to harvest projections, season opening dates, and strategies for weekly fishing periods occur as fisheries develop and wild salmon escapement needs are met. ADF&G uses time and area to assist with prosecuting an orderly fishery while protecting wild salmon from overharvest. When wild salmon escapements are weak, hatchery subdistrict and terminal area openings are utilized to target enhanced stocks. Further, ADF&G may use SHTF markers to close wild stock terminal areas when escapements are lower than expected or as an intermediate step before initiating areawide closures.

Hatchery *Annual Management Plans* (AMPs) from VFDA and PWSAC provide guidelines to ADF&G for managing enhanced stock fisheries to achieve cost recovery and broodstock objectives. The AMPs underwent ADF&G and Regional Planning Team review on April 16, 2012, and were later signed by the commissioner of ADF&G.

Chum Salmon

The 2012 forecast for the chum salmon run to PWS was 1.99 million fish. Based on the ADF&G wild chum salmon forecast of 236,000 fish and escapement goal of 200,000, there was a potential CPF harvest of 36,000 wild chum salmon (Table 6; Table 7; PWSAC 2012a). The majority of the chum salmon run was anticipated to be from PWSAC hatchery production. PWSAC forecast a run of 1.04 million chum salmon to WNH of which 380,000 would be needed for cost recovery and broodstock, and the remaining 660,000 million fish would be available for CPF harvest. PWSAC also forecast enhanced chum salmon runs of 504,000 fish to the Port Chalmers remote release site and 210,000 fish to AFK. All Port Chalmers chum salmon were intended for harvest by the drift gillnet fleet and AFK chum salmon were intended for harvest by the purse seine fleet (PWSAC 2012a).

Pink Salmon

The 2012 pink salmon run forecast for PWS was 37.54 million fish. This estimate includes 4.40 million wild stock pink salmon, 13.55 million VFDA pink salmon, and 19.60 million PWSAC pink salmon (Tables 6 and 7; VFDA 2012; PWSAC 2012a). The hatchery forecast was based on the release of approximately 641.60 million pink salmon fry in 2011 (Appendix E3).

PWSAC's 2012 pink salmon corporate escapement goal was based on broodstock needs of approximately 949,000 fish and a revenue goal of $5.91 million. PWSAC estimated that approximately 3.44 million pink salmon (17.5%) of the projected 19.60 million pink salmon returning to PWSAC hatcheries would be required for cost recovery and broodstock, and the remaining 16.17 million PWSAC fish would be available for CPF harvest (PWSAC 2012a). The 2012 VFDA pink salmon sales harvest revenue goal was $3.55 million as outlined in the VFDA FY-2013 Income and Expense Statement in the 2012 SGH AMP. VFDA estimated that approximately 2.71 million pink salmon (20.0%) of the projected 13.55 million pink salmon returning to SGH would be required for cost recovery and broodstock, and the remaining 10.83 million VFDA fish would be available for CPF (Table 7; VFDA 2012). After an escapement of 1.16 million wild pink salmon, 3.24 million wild pink salmon were projected for CPF harvest (Tables 6 and 7).

Coho Salmon

PWSAC forecast a run of 264,000 enhanced coho salmon to their release sites in 2012, including 245,000 fish to WNH and 19,000 fish to remote release sites. Approximately 2,700 fish were required for broodstock at WNH, leaving 261,000 fish for CPF harvest. When the harvestable surplus shifts to coho salmon, on average during the first week of September, the drift gillnet fleet has exclusive access to the Coghill District (PWSAC 2012a).

The 2012 run of coho salmon to SGH was forecast to be 129,000 fish and 1,000 salmon would be needed for broodstock. Port Valdez was anticipated to be closed to CCPF purse seine fishing inside of a line from Entrance Point to Potato Point beginning on August 15. Purse seine fishing in Port Valdez was expected to resume the day after Labor Day, September 4, to target surplus SGH coho salmon (VFDA 2012).

Chum Salmon Season Summary

Out of the total PWS CCPF harvest of 3.83 million chum salmon, the purse seine fleet harvested 504,000 fish in 2012 (Table 1). In 2012, PWSAC reported a harvest of approximately 438,000 chum salmon for cost recovery and broodstock (Appendix E12; PWSAC 2012b).

Aerial surveys to assess wild chum salmon escapements in the Eastern and Northern districts began in mid-June. Surveys were conducted in other PWS districts starting in early July. High pink salmon densities observed during aerial surveys made counting chum salmon difficult. The 2012 PWS wild stock chum salmon escapement index of 114,000 fish in districts with SEGs is greater than the PWS SEG lower bound of 91,000 fish (Appendix D4).Wild stock pink salmon escapement indices in 2012 supported openings outside of hatchery subdistricts during late July, August, and early September. Purse seine fishing effort was focused on relatively large hatchery pink salmon runs for much of the 2012 season, thereby minimizing the effort on wild chum salmon during most openings outside hatchery subdistricts.

Pink Salmon Season Summary

The 2012 commercial harvest of 27.59 million pink salmon in PWS was the 15th highest since 1971 (Appendix D2). According to otolith contribution estimates, VFDA and PWSAC contributed 34.0% and 41.4%, respectively, to the overall PWS pink salmon CCPF harvest in 2012 (Appendices D2 and E3). Pink salmon harvest by gear type was 22.80 million by purse seine, 17,300 by set gillnet, 1.23 million by drift gillnet, and 3.53 million for hatchery harvests (Table 1). VFDA cost recovery and broodstock harvest of 1.37 million fish was approximately

12.8% of the total pink salmon run of 10.72 million fish to SGH in 2012 (Appendices E1 and E20). PWSAC cost recovery and broodstock harvest of 2.16 million fish was approximately 15.8% of the total pink salmon run of 13.68 million fish to PWSAC hatcheries in 2012 (Appendices E1, E12, E24, and E27). Fishery participation increased from 183 commercial purse seine permit holders reporting harvest in 2011 to 224 in 2012 (Table 1; Botz et al. 2013).

Aerial surveys in PWS started in mid-June and were flown into mid-September to ensure that the broad range in pink and chum salmon run timing was represented in the escapement index. Wild stock pink salmon escapement indices in 2012 supported openings outside of hatchery subdistricts during late July, August, and early September. The 2012 PWS wild stock pink salmon escapement index of 1.13 million fish was within the SEG range of 793,000 to 1.70 million fish (Appendix D4).

Eastern District Summary

The 2012 VFDA SGH pink salmon forecast was 13.55 million fish, based on a 6.09% marine survival applied to the 2011 release of 222.60 million fry. VFDA anticipated utilizing 346,000 pink salmon for broodstock and 2.37 million pink salmon for cost recovery, leaving 10.83 million pink salmon for CPF harvest (VFDA 2012).

ADF&G first observed pink and chum salmon returning to streams in the Eastern District in late June. Eastern District wild pink and chum salmon escapement indices were less than anticipated levels through mid-July, and were greater than anticipated levels by the end of July. The Eastern District pink salmon escapement index of 302,000 fish is within the district's even-year SEG range of 250,000 to 580,000 fish. The Eastern District chum salmon escapement index of 62,000 fish is greater than the district's SEG lower bound of 50,000 fish (Appendix D4).

VFDA pink salmon cost recovery harvests were conducted throughout Port Valdez in 2012. The CCPF in Port Valdez and a portion of Valdez Arm opened on July 4 when approximately 41% of VFDA's cost recovery was completed (Appendices E19 and E20). The 14-hour period on July 4 resulted in a harvest of 658,000 pink salmon. A second period in Port Valdez and a portion of Valdez Arm occurred on July 8 when approximately 83% of VFDA's cost recovery was complete (Appendices E19 and E20). From July 8 to 12, CCPF periods alternated with VFDA cost recovery fishing on an every other day basis, resulting in a commercial purse seine harvest of 3.36 million pink salmon for the July 8, 10, and 12 periods. VFDA completed their 2012 cost recovery fishing operations on July 11. The Eastern District commercial purse seine fishery in Port Valdez was closed on July 13 to aid SGH broodstock collection. Waters of Port Valdez were open to daily 14-hour fishing periods from July 14 to 24, resulting in a CCPF harvest of 5.60 million pink salmon during these fishing periods. Based on broodstock collection remaining below VFDA's anticipated numbers, the final 2012 CCPF targeting VFDA enhanced pink salmon in Port Valdez took place on July 24 (Appendix E19).

Wild pink salmon escapement indices supported expanded fishing area in general district waters of the Eastern District beginning on July 28. On July 28 and August 1, purse seine CCPF periods took place in Eastern District waters and in the Southeastern District, attracting most of the 168 and 167 permits actively fishing in PWS during these 2 periods (Appendices D1 and D12). A total of 735,000 pink salmon were harvested in the Eastern District during these 2 fishing periods, 97.9% of which were wild fish (Appendix E19). Eastern District CCPF periods after August 1 were scheduled concurrent with general district openings elsewhere in PWS. Fishing opportunity was provided in the Eastern District on an every-other-day basis from August 4 until

August 26, after which daily fishing opportunity was provided in Eastern District waters outside of Port Valdez for the remainder of the season (Appendix E19).

Port Valdez was opened for a series of CCPF periods targeting potential surplus SGH coho salmon starting on September 4, 2012. By the first week of September, it was apparent that the 2012 SGH coho salmon run was less than forecast, and VFDA expressed concern that allowing the fleet into Port Valdez near SGH could jeopardize coho salmon broodstock collection. Accordingly, ADF&G provided a closed area buffer around SGH to protect coho broodstock. No coho salmon were harvested by the purse seine fleet during these CCPF periods. VFDA utilized a total of 2,680 coho salmon during its egg-take operations in 2012, and the SGH coho salmon egg-take goal was reached on October 29 (Appendix E20). There was no commercial purse seine fishing effort in the Eastern District beyond September 1, and the district closed to commercial fishing on September 19 (Appendix E19).

There were a total of 50 Eastern District CCPF fishing periods in 2012, and 216 purse seine permit holders reported deliveries (Appendix D12; Table 1). The Eastern District CCPF harvest of 10.60 million pink salmon was composed of 86.8% VFDA fish, 0.20% PWSAC fish, and 13.0% wild fish (Appendices D3 and E19). The 2012 PWS total run estimate of 10.72 million VFDA-produced pink salmon was 20.9% below VFDA's preseason forecast of 13.55 million fish (Appendix E1; Table 6). Otolith contribution estimates indicate that VFDA pink salmon were harvested in the CCPF outside of the Eastern District, including 59,500 in the Coghill District, 56,100 in the Southwestern District, and 27,800 in the Eshamy District (Appendices E10, E14, and E26). The 2012 Eastern District CCPF harvest was 10.60 million pink, 102,000 chum, 11,900 sockeye, 8,210 coho, and 41 Chinook salmon (Table 1).

Northern District Summary

Northern District wild pink salmon escapement indices were greater than anticipated levels by the first week of August, although poor weather limited aerial surveys in the Northern District beyond August 17. Northern District wild chum salmon escapement indices were less than anticipated levels for the entirety of the season. The Northern District pink salmon escapement index of 107,000 fish is less than the district's even-year SEG range of 140,000 to 210,000 fish. The Northern District chum salmon escapement index of 14,700 fish is less than the district's SEG lower bound of 20,000 fish (Appendix D4).

The 2012 estimated total run of 3.92 million CCH enhanced pink salmon was 31.2% below the PWSAC preseason forecast run of 5.70 million fish (Appendix E1; PWSAC 2012a). Weak run entry of CCH enhanced pink salmon limited fishing effort in Unakwik Inlet hatchery subdistricts and terminal areas in 2012. PWSAC's anticipated cost recovery pink salmon harvest at CCH in 2012 was 723,000 fish (PWSAC 2012a). The CCH SHA was expanded for cost recovery harvest upon PWSAC's request to expedite cost recovery and allow for a timely CCPF during early run entry. However, due to weak pink salmon run entry to CCH, along with higher and more consistent cost recovery harvest at WNH and AFK, PWSAC cost recovery fishing effort shifted to WNH and AFK and no purse seine cost recovery harvest occurred at CCH in 2012 (PWSAC 2012a). PWSAC reported a flood event at CCH from September 1 through 5 that resulted in the loss of half of the hatchery's accumulated escapement (PWSAC 2012c). PWSAC's 2012 broodstock utilization of approximately 181,000 fish at CCH was 49.3% below the broodstock goal of 357,000 fish (Appendix E24). The pink salmon egg-take goal of 187 million eggs was not met at CCH in 2012 (PWSAC 2012b).

The 2012 Northern District commercial fishing season started with a 14-hour CCPF on July 22 in the waters of Hidden Bay to target a potential buildup of WNH enhanced chum salmon. Hatchery subdistricts in the Northern District were opened to the CCPF at PWSAC's recommendation for 3 days of consecutive fishing beginning on August 4, at which time 100% of PWSAC's aggregate cost recovery goal had been completed (Appendix D12). A total of 2.16 million pink salmon were harvested in the Northern District during these 3 CCPF periods (Appendix E23). Based on results from an aerial survey flown on August 3, wild stock pink salmon escapement indices supported broad area CCPF fishing opportunity in the Northern District. CCPF fishing periods took place every other day from August 8 through 12 in the Northern District, with some area exclusions implemented in the vicinity of CCH to allow for the escapement and protection of broodstock fish, and with waters behind SHTF markers closed to protect wild salmon escapement. A total of 940,000 pink salmon were harvested in the Northern District during these 3 CCPF periods (Appendix E23). Based on results from an aerial survey flown on August 11, wild stock pink salmon escapement indices supported continued broad area fishing opportunity in the Northern District. CCPF fishing periods continued from August 14 through 24 on an every other day fishing schedule in the Northern District, with some area exclusions implemented in the vicinity of CCH to allow for the escapement and protection of broodstock fish. A total of 534,000 pink salmon were harvested in the Northern District during these 6 CCPF periods (Appendix E23). PWS purse seine fishery participation declined from 122 permit holders reporting harvest on August 20, to 50 permit holders reporting harvest on August 24. Daily 12-hour fishing periods were scheduled in the Northern District starting on August 26. There was no commercial purse seine fishing effort in the Northern District beyond August 28, and the district closed to commercial fishing on September 19 (Appendix D12).

The 2012 Northern District CCPF harvest was 3.68 million pink, 2,150 chum, 534 sockeye, 502 coho, and 1 Chinook salmon (Table 1). The Northern District 2012 pink salmon harvest was composed of 73.1% CCH fish, 16.7% WNH fish, 9.71% wild fish, and 0.45% AFK fish (Appendix E23). The Northern District was open for 33 CCPF periods in 2012 with a total of 171 purse seine permits reporting harvest (Appendix D12; Table 1). This fishery had a maximum single period harvest of 1.09 million pink salmon on August 4 (Appendix E23). Otolith contribution estimates indicate that CCH pink salmon were harvested in the CCPF outside of the Northern District, including 869,000 in the Southwestern District, 130,000 in the Coghill District, 71,700 in the Montague District, and 5,400 in the Eastern District (Appendices E10, E19, E22, and E26).

Coghill District Summary

Coghill District wild pink and chum salmon escapement indices were greater than anticipated levels starting in early August. The Coghill District pink salmon escapement index of 173,000 fish is greater than the district's even-year SEG range of 60,000 to 150,000 fish (Appendix D4). The Coghill District escapement index of 10,300 chum salmon is greater than the district's SEG lower bound of 8,000 fish (Appendix D4).

PWSAC's 2012 forecast for pink salmon returning to WNH was 6.30 million fish. PWSAC's 2012 corporate pink salmon escapement requirements for WNH included a broodstock goal of 283,000 fish and a cost recovery goal of 799,000 fish. The preseason forecast for CPF harvest of WNH pink salmon was 5.22 million fish (PWSAC 2012a).

Despite liberal fishing time and area, and higher than anticipated drift gillnet fishing effort, sockeye salmon escapement at the Coghill River weir was above the upper end of the river's anticipated cumulative escapement count by July 3. Sockeye salmon escapement on July 3 and 4 totaled 23,300 fish (Appendix B1). Coghill River anadromous stream closures were suspended from July 5 to August 1 to provide more directed fishing opportunity on Coghill Lake sockeye salmon. To further slow sockeye salmon escapement, purse seine gear was permitted to fish, prior to the district's July 21 regulatory start date, in the vicinity of Coghill River during 2 fishing periods on July 5 and 12. The purse seine fleet harvested 47,400 sockeye salmon during these 2 fishing periods (Appendix B5). Without this purse seine effort, additional sockeye escapement would likely have been observed at the weir. Please refer to the Coghill District (gillnet) Season Summary section of this document for further description of 2012 Coghill River escapement observations and related fishery management actions.

By regulation, management for pink salmon returning to WNH began on July 21 in 2012. PWSAC recommended CCPF openings for a series of periods in Coghill District hatchery subdistricts starting on July 21, 23, 26, and 28. Purse seine harvest during these 4 periods included 571,000 pink and 189,000 chum salmon. PWSAC recommended against CCPF openings in Coghill District hatchery subdistricts after July 30 to allow for the commencement of pink salmon cost recovery fishing operations at WNH. A subsequent purse seine CCPF in waters north of Point Pakenham on August 1 resulted in the harvest of 8,100 pink, 242 chum and 19 sockeye salmon (Appendix B5).

PWSAC's 2012 pink salmon cost recovery fishing at WNH started on July 30 and was completed on August 3. The traditional purse seine cost recovery harvest of 1.13 million pink salmon at WNH was 1.42 times PWSAC's preseason goal of 799,000 fish. This was due to weaker than anticipated pink salmon returns to CCH and AFK, thereby leading to a greater proportion of PWSAC pink salmon cost recovery harvests at WNH. PWSAC's 2012 broodstock utilization of approximately 273,000 fish at WNH was 3.57% below the broodstock goal of 283,000 fish. An additional 90,900 pink salmon were harvested at WNH for cost recovery in 2012, including those harvested via the WNH fishway and during roe recovery operations (Appendix E12; PWSAC 2012a). The pink salmon egg-take goal of 148 million eggs was met at WNH in 2012 (PWSAC 2012b).

Upon completion of its pink salmon cost recovery operations at WNH, PWSAC recommended 3 days of consecutive fishing in Coghill District hatchery subdistricts beginning on August 4. A total of 722,000 pink salmon were harvested by the purse seine fleet in the Coghill District during these 3 CCPF periods (Appendix B5). CCPF fishing periods continued from August 8 through 26 on an every other day fishing schedule, with some area exclusions implemented in the vicinity of WNH to allow for the escapement and protection of broodstock fish. Daily 12-hour fishing periods were scheduled in the Coghill District starting on August 26. There was no commercial purse seine fishing effort in the Coghill District beyond September 3, and the district closed to commercial purse seine fishing on September 5 (Appendix D12).

The WNH enhanced pink salmon run of 5.70 million fish was 90.4% of PWSAC's preseason projection (Appendix E1; PWSAC 2012a). There were 30 Coghill District purse seine CCPF periods with a total of 136 commercial purse seine permit holders reporting harvest in 2012 (Appendix B5; Table 1). Peak Coghill District purse seine pink salmon harvest in 2012 occurred on August 4, with 586,000 pink salmon harvested by 62 permit holders (Appendix B5). The 2012 Coghill District purse seine CCPF harvest was 2.30 million pink, 199,000 chum, 52,900

sockeye, 3,270 coho, and 15 Chinook salmon (Table 1). The Coghill District 2012 pink salmon harvest was composed of 74.6% WNH fish, 19.3% wild fish, 3.80% CCH fish, 1.73% SGH fish, and 0.54% AFK fish (Appendix E10). Otolith contribution estimates indicate that WNH pink salmon were harvested in the CCPF outside of the Coghill District, including 1.20 million in the Southwestern District, 614,000 in the Northern District, and 54,100 in the Montague District (Appendices E22, E23, and E26).

Northwestern District Summary

Northwestern District wild pink salmon escapement indices were greater than anticipated levels starting in early August. Northwestern District wild chum salmon escapement indices were less than anticipated levels for the entirety of the season. The Northwestern District pink salmon escapement index of 118,000 fish is within the district's even-year SEG range of 70,000 to 140,000 fish. The Northwestern District escapement index of 7,070 chum salmon is greater than the district's SEG lower bound of 5,000 fish (Appendix D4).

The Northwestern District was open to the CCPF for 31 periods with 11 commercial purse seine permits reporting harvest in 2012 (Appendix D12; Table 1). The 2012 Northwestern District purse seine CCPF harvest was 87,000 pink, 37 chum, 58 sockeye, and 28 coho salmon (Table 1). The 2012 Northwestern District pink salmon harvest was the second largest in the district since 1990 (Appendix D3). Competing enhanced stock fisheries with higher potential yield in the Northern, Coghill, and Southwestern districts, attract fishing effort away from the Northwestern District. There was no commercial purse seine fishing effort in the Northwestern District beyond August 8, and the district closed to commercial fishing on September 19 (Appendix D12).

Southwestern District Summary

Southwestern District wild pink salmon escapement indices were greater than anticipated levels by early August. The Southwestern District pink salmon escapement index of 90,200 fish is within the district's even-year SEG range of 70,000 to 160,000 fish. The Southwestern District chum salmon escapement index was 930 fish, but there is not a chum salmon escapement goal for this district (Appendix D4).

Fishing to target remote-release enhanced chum salmon at the AFK THA and SHA started on June 1, with a weekly schedule of 60- and 84-hour purse seine fishing periods until July 19 (Appendix D12). PWSAC did not harvest any enhanced chum salmon at AFK for cost recovery in 2012, instead conducting chum salmon cost recovery fishing operations at WNH. PWSAC's CCPF harvest estimate of 324,000 AFK enhanced chum salmon was 1.54 times PWSAC's preseason forecast harvest of 210,000 fish (PWSAC 2012a-b).

Fishing to target remote-release enhanced sockeye salmon at Marsha Bay started on June 14, with a weekly schedule of 60- and 84-hour purse seine fishing periods until August 1 (Appendix D12). PWSAC's preseason forecast for enhanced sockeye salmon returning to Marsha Bay was 8,000 fish (PWSAC 2012a).

Sockeye salmon made up a large component of the harvest during early season fishing in the Southwestern District. There were 82,900 sockeye salmon harvested in the Southwestern District in May, June, and July. Otolith contribution estimates indicate that 20.3% of the sockeye salmon harvested during this time frame were wild fish and the remaining fish were produced at MBH. An additional 1,710 sockeye salmon were harvested in the Southwestern District during the month of August, 93.0% of which were wild fish (Appendix E25).

PWSAC's 2012 pink salmon cost recovery fishing at AFK commenced on July 30 and were completed on August 3. The traditional purse seine cost recovery harvest of 395,000 pink salmon at AFK was 59.0% below PWSAC's preseason goal of 964,000 fish (Appendix E27; PWSAC 2012a). This was due to weaker than anticipated pink salmon returns to AFK, thereby leading to a greater proportion of PWSAC pink salmon cost recovery harvests occurring at WNH. PWSAC's 2012 broodstock utilization of approximately 280,000 fish at AFK was 9.49% below the preseason goal of 309,000 fish. An additional 95,000 pink salmon were harvested at AFK for cost recovery in 2012, including those harvested via the AFK fishway and during roe recovery operations (Appendix E27). The pink salmon egg-take goal of 162 million eggs was met at AFK in 2012 (PWSAC 2012b).

Southwestern District pink salmon harvest management in 2012 was based on aerial survey escapement data, otolith contribution estimates, test fishing, harvest rates, and terminal area run entry. Test fishing conducted by the R/V *Solstice* in late July and early August provided pink salmon harvest rate, stock composition, and sex ratio data. Fishing time and area was initially limited in the hatchery subdistricts and general district waters to ensure that migration corridors through Montague, Latouche, Elrington, Prince of Wales, Bainbridge, and Knight Island passages remained open for wild stock salmon bound for northern systems (e.g., Eshamy Lake sockeye and southern, northern, and western PWS wild chum and pink salmon). However, area and time were extended once wild stock pink, chum, and sockeye salmon escapements were above anticipated levels for most PWS systems.

Upon completion of its pink salmon cost recovery operations at AFK, PWSAC recommended 3 days of consecutive fishing in Southwestern District hatchery subdistricts beginning on August 4. A total of 1.43 million pink salmon were harvested by the purse seine fleet in the Southwestern District during these 3 CCPF periods (Appendix E26). CCPF fishing periods continued from August 8 through 26 on an every other day fishing schedule, with some area exclusions implemented in the vicinity of AFK to allow for the escapement and protection of broodstock fish. Daily 12-hour fishing periods were scheduled in the Southwestern District starting on August 26. There was no commercial purse seine fishing effort in the Southwestern District beyond September 8, and the district closed to commercial fishing on September 19 (Appendix D12).

The 2012 AFK enhanced pink salmon run of 4.07 million fish was 53.5% of PWSAC's preseason projection of 7.60 million fish (Appendix E1; PWSAC 2012a). The 2012 Southwestern District CCPF harvest was 5.72 million pink, 165,000 chum, 84,500 sockeye, 9,950 coho, and 94 Chinook salmon (Table 1). The Southwestern District 2012 pink salmon harvest was composed of approximately 54.6% AFK fish, 20.9% WNH fish, 15.2% CCH fish, 8.33% wild fish, and 0.98% SGH fish (Appendix E26). The Southwestern District was open for 21 CCPF periods targeting AFK enhanced chum salmon, 20 CCPF periods targeting Marsha Bay enhanced sockeye salmon, and 31 CCPF periods targeting late run pink salmon, with a total of 190 purse seine permits reporting harvest in 2012 (Appendix D12; Table 1). Otolith contribution estimates indicate that AFK pink salmon were harvested in the CCPF outside of the Southwestern District, including 48,400 in the Montague District, 18,400 in the Coghill District, 16,600 in the Northern District, and 12,200 in the Eastern District (Appendices E10, E19, E22, and E23).

Montague District Summary

Montague District wild pink salmon escapement indices were greater than anticipated levels by early August. The Montague District pink salmon escapement index of 77,800 fish is within the district's even-year SEG range of 50,000 to 140,000 fish. The Montague District chum salmon escapement index was 2,080 fish, but there is not a chum salmon escapement goal for this district (Appendix D4).

The Montague District was open to the commercial purse seine CCPF for 26 periods and 10 commercial purse seine permits reported harvest in 2012 (Appendix D12; Table 1). The 2012 Montague District commercial purse seine harvest was 187,000 pink, 280 chum, 20 sockeye, and 148 coho salmon (Table 1). The 2012 Montague District pink salmon commercial purse seine harvest was composed of approximately 35.2% CCH fish, 27.4% WNH fish, 25.6% AFK fish, and 11.7% wild fish (Appendix E22). Competing enhanced stock fisheries with higher potential yield in the Northern, Coghill, and Southwestern districts, attract fishing effort away from the Montague District. There was no commercial purse seine fishing effort in the Montague District beyond August 16, and the district closed to commercial fishing on September 19 (Appendix D12).

Southeastern District Summary

Southeastern District wild pink and chum salmon escapement indices were greater than anticipated levels starting in early August. The Southeastern District pink salmon escapement index of 258,000 fish is within the district's even-year SEG range of 150,000 to 310,000 fish. The Southeastern District chum salmon escapement index of 20,500 fish was greater than the district's SEG lower bound of 8,000 fish (Appendix D4).

Wild pink and chum salmon escapement indices supported the commencement of commercial fishing periods in the Southeastern District beginning on July 28. Initial Southeastern District CCPF periods were scheduled concurrently with openings in Eastern District waters to provide a broad distribution of opportunity for the harvest of surplus wild pink and chum salmon, and to spread out the fleet. On July 28 and August 1, purse seine CCPF periods took place in Southeastern District waters and in the Eastern District, attracting most of the 168 and 167 permits actively fishing in PWS during these 2 periods (Appendices D1 and D12). Waters of the Southeastern District were again opened to daily commercial fishing for 3 consecutive days beginning on August 4 concurrent with CCPFs throughout portions of the purse seine fishing districts in PWS (Appendix D12). CCPF fishing periods in the Southeastern District continued from August 8 through 26 on an every other day fishing schedule. Daily 12-hour fishing periods were scheduled in the Southeastern District starting on August 26. There was no commercial purse seine fishing effort in the Southeastern District beyond August 18, and the district closed to commercial fishing on September 19 (Appendix D12).

The Southeastern District was open to the commercial purse seine CCPF for 33 periods with 67 commercial purse seine permits reporting harvest in 2012 (Appendix D12; Table 1). The 2012 Southeastern District purse seine CCPF harvest was 225,000 pink, 35,600 chum, 4,600 sockeye, 219 coho, and 35 Chinook salmon (Table 1).

PRINCE WILLIAM SOUND AND COPPER RIVER SUBSISTENCE FISHERIES

The PWS Subsistence Management Area includes all waters of Alaska between the longitude of Cape Fairfield and the longitude of Cape Suckling. State of Alaska Subsistence fishing permits

are not required for marine finfish other than salmon. Herring spawn-on-kelp may be taken for subsistence purposes as described in 5 AAC 01.610(d)(1)(2); therein, herring spawn-on-kelp may be taken above water from March 15 through June 15 or harvested using dive gear only during fishing periods open for the wild herring spawn-on-kelp commercial fishery. Lingcod *Ophiodon elongatus* may be taken for subsistence purposes only from July 1 through December 31. Additionally, herring *Clupea pallasii*, smelt, rockfish *Sebastes* spp., and other groundfish may also be harvested for subsistence purposes in the PWS Area. For a detailed history of regulation governing the subsistence fisheries within the Copper River and Prince William Sound, please see Botz et al. 2013.

Lower Copper River and Prince William Sound

Prior to 1987, commercial permit holders were not permitted to hold subsistence fishing permits during the commercial salmon net fishing season in Area E. During this time period, 5 AAC 01.020 *Subsistence Fishing by Commercial Fishermen* stated that, "Commercial fishermen may retain fish for their personal use from their lawfully taken commercial catch." In 1993 this was repealed with the following regulation adopted, 5 AAC 01.021 *Retention Of Fish Taken In Commercial Fisheries*. This stated that, "People who commercial fish may retain fish for their own use from their lawfully taken commercial catch." This was repealed in 2004 with 5 AAC 39.010. *Retention of fish taken in a commercial fishery* adopted. This stated that, "A person engaged in a commercial fishery may retain finfish from lawfully taken commercial catch for that person's own use, including for the use as bait in a commercial fishery. Finfish retained under this section may not be sold or bartered." Moving this regulation from the Subsistence chapter to Chapter 39 allowed retained fish to be used as bait. In addition it eliminated conflict with 5 AAC 01.010(b) that specified that only Alaska residents may take finfish for subsistence purposes. Currently, commercial permit holders may retain fish from their commercial harvest for their own personal use and in addition (since 1987), permit holders that are Alaska residents may also participate in subsistence fisheries in the PWS area.

Subsistence fishing is allowed 7 days per week in the Copper River District from May 15 until 2 days before the opening of the commercial fishery. Boundary lines for Copper River District subsistence fishing are the same as the commercial drift gillnet fishery. Once the commercial season has commenced, subsistence fishing is allowed only during commercial fishing periods or by emergency order. Regulation stipulates that 2 days following the closure of the Copper River District to commercial salmon fishing for the season, subsistence fishing is allowed, 7 days a week, until September 30. Within the Copper River District, drift gillnets are the only legal gear and nets may have a maximum length of 50 fathoms with a maximum mesh size of 6 inches prior to July 15.

In 2012, 380 subsistence permits were issued for the Copper River District, of which 21 (5.5 %) were not returned. Of the 359 permits that were returned, 152 permit holders reported not fishing. A harvest of 572 Chinook, 2,733 sockeye, and 28 coho salmon were reported from the 217 permits that reported fishing (Appendix F1). In addition 14 subsistence permits were issued for the PWS general subsistence district, of which 12 were returned. Six (6) permit holders reported not fishing and the other 6 permit holders reported a harvest of 40 sockeye and 22 chum salmon. (Appendix F2). Overall, 415 Alaskan residences in 28 communities received permits for the PWS saltwater subsistence fisheries (see below for details of the Tatitlek and Chenega subsistence fisheries) with a total harvest of 6,105 fish (Appendix F8).

During the 2012 commercial fishing season in the Copper River District, 7,985 sockeye, 853 Chinook and 1,037 coho salmon were reported as retained for their own personal use by 378 commercial permit holders (Appendices A1, A3, A18, and F7). In PWS, 144 commercial permit holders reported retaining 2,820 sockeye, 87 Chinook, 3,580 pink and 261 coho salmon as "homepack" from their commercial harvests. Overall in Area E, 435 commercial permit holders from more than 28 Alaska communities and the lower 49 states reported retaining 18,000 salmon for "homepack" from their commercial catches (Appendices F7 and F8).

In 2005, the federal government began issuing permits allowing subsistence harvests on federal lands in PWS and the lower Copper River area. Legal gear types are dip net, rod and reel, and spear. In 2012, a total of 66 federal permits were issued; 53 permits were returned, with 64 sockeye and 392 coho salmon reported as harvested (Appendix F6).

Tatitlek and Chenega Area Subsistence Fisheries

Two subsistence areas were established in 1988 to provide opportunities for customary and traditional use of salmon by residents of the Tatitlek and Chenega villages. The Chenega area includes the entirety of the Southwestern District, as described in 5 AAC 24.200 (i), as well as a portion of the Montague District along the northwestern shore of Green Island from the westernmost tip to the northernmost tip of the island (5 AAC 01.648(a)). The Tatitlek subsistence area is located south of the Valdez Nonsubsistence Area described in 5 AAC 99.015(a)(5) and encompasses portions of the Northern and Eastern districts (5 AAC 01.648(b)). Initially, only residents of Chenega and Tatitlek were eligible for subsistence permits in their respective areas. In 1989, a court ruling qualified all residents of Alaska for a subsistence permit in both of these subsistence areas, invalidating 5 AAC 01.648(a)(7) and (b)(7) which stipulate that permits may only be issued in these villages.

Permit holders are allowed to fish in these areas from May 15, 7 days per week, until 2 days before the initial commercial fishing period in the associated commercial fishing districts. Once the commercial fishing season is established, area and time within the subsistence areas is defined by the area and time in the associated commercial fishing district. Two days after the closure of the commercial fishing season in the associated commercial fishing district, subsistence fisheries are open 7 days per week until October 31.

In 2012, 23 permits were issued for the Chenega subsistence area, of which 14 were returned. Of those returned permits, 6 reported fishing and 8 reported not fishing, with a total harvest of 603 sockeye, 20 coho, 0 pink and 77 chum salmon. In the Tatitlek area, 32 permits were issued of which 7 were returned. Of those returned permits, 6 reported fishing, with a total harvest of 728 sockeye and 75 coho salmon (Appendix F3).

UPPER COPPER RIVER

Glennallen Subdistrict Subsistence Fishery

The Glennallen Subdistrict is that portion of the main stem Copper River upstream of the McCarthy Bridge to the mouth of the Slana River. This subdistrict is open June 1 through September 30 for continuous fishing. Fish wheels and dip nets are legal gear. Participants must be Alaska residents and are allowed one permit per household per year and the permit identifies the single gear type to be used. Total annual harvest, assuming that additional salmon were requested by the permit holder, cannot exceed 200 salmon for a household of 1 and 500 salmon for a household of 2 or more. No more than 5 Chinook salmon may be taken by each dip net

permit holder. Both tips of the caudal fin must be clipped on all harvested salmon. Subsistence permits, with completed harvest information, are required to be returned to ADF&G by October 31 of each year.

In 2012, a total of 867 dip net permits and 660 fish wheel permits were issued to subsistence users in the Glennallen Subdistrict. Of these, 216 (14.1%) were not returned. A combined total of 1,920 Chinook and 68,100 sockeye salmon were reported harvested in the Glennallen Subdistrict. Comparatively, the previous 10-year average was 2,490 Chinook and 51,200 sockeye salmon for this subdistrict. Fish wheel effort has remained somewhat constant over the last 10 years, with an average number of 651 permits issued. The number of dip net permits issued has increased over the past few years. The 10-year average of 461 dip net permits is slightly more than half of the number of permits issued in 2012 (Appendix F4). Historically, sockeye salmon dominate the harvest, representing approximately 97.1% of the reported harvest, followed by Chinook and coho salmon (Appendices A1, A3, A18, and F4).

In 2002, the federal government began issuing permits allowing subsistence harvests on federal lands in the Glennallen Subdistrict. Legal types of fishing gear are dip net, fish wheel, rod and reel, and spear. In 2012, a total of 277 federal permits were issued for the Glennallen Subdistrict. Of these, 244 permits were returned (Appendix F6). A total 14,400 sockeye, 370 Chinook, and 142 coho salmon were reported harvested (Appendices A1, A3, and A18).

Batzulnetas Subsistence Fishery

In 1988, an interim subsistence fishery was provided by emergency regulation at Batzulnetas to settle the United States District Court case of John vs. Alaska. The Batzulnetas fishery, as described in 5 AAC 01.647(i), encompasses all waters from the regulatory markers near the mouth of Tanada Creek and approximately one-half mile downstream from that mouth and in Tanada Creek between ADF&G regulatory markers identifying the open waters of the creek. Salmon may be taken, as established by emergency order, starting June 1 when fishing periods are limited to one 48-hour period per week; beginning in July, fishing time is increased to one 84-hour period each week until September 1, when the fishery closes.

There were 3 permits issued in 2012 with 101 sockeye, 5 Chinook and 5 coho salmon reported harvested (Appendices A1 and F5). For a description of regulation governing the Batzulnetas subsistence fishery, please see Botz et al. 2013.

Chitina Subdistrict Personal Use Fishery

The Chitina Subdistrict is the portion of the main stem Copper River from the downstream edge of the McCarthy Road Bridge to a marker 200 yards above Haley Creek. Regulations for the Chitina Subdistrict personal use fishery remain similar to the Glennallen subsistence fishery regulations, with 3 exceptions: 1) permit holders are required to possess a sport fishing license, 2) permit holders are only allowed to take salmon using dip net, and 3) permit holders are limited to one Chinook salmon per household. The BOF determined that retaining the bag limit of one Chinook salmon provided for a reasonable opportunity to harvest Chinook salmon, and would also maintain Chinook salmon harvests at historical levels. Annual bag limits would continue to be 15 salmon for a household of one and 30 salmon for a household of 2 or more individuals. Based upon recent harvests, the BOF determined that a range of 100,000–150,000 sockeye salmon was necessary for personal use needs in the Chitina Subdistrict fishery. This range

includes a hatchery contribution of 15,000–20,000 fish, resulting in an 85,000–130,000 wild sockeye salmon stock harvest allocation.

The *Copper River Personal Use Dip Net Salmon Fishery Management Plan* (5 AAC 77.591) requires the Chitina Subdistrict personal use fishery to be opened on June 7; an emergency order may be issued to close the fishery, effective June 1, and an emergency order to reopen the season shall be issued on or before June 15 depending on the strength and timing of the sockeye salmon run. Additionally, inseason adjustments to the fishery, as necessitated by fluctuations in salmon escapement, are made by emergency order. In 2012, there were 10 EOs issued to make adjustments to the dip net fishery. The first period started on Thursday, June 7 and the last period closed on Friday, August 31. The fishery is then open by regulation from September 1 to 30. Low Chinook salmon commercial harvest rates and poor escapement indices from Native Village of Eyak's fish wheel mark–recapture program led to the closure of the Chinook salmon fishery beginning Monday, June 18. Reported harvest for the Chitina Subdistrict personal use fishery in 2012 was 567 Chinook, 127,000 sockeye, and 1,390 coho salmon. The previous 10-year average reported harvests are 1,780 Chinook, 108,000 sockeye, and 2,180 coho salmon (Appendices A1, A3, and A18). There were 10,016 permits issued for the Chitina personal use fishery in 2012. Of these, 1,986 (19.8%) were not returned. The number of permits issued was above the 10-year average of 8,230 permits issued (Appendix F4).

In 2002, the federal government began issuing permits allowing subsistence harvests on federal lands in the Chitina Subdistrict. Federal subsistence users are allowed to use either a dip net or fish wheel in the Chitina Subdistrict. In 2012, a total of 89 federal permits were issued, of which 80 were returned (Appendix F6). The reported harvest was 865 sockeye, 5 Chinook and 8 coho salmon (Appendices A1, A3, and A18).

PRINCE WILLIAM SOUND AND COPPER RIVER SALMON ENHANCEMENT

Fisheries enhancement and rehabilitation in Alaska began in earnest in the early 1970s by the Fisheries Research and Enhancement Division to help build and stabilize fisheries production. In 1974, the Alaska legislature passed the Private Non-Profit Hatchery Act, allowing private-sector non-profit businesses to assist with salmon enhancement and rehabilitation. In December 1974, PWSAC was created and began hatchery operations at Armin F. Koernig Hatchery on Evans Island in 1975, producing pink and chum salmon. In 1978, VFDA began producing pink, chum, and coho salmon at the Crooked Creek Scientific/Educational facility in Port Valdez. Hatcheries in the Prince William Sound Management Area are currently run by 2 non-profit corporations; PWSAC operates AFK, MBH, WNH, CCH, and GH hatcheries, and VFDA operates SGH. These 2 non-profit corporations are among 15 other non-profit corporations in the state of Alaska that maintain and operate private hatcheries that produce salmon for harvest in common property fisheries.

PWSAC is the largest producer of salmon in Alaska, with a permitted capacity of 719.15 million eggs. PWSAC is also the largest producer of pink and sockeye salmon in Alaska, with a permitted capacity of 497.00 million pink and 49.15 million sockeye salmon eggs. The pink salmon production is more than double the permitted capacity of the next largest producer, VFDA, which has a permitted capacity of 230.00 million pink salmon eggs. PWSAC is the third largest producer of chum salmon in Alaska with a permitted capacity of 165.00 million eggs. In addition to the aforementioned species, PWSAC has a permitted coho salmon capacity

of 4.00 million eggs and VFDA has a capacity of 2.00 million eggs. Further, PWSAC has a 4.00 million egg Chinook salmon permitted capacity, which has not been utilized since 1996 when Chinook salmon eggs were last harvested at WNH. Current permitted salmon egg capacities, in millions of eggs, for the 7 largest aquaculture associations (and all others combined) in Alaska are listed below (Vercessi 2013):

Hatchery non-profit corporation	Chinook Salmon	Chum Salmon	Coho Salmon	Pink Salmon	Sockeye Salmon	Total
Cook Inlet Aquaculture Assn. (CIAA)	4.00	0.00	6.16	125.00	48.66	183.82
Douglas Island Pink and Chum (DIPAC)	1.25	125.00	1.65	50.00	33.50	211.40
Kodiak Region Aquaculture Assn. (KRAA)	0.45	28.00	2.80	215.00	20.60	266.85
Northern Southeast Regional Aquaculture Assn. (NSRAA)	9.00	182.80	12.44	0.30	2.00	206.54
Prince William Sound Aquaculture Corp. (PWSAC)	4.00	165.00	4.00	497.00	49.15	719.15
Southern Southeast Regional Aquaculture Assn. (SSRAA)	3.50	172.00	16.50	0.00	2.70	194.70
Valdez Fisheries Development Assn. (VFDA)	0.30	0.00	2.00	230.00	0.00	232.30
all others	2.90	105.00	11.13	218.00	6.35	343.38
Statewide egg capacity totals (millions)	25.40	777.80	56.68	1,335.30	162.96	2,358.14

In 2012, PWSAC and VFDA contributed 81.3% of the total Area E salmon harvest of 35.34 million fish. PWSAC and VFDA produced approximately 23.60 million (85.5%) of the 27.59 million pink salmon harvested and 32,400 (15.4%) coho salmon of the 210,000 harvested overall in Area E. In addition, PWSAC produced 3.42 million (89.1%) of the 3.83 million chum salmon harvested as well as 1.66 million (44.8%) sockeye salmon of the 3.70 million harvested overall in Area E (Appendix E1 and Table 1).

Gulkana Hatchery

In 2012, the overall run of sockeye salmon produced by the Gulkana hatcheries totaled 440,000 fish (Appendix E7). This was slightly less than the PWSAC total return forecast of 468,000 fish and greater than ADF&G's forecast return of 335,000 fish (PWSAC 2012a; Appendix E1). A total of 65,300 sockeye salmon were reported collected for broodstock or escaped into the watershed. Of these fish, 18,300 were harvested for broodstock and an estimated 30,000 sockeye salmon returned to the hatcheries (including remote release locations) and were not harvested (PWSAC 2012a). Hatchery surplus at Crosswind Lake can be problematic because there is almost no natural spawning habitat in this lake, and prior to the beginning of stocking in 1984 only extremely low levels of sockeye salmon were present. To resolve this issue, the weir in the SHA at Crosswind Lake enumerates fish and prevents fish surplus to escapement needs from migrating into the lake, and fish excess to broodstock needs are destroyed.

Harvest from the Chitina Subdistrict personal use and the Glennallen Subdistrict subsistence fisheries was approximately 43,500 GH sockeye salmon. In addition, an estimated 389 GH sockeye salmon were harvested by sport fisherman in the Copper and Gulkana rivers. The

Copper River District commercial gillnet fleet harvested 76.0% of the total GH run, or 342,000 sockeye salmon (Appendix E7).

Wally Noerenberg Hatchery

In 2012, the total run of chum salmon, released as fry from WNH as well as both remote release sites, was 2.90 million fish. The run was greater than the PWSAC forecast run of 1.04 million chum salmon. (Appendix E1). Errors in the thermal marking program have created uncertainty in the size of the chum salmon run to each release site. Chum salmon returning to all release locations originated from brood years 2006 to 2009 releases. PWSAC reported cumulative survival rates for these brood years of 5.99%, 0.24%, 3.95%, and 0.02%, respectively (PWSAC 2012a). A total of 245,000 chum salmon, excluding viable broodstock, were harvested for hatchery cost recovery at WNH. A total of 168,000 fish were viable broodstock and all of these carcasses were sold as part of a "full utilization" strategy. An additional 3,560 fish represent holding mortalities and 3,000 fish were left unharvested in the hatchery terminal area (Appendix E12). The CCPF harvested 2.45 million or 84.6% of the total WNH chum salmon run including remote releases at AFK and Port Chalmers (Appendix E1).

The total run of pink salmon produced by WNH was 5.70 million fish and below the preseason forecast of 6.30 million pink salmon (Appendix E1). These fish originated from the BY2010 release and had a survival rate of 4.19% (Appendix E3). A total of 1.22 million pink salmon were harvested for hatchery cost recovery at WNH (Appendices E1 and E12). A total of 153,000 fish were viable broodstock and all of these carcasses were sold as part of a "full utilization" strategy. An additional 6,030 fish represent holding mortalities and 5,000 fish were left unharvested in the hatchery terminal area (Appendix E12). The commercial fleet harvested 4.31 million WNH pink salmon, which was 75.6% of the total pink salmon run to this facility (Appendices E1 and E3).

The total run of coho salmon produced by the WNH was approximately 31,000 fish. The overall run was much lower than the preseason forecast of 264,000 coho salmon (Appendix E1). The majority of these fish originated from the brood year 2009 release and had a survival rate of 0.89%. The commercial fleet harvested 11,000 coho salmon from the Coghill District of which all but 717 (assumed wild coho salmon harvest) are thought to be of hatchery origin. The sport fleet harvested approximately 20,100 coho salmon of WNH origin (Appendix E5). PWSAC sold no fish as raceway cost recovery harvest and collected 490 coho salmon for broodstock of which 486 were viable and needed for a total of 4.00 million green eggs. An additional 42 fish were left unharvested in the hatchery terminal area (Appendix E12).

Main Bay Hatchery

In 2012, the total run of sockeye salmon produced by the MBH was 1.29 million sockeye salmon, exceeding the forecast run of 1.20 million sockeye salmon (Appendix E1). A total of 13,700 sockeye salmon were collected for broodstock purposes, of which 6,500 were viable broodstock, and carcasses were not sold (Appendix E16). The commercial fleet harvested approximately 1.27 million fish or 98.1% of the total sockeye salmon run (Appendix E17).

Solomon Gulch Hatchery

In 2012, the overall run of pink salmon produced by SGH was 10.7 million fish, which was below the preseason forecast of 13.6 million fish (Appendix E1). These fish originated from the brood year 2010 release, and had a survival rate of approximately 4.80% (Appendix E3).

Approximately 1.14 million pink salmon were harvested for hatchery cost recovery (Appendix E20). Approximately 256,000 fish were captured for broodstock and 236,000 of these carcasses were sold as part of the "full utilization" strategy. An additional 6,900 fish represent holding mortalities and 38,200 fish were left unharvested in the hatchery terminal area (Appendix E20). The commercial fleet harvested 9.39 million fish or 87.8% of the pink salmon run to this facility (Appendix E3).

The overall run of coho salmon produced by SGH was 23,500 fish, excluding sport harvest. The run was below the preseason forecast of 129,000 coho salmon (Appendix E1). These fish originated from the brood year 2009 release and had a survival rate of 1.20%. The commercial CCPF fleet harvested 914 SGH coho salmon, or 1.44% of the total coho salmon run to this facility. ADF&G used a 5-year average harvest to estimate that 59,600 coho salmon were harvested by sport users (Appendix E5); in contrast, VFDA estimated that approximately 20,000 coho salmon were harvested (VFDA 2012). The estimate produced by VFDA may be more accurate because of the very poor coho salmon return observed in 2012. A total of 2,371 fish were captured for broodstock and all of these carcasses were sold as part of a "full utilization" strategy. There were 144 holding mortalities and 425 fish were left unharvested in the vicinity of the hatchery (Appendix E20). Due to the poor coho salmon run, SGH was granted a remote egg take permit at Corbin Creek in 2012, but the hatchery was able to make its broodstock goal by the end of the season and did not use the permit.

Cannery Creek Hatchery

In 2012, the overall run of pink salmon produced by CCH was 3.92 million fish, which was below the preseason projection of 5.70 million fish (Appendix E1). These fish originated from the brood year 2010 release, and had a survival rate of approximately 2.90% (Appendix E3). A total of 33,000 pink salmon were harvested for CCH cost recovery (Appendix E24). A total of 128,000 fish represent viable broodstock and 73,600 of these carcasses were sold as part of a "full utilization" strategy. An additional 1,290 fish represent holding mortalities and 5,000 fish were left unharvested in the hatchery terminal area (Appendix E24). Flood conditions in late August washed out many fish that were intended for broodstock, and as a result CCH fell short of their egg-take goal of 187 million eggs in 2012. PWSAC reports 102 million green eggs taken during the 2012 CCH hatchery egg-take operations (PWSAC 2012b). The CCPF harvested 3.73 million or 93.5% of the total pink salmon run to this facility (Appendix E1).

Armin F. Koernig Hatchery

In 2012, the overall run of pink salmon returning to AFK hatchery was 3.58 million fish, which was below the anticipated run of 7.60 million pink salmon. These fish originated from the brood year 2010 release and had a survival rate of 2.75% (Appendix E3). A total of 490,000 pink salmon were harvested for hatchery cost recovery at AFK (Appendix E27). A total of 184,000 fish represent viable broodstock and all of these carcasses were sold as part of a "full utilization" strategy. An additional 573 fish represent holding mortalities and 7,500 fish were left unharvested in the hatchery terminal area (Appendix E27). The CCPF harvested 3.38 million or 60.9% of the total pink salmon run to this facility (Appendix E1).

2012 Prince William Sound Herring Fisheries

The Prince William Sound herring management area encompasses all coastal waters of the Gulf of Alaska between Cape Suckling and Cape Fairfield, extending offshore to 59° N latitude. A

total of 5 herring fisheries may occur annually. During the spring season, 2 fisheries target herring for sac roe using either purse seine or gillnet gear and 2 spawn-on-kelp fisheries harvest either naturally occurring spawn-on-kelp or spawn-on-kelp suspended in pounds. In the fall a food/bait fishery may occur. Of the 5 herring fisheries, only the wild spawn-on-kelp and the food/bait fishery are open entry fisheries. Each of these fisheries is managed depending on observed herring population size and age structure. For additional background, including a review of historical and recent PWS herring management and harvest strategy, please see Botz et al. 2013.

Season Summary

Based on herring stock assessment information, all Pacific herring fisheries between 1 July 2011 and 30 June 2012 were closed. The projected spawning biomass for spring 2012 was below the regulatory minimum spawning biomass of 22,000 tons.

Age Structured Assessment modeling was used to estimate the 2012 spawning biomass of PWS Pacific herring. The spawning biomass forecast for 2012 is 18,900 tons (Appendix G12). The forecast is below the regulatory threshold of 22,000 tons. Additionally, a majority of the biomass is projected to be fish just recruiting to the spawning population (age-3 and -4 fish) (Appendix G14).

Hydroacoustic, net sampling, and aerial surveys were conducted in 2012 to assess herring biomass, disease prevalence, age composition, and growth. In March and April 2012, acoustic surveys of adult herring were conducted with the ADF&G vessel R/V *Solstice*. Broad scale surveys were conducted in eastern PWS up to Boulder Bay. Detailed acoustics data were collected on fish aggregations in Port Gravina, between St. Matthews Bay and Red Head, and on the south side of Port Fidalgo.

Age composition samples in Eastern PWS were predominately age-3 to age-7 (greater than 80% in most samples) (Appendix G14). Some prespawning samples from Eastern PWS (upper Port Gravina) were predominantly younger fish (>70% age-3). No collections were made from a smaller spawning event near Montague Island. Herring disease assessment has been included as part of the annual age, sex, and size assessment completed each spring since 1993. Disease sampling in March and April 2012 found no fish positive for viral hemorrhagic septicemia virus (VHSV) in 180 fish examined. The prevalence of *Ichthyophonus hoferi* was 40.8% in Port Gravina (60 fish) and 35.0% in Port Fidalgo (60 fish).

A total of 39.3 mile-days of spawn were observed in spring 2012. This was fewer mile-days of spawn observed in any year in which commercial fishing occurred since 1973. Seventeen mile-days were assessed as dissipating or drift of milt. Most spawning events were in northeastern (18.6 mile-days) and southeastern (19.1 mile-days) PWS. Only 1.6 mile-days of spawn were observed on Montague Island in 2012 (Appendix G15).

2012–2013 Herring Season Outlook

Given the PWS herring spawning population, current size and age structure, a commercial harvest is not anticipated in 2013. Consecutive years of low recruitment will further delay the recovery of the herring population to a size capable of supporting a sustainable commercial harvest. ADF&G will continue to monitor the PWS herring biomass to assess growth and recruitment. An ongoing disease study will continue to examine the incidence of VHSV and *I. hoferi* in the PWS herring population.

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TABLES AND FIGURES

Table 1.–Prince William Sound Management Area commercial salmon harvest by gear type and district, 2012.

District	Permits	Chinook	Sockeye	Coho	Pink	Chum	Total
Eastern	216	41	11,907	8,210	10,601,626	102,046	10,723,830
Northern	171	1	534	502	3,677,080	2,149	3,680,266
Coghill	136	15	52,893	3,269	2,304,364	199,010	2,559,551
Northwestern	11	0	58	28	87,010	37	87,133
Southwestern	190	94	84,521	9,950	5,722,240	164,913	5,981,718
Montague	10	0	20	148	187,075	280	187,523
Southeastern	67	35	4,599	219	225,255	35,560	265,668
Unakwik	3	0	353		0	1	354
Purse seine total	224	186	154,885	22,326	22,804,650	503,996	23,486,043
Bering River	48	1	0	46,169	1	0	46,171
Copper River	510	11,764	1,866,541	130,261	6,011	27,333	2,041,910
Coghill	359	147	383,289	7,724	1,125,888	2,256,915	3,773,963
Eshamy	355	52	987,619	192	88,951	254,774	1,331,588
Montague	54	46	486	27	13,525	325,137	339,221
Unakwik	5	0	1,337	0	16	2	1,355
Drift gillnet total	522	12,010	3,239,272	184,373	1,234,392	2,864,161	7,534,208
Eshamy	29	14	294,632	97	17,311	24,368	336,422
Set gillnet total	29	14	294,632	97	17,311	24,368	336,422
Solomon Gulch	1	9	1,198	2,372	1,373,104	2,675	1,379,358
Cannery Creek	1	0	0	0	106,625	0	106,625
Wally Noerenberg	1	0	0	0	1,378,093	438,266	1,816,359
Main Bay	0	0	0	0	0	0	0
Armin F. Koernig	1	0	0	0	674,036	0	674,036
Hatchery total [a]	4	9	1,198	2,372	3,531,858	440,941	3,976,378
Test fishery	1	0	0	0	767	0	767
Home pack	435	940	10,805	1,298	3,629	1,295	17,967
Confiscated fish	2	0	17	0	18	215	250
Donated fish	0	0	0	0	0	0	0
Misc. total		940	10,822	1,298	4,414	1,510	18,984
Prince William Sound total		13,159	3,700,809	210,466	27,592,625	3,834,976	35,352,035

[a] Hatchery sales for hatchery operating costs.

Table 2.–Total commercial salmon harvest by species from all gear types, Prince William Sound Area, 2002–2012.

Year	Gear	Chinook		Sockeye		Coho		Pink		Chum	
2002	DGN	39,384	(99.3%)	1,907,520	(84.3%)	617,075	(94.9%)	132,499	(0.7%)	1,797,115	(28.2%)
2002	SGN	30	(0.1%)	241,660	(10.7%)	525	(0.1%)	64,421	(0.3%)	22,987	(0.4%)
2002	PS	260	(0.7%)	18,837	(0.8%)	32,730	(5.0%)	7,966,259	(42.0%)	1,972,459	(30.9%)
2002	Hatchery	1	(0.0%)	93,722	(4.1%)	1	(0.0%)	10,787,752	(56.9%)	2,580,926	(40.5%)
	Total	39,675		2,261,739		650,331		18,950,931		6,373,487	
2003	DGN	48,056	(99.8%)	1,946,105	(71.4%)	434,634	(83.3%)	118,951	(0.2%)	753,883	(19.8%)
2003	SGN	0	(0.0%)	215,733	(7.9%)	663	(0.1%)	28,537	(0.1%)	6,265	(0.2%)
2003	PS	120	(0.2%)	197,407	(7.2%)	66,838	(12.8%)	38,661,721	(74.4%)	1,481,727	(38.9%)
2003	Hatchery	0	(0.0%)	366,770	(13.5%)	19,782	(3.8%)	13,156,974	(25.3%)	1,563,019	(41.1%)
	Total	48,176		2,726,015		521,917		51,966,183		3,804,894	
2004	DGN	38,432	(99.6%)	1,500,223	(79.3%)	575,122	(92.8%)	81,090	(0.3%)	581,762	(29.1%)
2004	SGN	11	(0.0%)	91,412	(4.8%)	825	(0.1%)	51,655	(0.2%)	10,381	(0.5%)
2004	PS	156	(0.4%)	17,530	(0.9%)	33,990	(5.5%)	11,573,514	(49.2%)	881,129	(44.0%)
2004	Hatchery	0	(0.0%)	282,632	(14.9%)	9,974	(1.6%)	11,825,224	(50.3%)	528,676	(26.4%)
	Total	38,599		1,891,797		619,911		23,531,483		2,001,948	
2005	DGN	35,024	(99.4%)	1,606,130	(80.8%)	360,574	(67.8%)	228,463	(0.4%)	888,847	(42.3%)
2005	SGN	0	(0.0%)	109,532	(5.5%)	882	(0.2%)	126,135	(0.2%)	3,452	(0.2%)
2005	PS	224	(0.6%)	63,482	(3.2%)	142,672	(26.8%)	47,017,421	(78.4%)	568,847	(27.1%)
2005	Hatchery	0	(0.0%)	207,605	(10.4%)	27,417	(5.2%)	12,572,614	(21.0%)	638,320	(30.4%)
	Total	35,248		1,986,749		531,545		59,944,633		2,099,466	
2006	DGN	30,603	(99.2%)	2,012,665	(79.8%)	477,430	(62.5%)	145,348	(0.7%)	314,487	(14.4%)
2006	SGN	9	(0.0%)	124,087	(4.9%)	352	(0.0%)	20,863	(0.1%)	9,883	(0.5%)
2006	PS	227	(0.7%)	37,745	(1.5%)	268,574	(35.2%)	11,828,266	(54.5%)	1,032,627	(47.3%)
2006	Hatchery	0	(0.0%)	348,276	(13.8%)	17,198	(2.3%)	9,727,499	(44.8%)	824,558	(37.8%)
	Total	30,839		2,522,773		763,554		21,721,976		2,181,555	
2007	DGN	39,300	(98.2%)	2,645,002	(81.9%)	190,025	(57.8%)	188,950	(0.3%)	1,100,667	(30.8%)
2007	SGN	18	(0.0%)	196,537	(6.1%)	365	(0.1%)	13,796	(0.0%)	24,651	(0.7%)
2007	PS	713	(1.8%)	66,004	(2.0%)	108,593	(33.0%)	51,270,207	(80.8%)	1,353,892	(37.8%)
2007	Hatchery	0	(0.0%)	321,330	(10.0%)	29,644	(9.0%)	11,995,924	(18.9%)	1,099,730	(30.7%)
	Total	40,031		3,228,873		328,627		63,468,877		3,578,940	

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Table 2.–Page 2 of 2.

Year	Gear	Chinook		Sockeye		Coho		Pink		Chum	
2008	DGN	11,643	(98.8%)	1,061,224	(81.7%)	325,249	(59.1%)	960,113	(2.3%)	2,561,113	(50.5%)
2008	SGN	18	(0.2%)	162,403	(12.5%)	151	(0.0%)	20,455	(0.0%)	53,627	(1.1%)
2008	PS	127	(1.1%)	74,912	(5.8%)	202,003	(36.7%)	33,727,052	(79.6%)	1,820,049	(35.9%)
2008	Hatchery	0	(0.0%)	0	(0.0%)	22,623	(4.1%)	7,639,384	(18.0%)	641,332	(12.6%)
	Total	11,788		1,298,539		550,026		42,347,004		5,076,121	
2009	DGN	9,801	(97.7%)	1,555,669	(81.4%)	275,636	(91.9%)	400,524	(2.2%)	2,292,015	(71.2%)
2009	SGN	47	(0.5%)	152,642	(8.0%)	49	(0.0%)	4,251	(0.0%)	50,748	(1.6%)
2009	PS	28	(0.3%)	70,473	(3.7%)	6,739	(2.2%)	10,765,944	(58.7%)	269,470	(8.4%)
2009	Hatchery	0	(0.0%)	133,873	(7.0%)	17,424	(5.8%)	7,411,111	(40.4%)	608,541	(18.9%)
	Total	10,036		1,912,305		299,848		18,355,212		3,219,320	
2010	DGN	10,131	(99.6%)	1,691,735	(83.1%)	298,140	(89.4%)	3,488,016	(4.9%)	3,301,015	(76.4%)
2010	SGN	17	(0.2%)	282,467	(13.9%)	69	(0.0%)	16,766	(0.0%)	80,516	(1.9%)
2010	PS	22	(0.2%)	62,759	(3.1%)	8,338	(2.5%)	62,257,799	(87.3%)	186,537	(4.3%)
2010	Hatchery	0	(0.0%)	0	(0.0%)	27,074	(8.1%)	5,546,994	(7.8%)	754,805	(17.5%)
	Total	10,170		2,036,961		333,621		71,309,575		4,322,873	
2011	DGN	18,929	(99.0%)	3,155,094	(89.3%)	233,663	(63.1%)	829,504	(2.5%)	1,305,120	(68.2%)
2011	SGN	37	(0.2%)	312,659	(8.9%)	612	(0.2%)	17,629	(0.1%)	25,350	(1.3%)
2011	PS	150	(0.8%)	64,171	(1.8%)	92,258	(24.9%)	26,110,579	(78.2%)	107,839	(5.6%)
2011	Hatchery	0	(0.0%)	0	(0.0%)	43,797	(11.8%)	6,436,933	(19.3%)	475,881	(24.9%)
	Total	19,116		3,531,924		370,330		33,394,645		1,914,190	
10-year avg.	DGN	28,130	(99.2%)	1,908,137	(81.6%)	378,755	(76.2%)	657,346	(1.6%)	1,489,602	(43.1%)
	SGN	19	(0.1%)	188,913	(8.1%)	449	(0.1%)	36,451	(0.1%)	28,786	(0.8%)
	PS	203	(0.7%)	67,332	(2.9%)	96,274	(19.4%)	30,117,876	(74.3%)	967,458	(28.0%)
	Hatchery	0	(0.0%)	175,421	(7.5%)	21,493	(4.3%)	9,710,041	(24.0%)	971,579	(28.1%)
	Total	28,352		2,339,803		496,971		40,521,714		3,457,425	
2012	DGN	12,939	(98.3%)	3,249,616	(87.8%)	185,593	(88.2%)	1,237,938	(4.5%)	2,865,469	(74.7%)
2012	SGN	14	(0.1%)	294,950	(8.0%)	97	(0.0%)	17,311	(0.1%)	24,368	(0.6%)
2012	PS	197	(1.5%)	155,045	(4.2%)	22,404	(10.6%)	22,805,518	(82.7%)	504,198	(13.1%)
2012	Hatchery	9	(0.1%)	1,198	(0.0%)	2,372	(1.1%)	3,521,887	(12.8%)	440,941	(11.5%)
	Total	13,159		3,700,809		210,466		27,582,654		3,834,976	

Notes: Harvest numbers are fish ticket data from Zephyr database query. DGN = Drift gillnet, SGN = set gillnet, and PS = purse seine gear.

Table 3.–Mean price and estimated exvessel value of the total commercial salmon harvest by gear type, Prince William Sound, 2012.

Purse Seine [a]						
	Species	Number	Pounds	Average weight	Price	Value
	Chinook	186	2,182	11.73	$1.50	$3,279
	Sockeye	154,902	1,021,904	6.60	$1.42	$1,449,007
	Coho	22,326	170,191	7.62	$0.69	$117,259
	Pink	22,804,668	90,674,500	3.98	$0.42	$37,732,043
	Chum	504,143	3,583,369	7.11	$0.68	$2,450,017
		23,486,225	95,452,146			$41,751,606
Drift Gillnet [a]						
	Species	Number	Pounds	Average weight	Price	Value
	Chinook	12,010	252,740	21.04	$5.35	$1,352,540
	Sockeye	3,239,272	21,657,844	6.69	$1.73	$37,444,516
	Coho	184,373	1,501,620	8.14	$1.10	$1,646,222
	Pink	1,234,392	4,355,409	3.53	$0.38	$1,659,983
	Chum	2,864,229	20,194,461	7.05	$0.65	$13,170,829
		7,534,276	47,962,074			$55,274,091
Set Gillnet [a]						
	Species	Number	Pounds	Average weight	Price	Value
	Chinook	14	151	10.79	$1.52	$230
	Sockeye	294,632	2,095,745	7.11	$1.17	$2,454,505
	Coho	97	660	6.80	$0.77	$509
	Pink	17,311	69,832	4.03	$0.41	$28,480
	Chum	24,368	175,423	7.20	$0.70	$121,995
		336,422	2,341,811			$2,605,720
Hatchery Sales [a]						
	Species	Number	Pounds	Average weight	Price	Value
	Chinook	9	74	8.22	$0.79	$59
	Sockeye	1,198	9,764	8.15	$0.79	$7,749
	Coho	2,372	10,416	4.39	$0.02	$217
	Pink	3,521,887	13,418,116	3.81	$0.92	$12,381,620
	Chum	440,941	3,351,491	7.60	$0.88	$2,952,252
		3,966,407	16,789,861			$15,341,896

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Table 3.–Page 2 of 2.

Confiscated [a]

Species	Number	Pounds	Average weight	Price	Value
Chinook	0	0	0.00	$0.00	$0
Sockeye	17	112	6.59	$1.42	$159
Coho	0	0	0.00	$0.00	$0
Pink	18	65	3.61	$0.42	$27
Chum	215	1,614	7.51	$0.68	$1,090
	250	1,791			$1,275

Gear type	Value of catch	No. of permits	Average earnings
Purse seine	$41,751,606	224	$186,391
Drift gillnet	$55,274,091	522	$105,889
Set gillnet	$2,605,720	29	$89,852
Subtotal Value of CPF catch	$99,631,416		
Hatchery	$15,341,896		
Confiscated	$1,275		
GRAND TOTAL	$114,974,587		

[a] Number and pounds from fish ticket data.

Table 4.–Average price paid to permit holders for salmon, Prince William Sound, 1988–2012.

	Chinook salmon		Sockeye salmon			Coho salmon			Pink salmon			Chum salmon		
	Gillnet		Gillnet			Gillnet			Gillnet			Gillnet		
Year	Copper and Bering	PWS	Copper and Bering	PWS	Purse seine	Copper and Bering	PWS	Purse seine	Copper and Bering	PWS	Purse seine	Copper and Bering	PWS	Purse seine
1988	$2.23	$2.43	$3.20	$2.74	$2.68	$2.35	$1.19	$1.85	NA	$0.60	$0.79	NA	$0.92	$0.72
1989	$2.25	$0.00	$2.30	$0.00	$2.68	$0.60	$0.00	$1.58	NA	$0.00	$0.48	NA	$0.00	$0.43
1990	$2.24	$1.45	$2.13	$1.59	$1.50	$0.97	$0.69	$0.50	NA	$0.30	$0.30	NA	$0.70	$0.70
1991	$1.65	$1.00	$1.28	$1.28	$1.00	$0.65	$0.44	$0.45	NA	$0.12	$0.12	NA	$0.40	$0.40
1992	$2.50	$1.55	$2.50	$1.55	$1.55	$0.90	$0.90	$0.90	NA	$0.18	$0.18	NA	$0.55	$0.55
1993	$1.82	$0.97	$1.32	$0.87	$0.83	$0.80	$0.66	$0.54	NA	$0.17	$0.16	NA	$0.71	$0.36
1994	$1.43	$0.84	$1.27	$1.16	$0.89	$0.74	$0.67	$0.54	NA	$0.11	$0.16	NA	$0.32	$0.24
1995	$2.19	$0.79	$1.67	$1.07	$0.86	$0.52	$0.37	$0.39	NA	$0.18	$0.18	NA	$0.39	$0.28
1996	$1.96	$0.68	$1.38	$0.85	$0.73	$0.53	$0.24	$0.36	NA	$0.04	$0.07	NA	$0.14	$0.13
1997	$2.00	$1.00	$0.88	$0.85	$0.85	$0.30	$0.25	$0.30	NA	$0.07	$0.12	NA	$0.25	$0.30
1998	$2.07	$1.25	$1.49	$1.11	$1.01	$0.46	$0.41	$0.31	NA	$0.14	$0.12	NA	$0.21	$0.27
1999	$3.44	$0.50	$1.84	$0.89	$0.98	$0.58	$0.23	$0.49	NA	$0.06	$0.10	NA	$0.15	$0.27
2000	$4.02	$4.04	$1.72	$1.38	$0.90	$0.57	$0.56	$0.42	NA	$0.11	$0.15	NA	$0.26	$0.28
2001	$3.30	$1.94	$1.35	$0.77	$0.74	$0.32	$0.20	$0.26	NA	$0.05	$0.13	NA	$0.38	$0.37
2002	$3.34	$1.26	$1.29	$1.14	$0.57	$0.35	$0.09	$0.25	NA	$0.05	$0.09	NA	$0.15	$0.15
2003	$3.48	$0.00	$1.16	$0.80	$0.71	$0.48	$0.48	$0.42	NA	$0.06	$0.07	NA	$0.17	$0.17
2004	$4.69	$1.38	$1.81	$0.85	$0.55	$0.69	$0.28	$0.42	NA	$0.04	$0.10	NA	$0.23	$0.18
2005	$4.70	$0.00	$1.79	$0.92	$0.54	$0.83	$0.69	$0.10	NA	$0.05	$0.08	NA	$0.28	$0.18
2006	$5.03	$1.20	$1.83	$1.15	$1.05	$0.92	$0.67	$0.60	NA	$0.11	$0.16	NA	$0.37	$0.33
2007	$4.50	$2.70	$1.81	$1.04	$0.82	$0.90	$0.30	$0.59	NA	$0.11	$0.17	NA	$0.33	$0.37
2008	$5.96	$1.04	$3.12	$1.24	$1.17	$1.23	$1.24	$1.12	$0.27	$0.33	$0.34	$0.21	$0.55	$0.57
2009	$5.29	$2.06	$2.09	$1.42	$1.32	$1.30	$1.13	$0.42	$0.22	$0.27	$0.24	$0.28	$0.52	$0.53
2010	$5.50	$2.13	$2.58	$1.72	$1.79	$1.27	$0.58	$0.70	$0.29	$0.34	$0.35	$0.36	$0.80	$0.78
2011 [a]	$5.66	$3.97	$2.08	$1.56	$1.43	$1.24	$1.09	$1.04	$0.31	$0.40	$0.45	$0.38	$0.90	$0.86
10-year average	$4.82	$1.57	$1.96	$1.18	$1.00	$0.92	$0.65	$0.57	$0.27	$0.18	$0.20	$0.31	$0.43	$0.41
2012	$5.39	$1.44	$1.94	$1.40	$1.42	$1.10	$1.04	$0.69	$0.29	$0.38	$0.42	$0.28	$0.66	$0.68

Note: These prices are based on weighted average prices given voluntarily by processors and hatchery operators and do not represent prices reported in the commercial operators annual report (COAR). These prices are estimates and do not reflect postseason adjustments and bonuses. Caution should be used when estimating values from these prices.

[a] Values are from COAR 2011.

Table 5.–Estimated exvessel value of the total commercial salmon harvest by gear type with previous 10-year average, Prince William Sound, 2002–2012.

Purse Seine Species	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Previous 10-year avg.	2012
Chinook	1,353	924	1,270	1,787	4,940	9,330	2,487	985	634	6,120	2,983	3,279
Sockeye	58,142	847,966	46,573	207,022	219,984	338,262	540,113	584,595	705,231	560,497	410,839	1,449,007
Coho	69,207	226,619	121,688	103,312	1,426,736	546,805	2,056,932	22,522	48,476	633,076	525,537	117,259
Pink	2,425,505	10,716,380	4,293,551	13,104,242	6,688,126	28,839,799	39,059,344	7,890,237	78,063,374	35,834,331	22,691,489	37,732,043
Chum	2,423,525	1,717,083	1,228,965	773,620	3,007,947	3,499,189	8,002,952	1,123,335	1,019,498	691,520	2,348,763	2,450,017
	$4,977,731	$13,508,972	$5,692,047	$14,189,982	$11,347,734	$33,233,386	$49,661,828	$9,621,674	$79,837,212	$37,725,543	$25,979,611	$41,751,606
Drift Gillnet Species												
Chinook	2,691,215	3,810,019	4,050,947	3,575,253	3,145,401	3,886,795	1,511,402	956,053	1,025,380	2,148,066	2,680,053	1,352,540
Sockeye	14,964,894	13,791,971	13,436,808	15,849,204	19,375,916	26,169,047	11,533,354	17,386,798	18,486,735	36,356,087	18,735,081	37,444,516
Coho	2,027,738	1,762,604	3,561,659	2,374,703	3,972,107	1,391,204	3,937,198	3,197,336	3,523,008	2,031,963	2,777,952	1,646,222
Pink	23,889	27,904	12,134	84,308	54,070	82,356	1,195,812	363,373	3,446,356	1,025,474	631,568	1,659,983
Chum	2,206,854	821,818	976,553	1,965,383	845,703	2,542,327	10,853,908	9,227,837	11,973,968	8,669,206	5,008,356	13,170,829
	$21,914,590	$20,214,316	$22,038,101	$23,848,851	$27,393,197	$34,071,729	$29,031,674	$31,131,396	$38,455,447	$50,230,797	$29,833,010	$55,274,091
Set Gillnet Species												
Chinook	765	0	189	0	143	1,267	533	1,302	756	1,832	679	230
Sockeye	1,701,077	1,070,058	454,709	608,528	822,232	1,318,799	1,238,739	1,451,897	3,103,081	2,993,318	1,476,244	2,454,505
Coho	388	1,611	1,635	4,737	1,869	873	1,414	241	250	2,297	1,531	509
Pink	10,848	6,324	7,439	23,542	8,325	5,416	20,966	3,419	20,573	21,931	12,878	28,480
Chum	27,638	6,742	17,261	6,880	29,925	53,380	231,785	197,332	450,989	163,884	118,582	121,995
	$1,740,716	$1,084,735	$481,233	$643,687	$862,493	$1,379,735	$1,493,437	$1,654,191	$3,575,649	$3,183,261	$1,609,914	$2,605,720
Hatchery Sales Species												
Chinook	15	0	0	0	0	0	0	0	0	0	2	59
Sockeye	418,114	1,769,179	997,020	2,383,400	2,173,808	1,790,819	0	1,088,363	0	0	1,062,070	7,749
Coho	1	0	35,733	0	102,792	161,995	67,879	145,267	44,808	280,215	83,869	217
Pink	4,989,921	6,068,403	5,718,678	7,288,894	7,300,390	6,809,392	7,574,535	5,208,870	8,911,203	11,867,472	7,173,776	12,381,620
Chum	3,794,069	1,643,243	779,268	1,704,693	2,893,174	2,105,903	2,465,426	1,816,012	2,894,835	2,802,681	2,289,930	2,952,252
	$9,202,119	$9,480,825	$7,530,699	$11,376,987	$12,470,164	$10,868,110	$10,107,840	$8,258,512	$11,850,846	$14,950,368	$10,609,647	$15,341,896

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Table 5.–Page 2 of 2.

Other Gear Species	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011 [a]	Previous 10-year avg.	2012[a]
Chinook	200	26	493	81	0	0	0	0	0	0	80	0
Sockeye	1,324	195	614	289	0	0	0	0	0	16	244	159
Coho	0	0	0	0	0	0	0	0	0	0	0	0
Pink	0	2,812	0	0	0	0	0	0	0	11,123	1,393	27
Chum	5	0	0	0	0	0	0	0	0	1,169	117	1,090
	$1,529	$3,033	$1,107	$370	$0	$0	$0	$0	$0	$12,308	$1,835	$1,275
Average Earnings												
Purse seine	$41,481	$127,443	$54,210	$137,767	$299,400	$447,404	$352,212	$518,423	$216,813	$206,151	$240,130	$186,391
Drift gillnet	$41,039	$39,327	$42,219	$46,807	$68,971	$57,375	$57,262	$75,255	$96,784	$97,916	$62,295	$105,889
Set gillnet	$62,168	$38,741	$17,823	$23,840	$53,067	$57,440	$59,737	$132,431	$109,768	$109,768	$66,478	$89,852
Number of Permits Fished												
Purse seine	120	106	105	103	111	111	141	154	174	183	131	224
Drift gillnet	534	514	522	508	494	506	507	511	519	513	513	522
Set gillnet	28	28	27	27	26	26	25	27	29	29	27	29

[a] Confiscated fish.

Table 6.–Spawning escapement goals for Area E salmon stocks, 2012.

Species/stock	Goal Lower		Goal Upper	Long-term target [a]	Type [b]	Year implemented [c]	Evaluation method
Chinook salmon							
Copper River	24,000	and up		27,000	SEG [d]	2003	Mark-recapture
Coho salmon							
Bering River	13,000	–	33,000		SEG	2003	Aerial surveys
Copper River Delta	32,000	–	67,000		SEG	2003	Aerial surveys
Sockeye salmon							
Bering River	15,000	–	33,000		SEG	2012	Aerial surveys
Upper Copper River [e]	360,000	–	750,000	361,000	SEG	2012	Didson sonar
Copper River Delta [f]	55,000	–	130,000	84,500	SEG	2003	Aerial surveys
Coghill Lake	20,000	–	60,000		SEG	2012	Weir
Eshamy Lake	13,000	–	28,000		BEG	2009	Weir
Pink Salmon [g]							
Even-year Broodline							
Eastern District	250,000	–	580,000	390,000	SEG	2012	Aerial surveys
Northern/Unakwik districts	140,000	–	210,000	160,000	SEG	2012	Aerial surveys
Coghill District	60,000	–	150,000	100,000	SEG	2012	Aerial surveys
Northwestern District	70,000	–	140,000	100,000	SEG	2012	Aerial surveys
Eshamy District	3,000	–	11,000	6,000	SEG	2012	Aerial surveys
Southwestern District	70,000	–	160,000	130,000	SEG	2012	Aerial surveys
Montague District	50,000	–	140,000	70,000	SEG	2012	Aerial surveys
Southeastern District	150,000	–	310,000	200,000	SEG	2012	Aerial surveys
Odd–year Broodline							
Eastern District	310,000	–	640,000	410,000	SEG	2013	Aerial surveys
Northern/Unakwik districts	90,000	–	180,000	130,000	SEG	2013	Aerial surveys
Coghill District	60,000	–	250,000	130,000	SEG	2013	Aerial surveys
Northwestern District	50,000	–	110,000	80,000	SEG	2013	Aerial surveys
Eshamy District	4,000	–	11,000	9,000	SEG	2013	Aerial surveys
Southwestern District	70,000	–	190,000	120,000	SEG	2013	Aerial surveys
Montague District	140,000	–	280,000	210,000	SEG	2013	Aerial surveys
Southeastern District	270,000	–	620,000	360,000	SEG	2013	Aerial surveys
Chum salmon [h]							
Eastern District	50,000	and up		103,100	SEG [d]	2006	Aerial surveys
Northern District	20,000	and up		40,100	SEG [d]	2006	Aerial surveys
Coghill District	8,000	and up		18,750	SEG [d]	2006	Aerial surveys
Northwestern District	5,000	and up		13,000	SEG [d]	2006	Aerial surveys
Southeastern District	8,000	and up		25,000	SEG [d]	2006	Aerial surveys

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[a] Managed for escapements that on average match the historical average escapement listed. For pink salmon, these long-term targets are the median escapement values.

[b] Goal types include biological escapement goal (BEG) and sustainable escapement goal (SEG) as defined in 5 AAC 39.222 Policy for the management of sustainable salmon fisheries.

[c] Goals are generally adopted the year before they are implemented.

[d] Goals are lower bound SEG goals (5 AAC 39.222).

[e] The Upper Copper River is managed for an inriver goal evaluated by the Miles Lake sonar. Upriver harvests and hatchery contributions are subtracted to estimate the spawning escapement.

[f] The Copper River Delta sockeye salmon goal is managed for escapements that, on average, match the long-term escapement index of 84,500.

[g] Pink and chum salmon escapements are indexed by the area under the curve (AUC) of weekly aerial surveys adjusted for stream life.

[h] There are no chum salmon goals for Unakwik, Eshamy, Southwestern, or Montague districts, but streams are surveyed.

Table 7.–Preseason harvest projections for the 2012 common property salmon fishery by district and species, Prince William Sound Area.

		Chinook		Sockeye		Coho [c]		Pink		Chum	
District/facility [a]	Forecast type [b]	Point estimate	Range	Point estimate	Range	Point estimate	Range	Point estimate	Range	Point estimate	Range
Copper River [d]	CPF harvest	27	6–60	1,190	520–1,860	281	7–555				
Bering River [e]	CPF harvest			17	0–52	53	0–117				
Coghill [f]	CPF harvest			291	154–428						
Eshamy [f]	CPF harvest			33	9–57						
Unakwik [g]	CPF harvest			7	2–11						
General districts	CPF harvest							3,240	1,610–6,710	36	0–182
Total wild stock		27	6–60	1,538	853–2,223	334	55–615	3,240	1,610–6,710	36	0–182
SGH	CPF harvest					118		10,832			
AFK	CPF harvest							6,327		210	
WNH [h]	CPF harvest					261		5,218		1,164	
CCH	CPF harvest							4,620			
MBH [i]	CPF harvest			1,191							
GH	CPF harvest			230	100–370						
Total hatchery				1,421		379		26,997		1,374	
Total hatchery and wild		27		2,959		713		30,237		1,410	

Note: All values are in thousands. Prince William Sound Area hatchery facility abbreviations include SGH (Solomon Gulch Hatchery), AFK (Armin F. Koernig Hatchery), WNH (Wally Noerenberg Hatchery), CCH (Cannery Creek Hatchery), MBH (Main Bay Hatchery), and GH (Gulkana Hatchery).

[a] Formal forecast procedures are used for estimating wild stock runs of pink and chum salmon in PWS. Hatchery contributions are based on known fry releases and average marine survival rates. Harvest estimates are made only for species that constitute a significant portion of the catch.

[b] The Alaska Department of Fish and Game (ADF&G) provides common property fishery (CPF) harvest forecasts for all wild stocks and Gulkana Hatchery sockeye salmon. Hatchery operators provide CPF forecasts for PWS hatchery returns and Gulkana Hatchery sockeye salmon. Harvest projections do not include salmon harvested by hatcheries for cost recovery.

[c] ADF&G provides commercial common property (CCPF) harvest forecasts for Copper River and Bering River coho salmon.

[d] Formalized sibling model forecast procedures are used for Copper River sockeye salmon runs. Copper River Chinook and coho salmon harvest estimates are based on the mean annual harvest (5-year for Chinook and 10-year for coho salmon).

[e] Bering River coho and sockeye salmon harvest estimates are based on 10-year mean annual harvest.

[f] Formalized sibling model forecast procedures are used for Coghill and Eshamy District sockeye salmon runs. The Coghill District's wild pink and chum salmon harvest is included in the "General (PWS) districts" projection.

[g] The Unakwik District sockeye salmon harvest estimate is based on the 10-year mean annual harvest.

[h] Wally Noerenberg Hatchery chum and coho salmon harvest estimates include all on-site and remote release runs of chum and coho salmon.

[i] Main Bay Hatchery sockeye salmon harvest estimate includes all on-site and remote release runs of sockeye salmon.

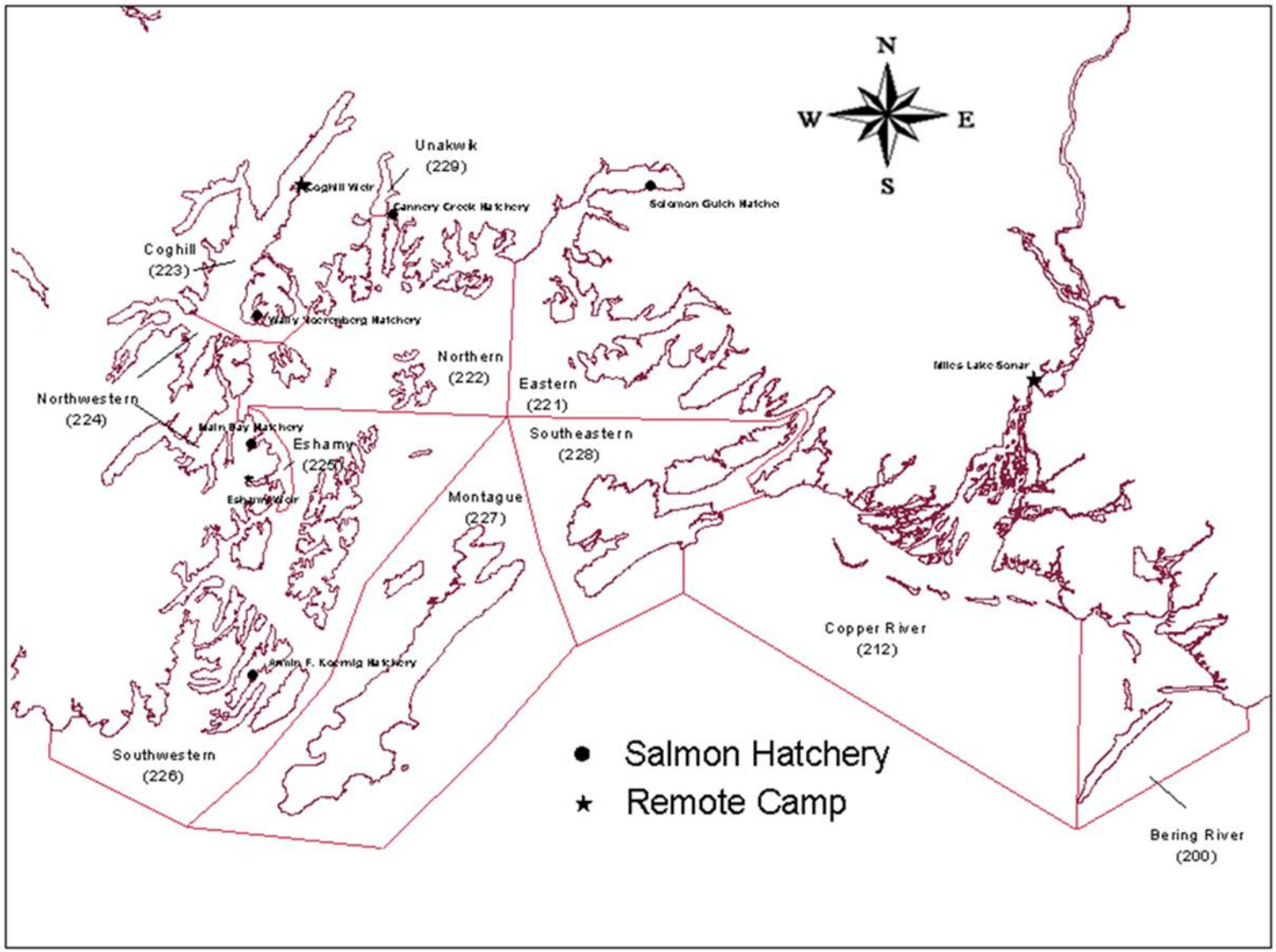

Figure 1.–Prince William Sound Management Area showing commercial fishing districts, salmon hatcheries, weir locations, and Miles Lake sonar camp.

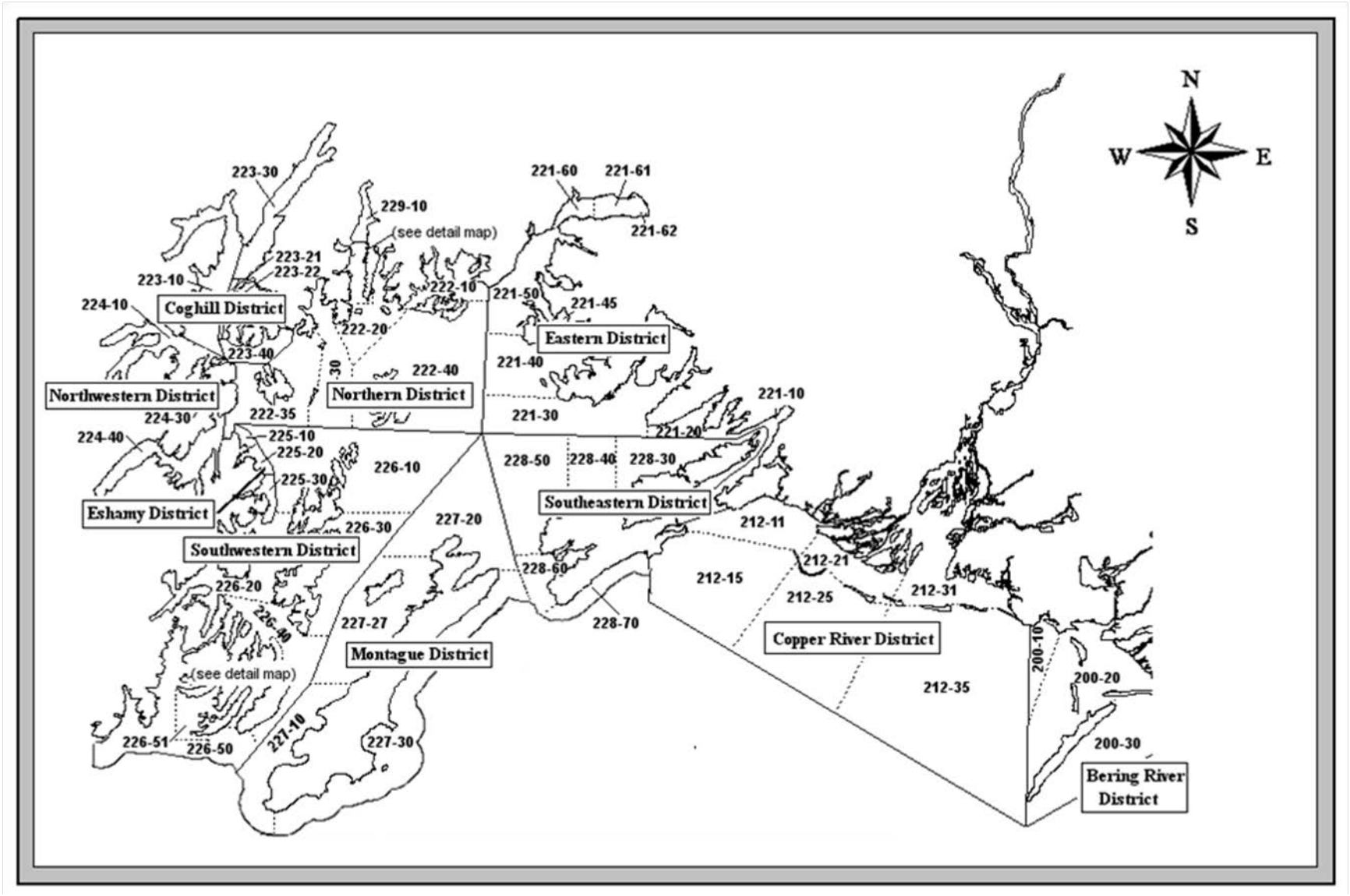

Figure 2.–Prince William Sound Management Area showing commercial fishing districts and statistical reporting areas.

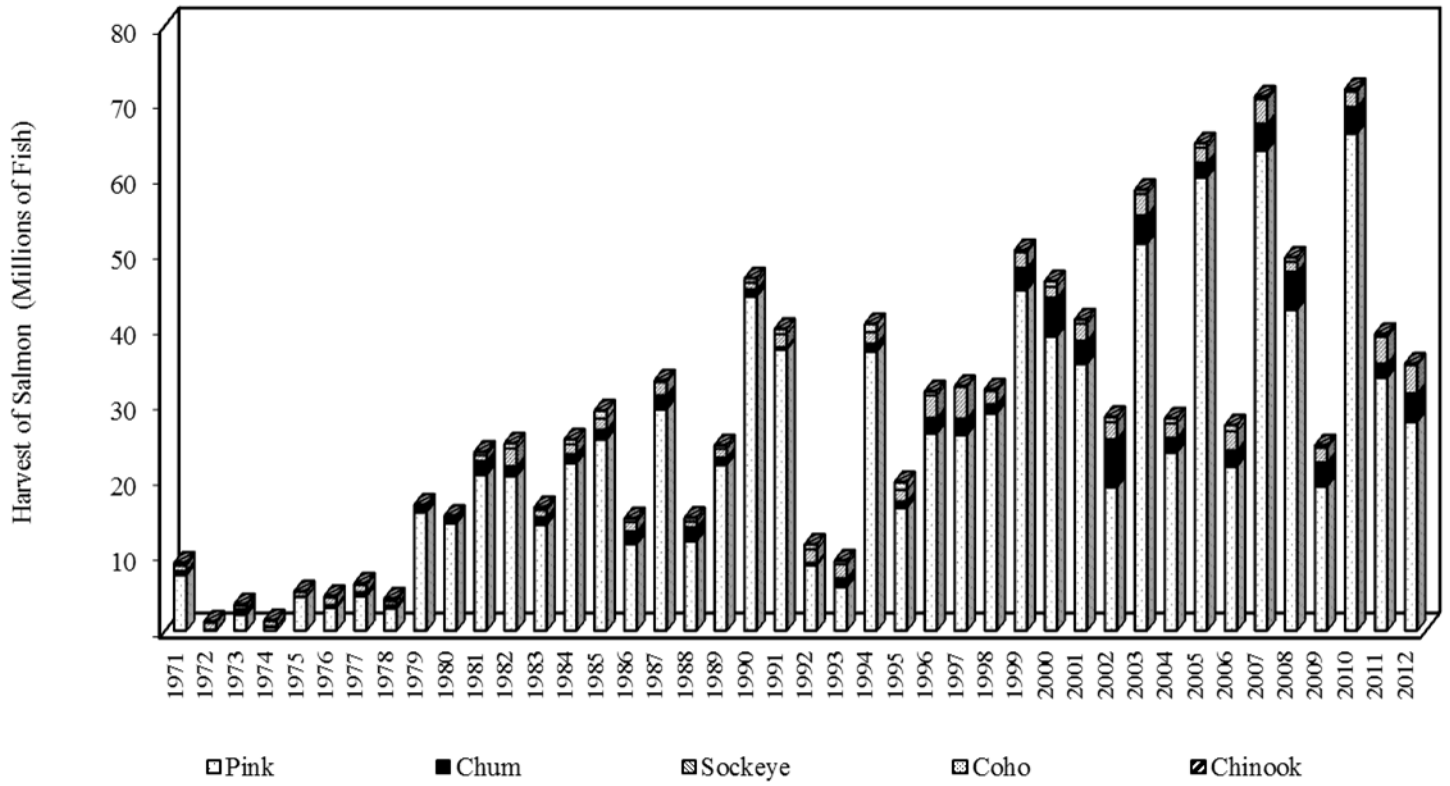

Figure 3.–Commercial salmon harvests in Prince William Sound, 1971–2012.

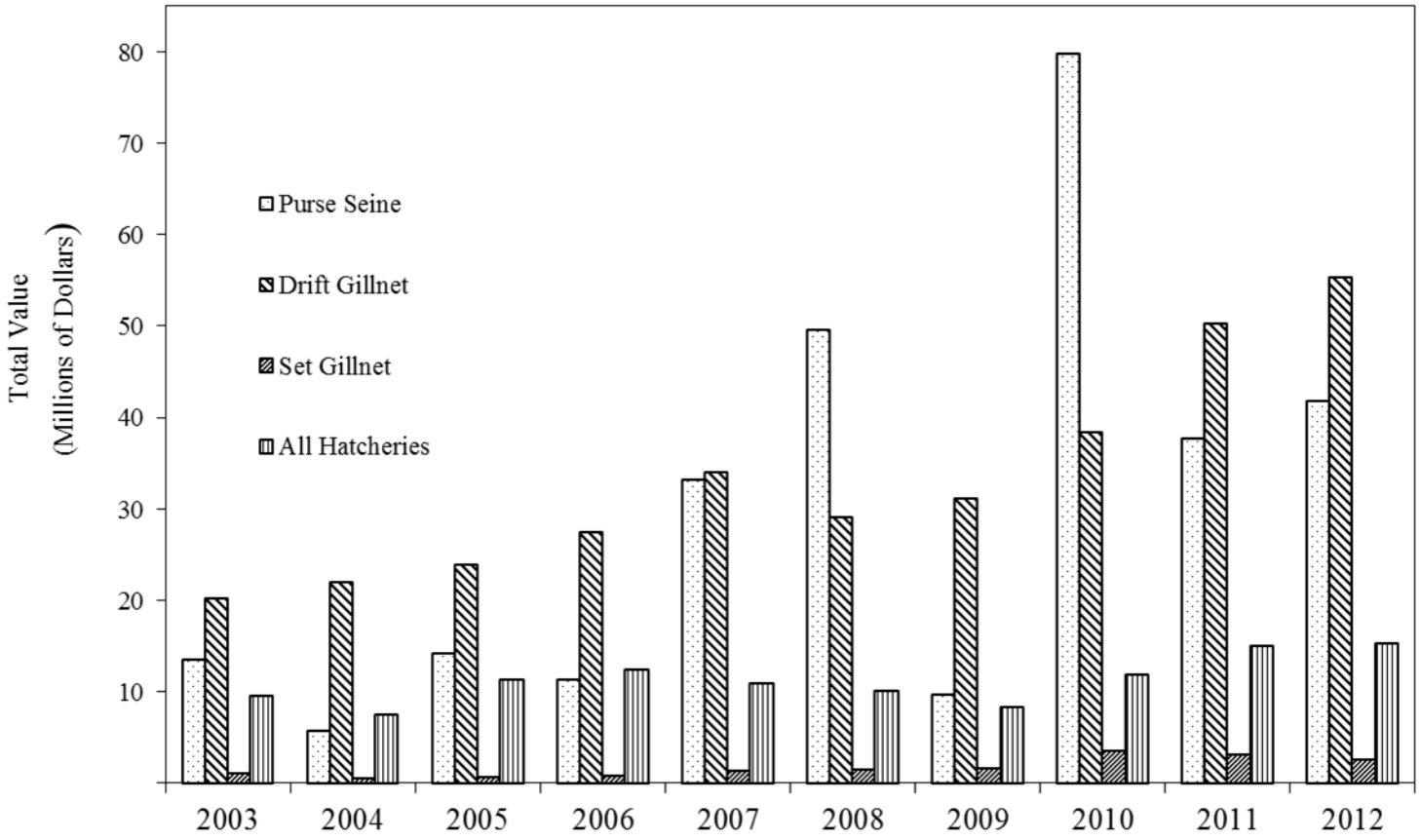

Figure 4.–Exvessel value of the commercial salmon harvest by gear type, 2003–2012.

APPENDIX A

Appendix A1.–Total estimated sockeye salmon runs to the Copper River by end user or destination, 2002–2012.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-year Average	2012
Commercial harvest[a]	1,248,503	1,188,052	1,048,004	1,331,664	1,496,754	1,901,773	320,815	896,621	636,214	2,052,432	1,212,083	1,866,541
Commercial, homepack[a]	1,138	4,077	525	1,785	1,539	2,023	2,172	6,528	7,064	9,070	3,592	7,985
Commercial, donated[a]	128	35	74	83	114	180	80	47	0	0	74	0
Educational drift gillnet permit[a]	151	0	0	42	16	62	29	8	61	23	39	200
Subsistence (Cordova, drift gillnet)[b]	3,067	1,607	1,822	830	4,355	6,148	3,969	1,764	1,980	1,783	2,733	4,270
Federal Subsistence (PWS/Chugach Nat'l Forest, dip net, spear, rod and reel)[b]	0	0	0	109	150	36	32	46	36	35	44	64
Subsistence (Batzulnetas, dip net, fish wheel or spear)[b]	208	164	182	0	0	1	1	0	106	9	67	101
Subsistence (Glennallen Subdistrict, dip net, fish wheel or spear)[c]	50,850	47,007	55,510	64,213	57,710	65,714	43,157	46,849	70,719	59,622	56,135	76,305
Federal Subsistence (Glennallen subdistrict, dip net, fish wheel or spear)[d]	7,950	13,616	17,704	19,973	18,348	17,642	14,475	14,033	14,134	15,753	15,363	16,487
Personal Use Reported (Chitina Subdistrict, dip net)[c]	85,968	80,796	107,312	120,013	123,261	125,126	81,359	90,035	138,487	128,052	108,041	127,143
Federal Subsistence (Chitina subdistrict, dip net)[d]	575	717	1,215	1,265	1,549	1,028	959	882	2,324	1,933	1,245	915
Upriver sport harvest[e]	7,761	7,108	6,464	8,135	14,297	23,028	11,431	13,415	14,743	7,727	11,411	14,069
Delta sport harvest[e]	798	631	952	656	113	1,704	1,225	1,014	1,342	838	927	1,225
Upriver spawning escapement[f]	581,469	471,090	448,075	528,816	600,378	624,437	491,516	477,327	524,692	621,545	536,935	980,462
Delta spawning escapement[g]	151,470	146,300	138,770	116,812	197,792	176,570	135,900	138,584	167,810	153,014	152,302	133,700
Hatchery broodstock/Excess[h]	62,361	45,024	6,618	92,455	97,192	28,648	44,865	43,409	157,980	59,589	63,814	65,348
Total estimated sockeye salmon run size	2,202,397	2,006,224	1,833,227	2,286,851	2,613,568	2,974,120	1,151,985	1,730,562	1,737,692	3,111,425	2,164,805	3,294,815

[a] Numbers are from fish ticket data. Homepack numbers for sockeye salmon are voluntarily reported, but are legally required.

[b] Data are reported harvest from returned state and federal subsistence permits.

[c] Data are expanded harvest from returned state and federal subsistence permits.

[d] Data are reported harvest, 2002–2004, and expanded harvest, 2005–2011, from returned state and federal subsistence permits.

[e] Upriver and Copper River Delta sport harvest data are from statewide sport fish harvest surveys.

[f] Beginning in 1999 sockeye salmon spawning escapement is based on the total number of fish past the Miles Lake sonar minus the Chinook salmon inriver midpoint abundance estimate, upriver subsistence, personal use, sport, hatchery broodstock and onsite hatchery surplus. Prior to 1999, upriver spawning escapement was based on the Miles Lake sonar passage (sockeye salmon only) minus upriver subsistence, personal use, sport, hatchery broodstock, and onsite hatchery surplus. The number of sockeye salmon past the Miles Lake sonar was determined by multiplying the total number of fish past the sonar by the percentage of sockeye salmon in the total upriver subsistence and personal use fisheries.

[g] Delta spawning escapement estimated by doubling the peak aerial survey index.

[h] Hatchery broodstock and onsite excess are from PWSAC 2012 a, b, and c.

Appendix A2.–Total estimated sockeye salmon runs to the Copper River by origin, 2002–2012.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-year Average	2012
Upriver wild contribution[a]	1,372,063	1,380,383	1,354,173	1,753,627	1,773,532	2,264,576	852,496	1,260,759	992,075	2,004,105	1,500,779	2,492,440
Delta wild contribution[b]	393,448	413,253	371,485	306,563	531,312	564,547	202,811	324,799	289,313	512,515	391,005	333,824
Gulkana contributions[c]	426,665	202,845	93,438	216,583	287,906	132,625	85,916	136,402	434,608	580,917	259,790	451,184
Total estimated sockeye salmon run size	2,192,176	1,996,481	1,819,097	2,276,773	2,592,750	2,961,747	1,141,223	1,721,959	1,715,995	3,097,537	2,151,574	3,277,449

[a] Beginning in 1999, the upriver wild sockeye contribution is estimated as the sum of the total number of sockeye salmon past the Miles Lake Sonar (total number of fish past the Miles Lake sonar minus the Chinook salmon inriver abundance estimate) and sockeye salmon captured in the Copper River commercial and subsistence harvests minus Gulkana Hatchery contributions to the Copper River (CR) commercial and subsistence fisheries, CR Delta wild stock, and CR Delta sport harvests. Prior to 1999, upriver wild sockeye salmon contribution was estimated as the sum of the total number of sockeye salmon past the Miles Lake sonar (total number of fish past the Miles Lake sonar multiplied by the percent of sockeye salmon harvested in upriver subsistence fisheries) and sockeye salmon captured in the CR commercial and subsistence harvests minus Gulkana Hatchery contributions to the CR commercial and subsistence fisheries, delta wild stock, and delta sport harvests.

[b] Delta wild sockeye salmon contribution is estimated as the total CR district harvest multiplied by proportion CR Delta sockeye salmon (delta escapement divided by the total number of sockeye salmon passed the Miles Lake sonar plus CR Delta escapement) then adding CR Delta escapement and CR Delta sport harvest.

[c] Gulkana Hatchery sockeye salmon contributions from 1995 to 2003 are based on CWT recovery; contributions from 2004 to 2011 are based on strontium marks from commercial, personal use, subsistence samples applied to reported harvest, and the historical average of mainstem and upper Copper River sport harvest times Gulkana Hatchery percent in personal use and subsistence fisheries. Gulkana Hatchery personal use and subsistence contribution estimates were calculated with reported harvest.

Appendix A3.–Total estimated Chinook salmon run to the Copper River by end user or destination, 2002–2012.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-year Average	2012
Commercial harvest[a]	38,734	47,721	38,191	34,624	30,278	39,095	11,437	9,457	9,645	18,500	27,768	11,764
Commercial, homepack[a]	773	1,073	539	760	779	1,019	537	876	906	1,282	854	853
Commercial, donated[a]	4	3	5	11	3	0	4	0	0	0	3	0
Educational drift gillnet permit[a]	25	0	0	92	11	70	47	50	31	6	33	6
Subsistence (Cordova, drift gillnet)[b]	549	710	1,106	260	779	1,145	470	212	276	212	572	237
Subsistence (Batzulnetas, dip net, fish wheel or spear)[b]	0	0	0	0	0	0	0	0	0	0	0	0
Subsistence (Glennallen Subdistrict, dip net, fish wheel or spear)[c]	3,653	2,538	3,346	2,229	2,769	3,276	2,381	2,493	2,099	2,319	2,710	2,095
Federal Subsistence (Glennallen subdistrict, dip net, fish wheel or spear)[d]	564	554	636	345	460	663	837	549	326	744	568	415
Personal Use harvests (Chitina Subdistrict, dip net)[c]	2,023	1,903	2,495	2,043	2,663	2,694	1,999	214	700	1,067	1,780	567
Federal Subsistence (Chitina subdistrict, dip net)[d]	33	18	7	22	18	28	23	9	18	13	19	5
Sport harvest[e]	5,098	5,717	3,435	4,093	3,425	5,123	3,618	1,355	2,409	1,753	3,603	2,852
Upriver spawning escapement[f]	21,502	34,034	30,645	21,528	58,454	34,565	32,485	27,781	16,771	27,993	30,576	25,002
Total estimated Chinook salmon run size	72,958	94,271	80,405	66,007	99,639	87,678	53,838	42,996	33,181	53,889	68,486	43,796

[a] Numbers are from fish ticket data.

[b] Data are reported harvest from returned state and federal subsistence permits.

[c] Data are expanded harvest from returned state and federal subsistence permits.

[d] Data are reported harvest, 2002–2004, and expanded harvest, 2005–2011, from returned state and federal subsistence permits.

[e] Upriver Chinook salmon sport harvest only; there is no Copper River Delta Chinook salmon sport harvest.

[f] Upriver Chinook salmon spawning escapement is estimated using the inriver abundance estimate and subtracting subsistence, personal use, and sport Chinook salmon harvests. Beginning in 1999, inriver abundance estimates were calculated using mark-recapture studies; prior to 1999 inriver abundance estimates were calculated using aerial and foot surveys.

Appendix A4.–Total commercial salmon harvest by species in the Copper River district, 1960–2012.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1960	14,052	593,824	118,395	375	314	726,960
1961	7,621	528,223	133,987	1,639	106	671,576
1962	14,792	677,626	174,628	1,880	513	869,439
1963	10,871	375,925	202,621	1,487	85	590,989
1964	12,751	699,548	242,666	548	62	955,575
1965	15,390	818,277	70,786	803	331	905,587
1966	11,422	1,005,615	116,147	717	115	1,134,016
1967	9,853	679,503	160,532	573	218	850,679
1968	9,743	573,270	230,867	4,343	473	818,696
1969	14,040	696,836	77,405	847	244	789,372
1970	19,375	1,115,695	161,892	645	687	1,298,294
1971	16,486	616,801	208,915	1,762	5,287	849,251
1972	22,250	727,144	103,021	2,304	717	855,436
1973	19,947	332,816	132,164	8,964	10,173	504,064
1974	18,980	607,766	46,625	9,839	664	683,874
1975	19,644	335,384	53,805	236	807	409,876
1976	31,479	865,195	111,900	3,392	178	1,012,144
1977	21,722	602,737	131,356	23,185	335	779,335
1978	29,062	249,872	220,338	3,512	2,233	505,017
1979	17,678	80,528	194,885	1,295	107	294,493
1980	8,454	18,908	225,299	3,966	198	256,825
1981	20,178	477,662	310,154	23,952	1,799	833,745
1982	47,362	1,177,632	454,763	7,154	1,177	1,688,088
1983	50,022	626,735	234,243	7,345	2,217	920,562
1984	38,957	900,043	382,432	32,194	6,935	1,360,561
1985	42,214	927,553	587,990	19,061	5,966	1,582,784
1986	40,670	780,808	295,980	3,016	17,614	1,138,088
1987	41,001	1,180,782	111,599	31,635	14,796	1,379,813
1988	30,741	576,950	315,568	2,775	11,022	937,056
1989	30,863	1,025,923	194,454	25,877	5,845	1,282,962
1990	21,702	844,778	246,797	1,596	7,545	1,122,418
1991	34,787	1,206,811	385,086	1,246	20,220	1,648,150
1992	39,810	970,938	291,627	1,664	5,807	1,309,846
1993	29,727	1,398,234	281,469	9,579	13,002	1,732,011
1994	47,061	1,152,220	677,633	12,079	19,055	1,908,048
1995	65,675	1,271,822	542,658	19,809	56,100	1,956,064
1996	55,646	2,356,365	193,042	6,372	25,533	2,636,958
1997	51,273	2,955,431	18,656	8,483	2,465	3,036,308
1998	68,827	1,341,692	108,232	20,829	5,022	1,544,602
1999	62,337	1,682,559	153,061	10,205	25,321	1,933,483
2000	31,259	880,334	304,944	9,804	5,363	1,231,704
2001	39,524	1,323,577	251,473	9,387	2,789	1,626,750
2002	38,734	1,248,503	504,223	3,677	31,627	1,826,764
2003	47,721	1,188,052	363,489	12,934	10,110	1,622,306
2004	38,191	1,048,004	467,859	5,175	3,386	1,562,615
2005	34,624	1,331,664	263,465	34,987	3,515	1,668,255
2006	30,278	1,496,754	318,285	30,844	17,203	1,893,364
2007	39,095	1,901,773	117,182	80,715	9,657	2,148,422
2008	11,437	320,815	202,621	1,437	1,279	1,705,827
2009	9,457	896,621	207,776	16,759	8,629	1,139,242
2010	9,645	636,214	210,621	21,149	15,694	893,323
2011	18,500	2,052,432	127,511	24,050	13,231	2,235,724
25-Year Average	37,117	1,291,570	274,373	16,123	13,369	1,679,281
10-Year Average	26,550	1,208,037	253,201	25,339	9,189	1,522,316
2012	11,764	1,866,541	130,261	6,011	2,733	2,017,310

Appendix A5.–Copper River District commercial drift gillnet salmon harvest by period, 2012.

		Emergency Order	Permits			Chinook		Sockeye		Coho		Pink		Chum	
Period [a]	Date	Issued	Hours	Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
01[b]	5/17	2-F-E-001-12	12	473	648	1,006	20,817	156,482	991,644	1	7	0	0	23	161
02[b]	5/21	2-F-E-002-12	12	403	675	1,293	27,126	219,474	1,472,427	0	0	0	0	11	66
03[b]	5/24	2-F-E-003-12	12	391	657	1,190	23,525	254,279	1,678,118	0	0	0	0	13	96
04[c]	5/28–5/29	2-F-E-004-12	36	476	891	1,659	33,708	152,778	999,930	0	0	0	0	333	2,264
05[c]	5/31–6/1	2-F-E-006-12	48	357	812	2,037	43,082	130,231	843,597	38	299	5	18	11,605	74,713
06[b]	6/4–6/5	2-F-E-008-12	36	392	742	1,636	34,381	85,716	548,219	7	42	5	20	847	5,384
07[b]	6/7–6/8	2-F-E-012-12	36	294	432	696	14,319	48,100	307,552	6	36	2	8	3,563	24,193
08[b]	6/11–6/12	2-F-E-015-12	36	189	389	850	19,300	63,933	421,282	0	0	11	36	1,469	10,088
09[b]	6/14–6/15	2-F-E-021-12	36	180	310	516	12,202	43,567	282,039	0	0	9	32	1,434	9,785
10[b]	6/18–6/19	2-F-E-025-12	24	161	240	210	4,974	29,957	195,713	5	45	0	0	220	1,510
11	6/21–6/22	2-F-E-030-12	24	109	207	291	7,872	48,748	320,367	2	16	0	0	40	269
12	6/25–6/26	2-F-E-032-12	36	146	299	132	3,073	92,314	616,238	9	59	3	9	310	2,121
13	6/28–6/29	2-F-E-036-12	36	166	362	104	2,420	80,241	525,941	99	709	80	317	1,091	7,536
14	7/2–7/4	2-F-E-038-12	48	196	498	70	1,676	160,824	1,020,587	241	1,700	161	728	3,727	25,991
15	7/5–7/7	2-F-E-041-12	48	129	202	23	601	54,433	354,995	28	207	139	579	1,105	7,730
16	7/9–7/11	2-F-E-048-12	48	174	474	21	445	135,437	888,607	426	2,923	28	106	620	4,356
17	7/12–7/14	2-F-E-050-12	48	108	158	6	133	37,689	243,296	409	2,703	111	380	475	3,193
18	7/16–7/18	2-F-E-053-12	48	138	257	9	207	38,258	252,169	566	3,930	506	1,801	225	1,550
19	7/19–7/20	2-F-E-055-12	36	99	153	5	99	18,800	121,615	111	761	825	3,202	100	699
20	7/23–7/24	2-F-E-061-12	36	53	70	1	27	6,684	42,804	114	703	1,279	5,678	79	555
21	7/26–7/27	2-F-E-064-12	36	45	55	2	41	5,390	32,827	499	3,208	1,463	5,617	23	141
22	7/30–7/31	2-F-E-066-12	36	27	27	1	15	2,467	15,017	847	5,251	1,124	4,602	19	153
23	8/2–8/3	2-F-E-068-12	36	1	1	[d]	[d]	[d]	[d]	[d]	[d]	[d]	[d]	0	[d]
24	8/6–8/7	2-F-E-070-12	36	4	4	0	0	137	854	178	1,249	84	254	0	0
25	8/9–8/10	2-F-E-072-12	36	7	8	0	0	83	558	641	4,929	96	302	0	0
26	8/13–8/14	2-F-E-074-12	36	11	13	0	0	179	1,088	1,475	11,198	36	142	0	0
27	8/16–8/17	2-F-E-077-12	24	50	63	1	21	209	1,368	6,385	49,723	18	55	0	0
28	8/20–8/21	2-F-E-102-12	24	139	168	2	20	85	510	14,695	117,780	4	14	1	6

-continued-

Appendix A5.–Page 2 of 2.

Period [a]	Date	Emergency Order Issued	Hours	Permits Fished	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
29	8/27–8/28	2-F-E-104-12	24	172	250	1	12	23	127	25,898	201,363	3	12	0	0
30	9/3–9/4	2-F-E-106-12	24	84	115	0	0	3	22	13,880	113,213	0	0	0	0
31	9/6–9/7	2-F-E-108-12	24	123	176	2	27	3	18	24,286	199,768	0	0	0	0
32	9/10–9/11	2-F-E-110-12	24	120	180	0	0	2	12	18,403	154,661	0	0	0	0
33	9/13–9/14	2-F-E-112-12	24	104	151	0	0	0	0	15,103	137,192	0	0	0	0
34	9/17–9/18	2-F-E-114-12, 2-F-E-132-12	36	37	53	0	0	0	0	5,609	49,737	0	0	0	0
35	9/20–9/22	2-F-E-133-12	48	1	1	[d]	[d]	[d]	[d]	[d]	[d]	[d]	[d]	[d]	[d]
36	9/24–9/26	2-F-E-135-12	48	0	0	0	0	0	0	0	0	0	0	0	0
37	9/27–9/29	2-F-E-136-12	48	0	0	0	0	0	0	0	0	0	0	0	0
38	10/1–10/3	2-F-E-136-12	48	2	2	[d]	[d]	[d]	[d]	[d]	[d]	[d]	[d]	[d]	[d]
39	10/04–10/06	2-F-E-137-12	48	0	0	0	0	0	0	0	0	0	0	0	0
40	10/08–10/10	2-F-E-137-12	48	0	0	0	0	0	0	0	0	0	0	0	0
Total			1,404	510	9,743	11,764	250,123	1,866,541	12,179,618	130,261	1,066,193	6,011	23,990	27,333	182,560
Average Weights							21.26		6.53		8.19		3.99		6.68

[a] Unless otherwise noted, all waters available to commercial salmon fishing were open in the Copper River District.

[b] Waters of the inside closure area described in 5 AAC 24.350(1)(B) were closed.

[c] Waters excluding the inside closure area described in 5 AAC 24.350(1)(B) and waters north of a line from Coffee Creek West at 60° 14.13’ N. lat, 144° 58.31’ W. long. to Coffee Creek East at 60° 14.19’ N. lat., 144° 58.01’ W. long. to Charlie Mohr North at 60° 15.15’ N lat, 144° 56.43’ W long to 60° 14.00’ N lat, 144° 55.50’ W long to 60° 13.50’ N lat, 144° 54.50’ W long to 60° 13.00’ N lat, 144° 43.00’ W long were open.

[d] Confidential data, less than 3 permit holders delivering.

Appendix A6.–Copper River District commercial drift gillnet salmon harvest by statistical week, 2012.

Week	Start Date	Hours	Permits		Chinook		Sockeye		Coho		Pink		Chum	
			Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
20	05/13	12	473	648	1,006	20,817	156,482	991,644	1	7	0	0	23	161
21	05/20	24	794	1,332	2,483	50,651	473,753	3,150,545	0	0	0	0	24	162
22	05/27	84	833	1,703	3,696	76,790	283,009	1,843,527	38	299	5	18	11,938	76,977
23	06/03	72	686	1,174	2,332	48,700	133,816	855,771	13	78	7	28	4,410	29,577
24	06/10	72	369	701	1,366	31,502	107,604	704,062	0	0	20	68	2,903	19,873
25	06/17	48	270	447	501	12,846	78,705	516,080	7	61	0	0	260	1,779
26	06/24	72	312	661	236	5,493	172,555	1,142,179	108	768	83	326	1,401	9,657
27	07/01	96	325	700	93	2,277	215,257	1,375,582	269	1,907	300	1,307	4,832	33,721
28	07/08	96	282	632	27	578	173,126	1,131,903	835	5,626	139	486	1,095	7,549
29	07/15	84	237	408	14	306	56,954	373,043	677	4,691	1,331	5,003	325	2,249
30	07/22	72	98	125	3	68	12,074	75,631	613	3,911	2,742	11,295	102	696
31	07/29	72	28	28	1	15	2,482	15,094	860	5,318	1,143	4,680	19	153
32	08/05	72	11	12	0	0	220	1,412	819	6,178	180	556	0	0
33	08/12	60	61	76	1	21	388	2,456	7,860	60,921	54	197	0	0
34	08/19	24	139	164	2	20	85	510	14,182	114,192	4	14	1	6
35	08/26	24	172	253	1	12	23	127	26,319	204,303	3	12	0	0
36	09/02	48	207	291	2	27	6	40	38,166	312,981	0	0	0	0
37	09/09	48	224	331	0	0	2	12	33,506	291,853	0	0	0	0
38	09/16	84	38	55	0	0	0	0	5,788	51,085	0	0	0	0
39	09/23	96	0	0	0	0	0	0	0	0	0	0	0	0
40	09/30	96	2	2	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
41	10/07	48	0	0	0	0	0	0	0	0	0	0	0	0
Total		1,404	510	9,743	11,764	250,123	1,866,541	12,179,618	130,061	1,064,179	6,011	23,990	27,333	182,560
Average Weights						21.26		6.53		8.18		3.99		6.68

[a] Confidential data, less than 3 permit holders delivering.

Appendix A7.–Daily salmon counts at Miles Lake sonar, 2012.

Date	Water Level	Daily sonar counts: North Bank	South Bank	Daily	Cumulative	0600 Count	Projected Daily	Minimum Inriver Passage Objective: Daily	Minimum Inriver Passage Objective: Cumulative	Maximum Inriver Passage Objective: Daily	Maximum Inriver Passage Objective: Cumulative
5/15	NA	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	0	N/A
5/16	NA	108	N/A	108	108	N/A	N/A	443	443	695	695
5/17	NA	576	N/A	576	684	N/A	N/A	701	1,144	1,101	1,796
5/18	NA	2,166	672	2,838	3,522	N/A	N/A	2,106	3,249	3,306	5,102
5/19	39.03	1,733	2,802	4,535	8,057	N/A	N/A	3,698	6,948	5,807	10,909
5/20	39.10	1,854	3,321	5,175	13,232	1,122	4,488	5,390	12,337	8,463	19,372
5/21	39.14	1,552	2,508	4,060	17,292	906	3,624	6,081	18,418	9,547	28,919
5/22	39.21	2,483	5,784	8,267	25,559	1,312	5,248	9,358	27,776	14,694	43,613
5/23	39.40	6,757	6,669	13,426	38,985	2,704	10,816	10,680	38,456	16,769	60,382
5/24	39.66	4,570	9,547	14,117	53,102	2,901	11,604	11,787	50,243	18,508	78,890
5/25	39.94	5,203	13,283	18,486	71,588	2,550	10,200	13,454	63,697	21,125	100,015
5/26	40.19	10,750	25,968	36,718	108,306	6,267	25,068	16,603	80,300	26,070	126,086
5/27	40.36	13,359	30,444	43,803	152,109	6,862	27,448	15,715	96,015	24,676	150,761
5/28	40.36	19,979	51,666	71,645	223,754	12,087	48,348	16,713	112,728	26,242	177,003
5/29	40.36	24,032	59,030	83,062	306,816	17,832	71,328	16,774	129,502	26,338	203,341
5/30	40.37	15,841	52,694	68,535	375,351	15,011	60,044	18,310	147,813	28,750	232,092
5/31	40.35	13,066	27,414	40,480	415,831	11,187	44,748	16,057	163,869	25,212	257,303
6/1	40.29	6,220	15,252	21,472	437,303	4,228	16,912	18,423	182,292	28,928	286,231
6/2	40.22	6,300	10,050	16,350	453,653	3,373	13,492	16,657	198,949	26,155	312,386
6/3	40.22	4,626	11,616	16,242	469,895	2,354	9,416	16,508	215,457	25,920	338,306
6/4	40.30	3,840	8,580	12,420	482,315	2,285	9,140	15,222	230,679	23,901	362,206
6/5	40.34	8,293	8,808	17,101	499,416	3,102	12,408	16,547	247,226	25,981	388,188
6/6	40.47	10,186	10,140	20,326	519,742	5,247	20,988	14,056	261,281	22,070	410,258
6/7	40.84	6,070	7,974	14,044	533,786	3,612	14,448	15,420	276,701	24,211	434,469
6/8	41.14	3,016	5,598	8,614	542,400	1,765	7,060	16,153	292,854	25,363	459,832
6/9	41.51	2,595	6,078	8,673	551,073	1,661	6,644	13,911	306,765	21,843	481,675
6/10	41.73	2,911	4,032	6,943	558,016	1,385	5,540	12,467	319,233	19,576	501,251
6/11	41.75	2,731	4,074	6,805	564,821	1,310	5,240	11,383	330,616	17,873	519,124
6/12	41.77	3,093	3,936	7,029	571,850	1,706	6,824	10,067	340,683	15,807	534,931
6/13	41.86	2,326	4,428	6,754	578,604	1,462	5,848	8,780	349,463	13,786	548,718
6/14	41.74	2,107	4,242	6,349	584,953	1,213	4,852	8,574	358,037	13,463	562,180
6/15	41.64	2,536	4,320	6,856	591,809	1,232	4,928	9,074	367,111	14,248	576,429
6/16	41.64	2,819	5,646	8,465	600,274	1,487	5,948	8,857	375,968	13,907	590,336
6/17	41.63	2,738	5,634	8,372	608,646	1,745	6,980	8,773	384,740	13,774	604,110
6/18	41.54	2,528	5,826	8,354	617,000	2,132	8,528	8,500	393,241	13,347	617,457
6/19	41.64	2,829	6,984	9,813	626,813	1,927	7,708	8,781	402,022	13,788	631,245
6/20	41.89	2,811	9,846	12,657	639,470	2,043	8,172	8,355	410,377	13,119	644,363
6/21	42.27	2,015	12,480	14,495	653,965	2,746	10,984	8,137	418,513	12,776	657,140

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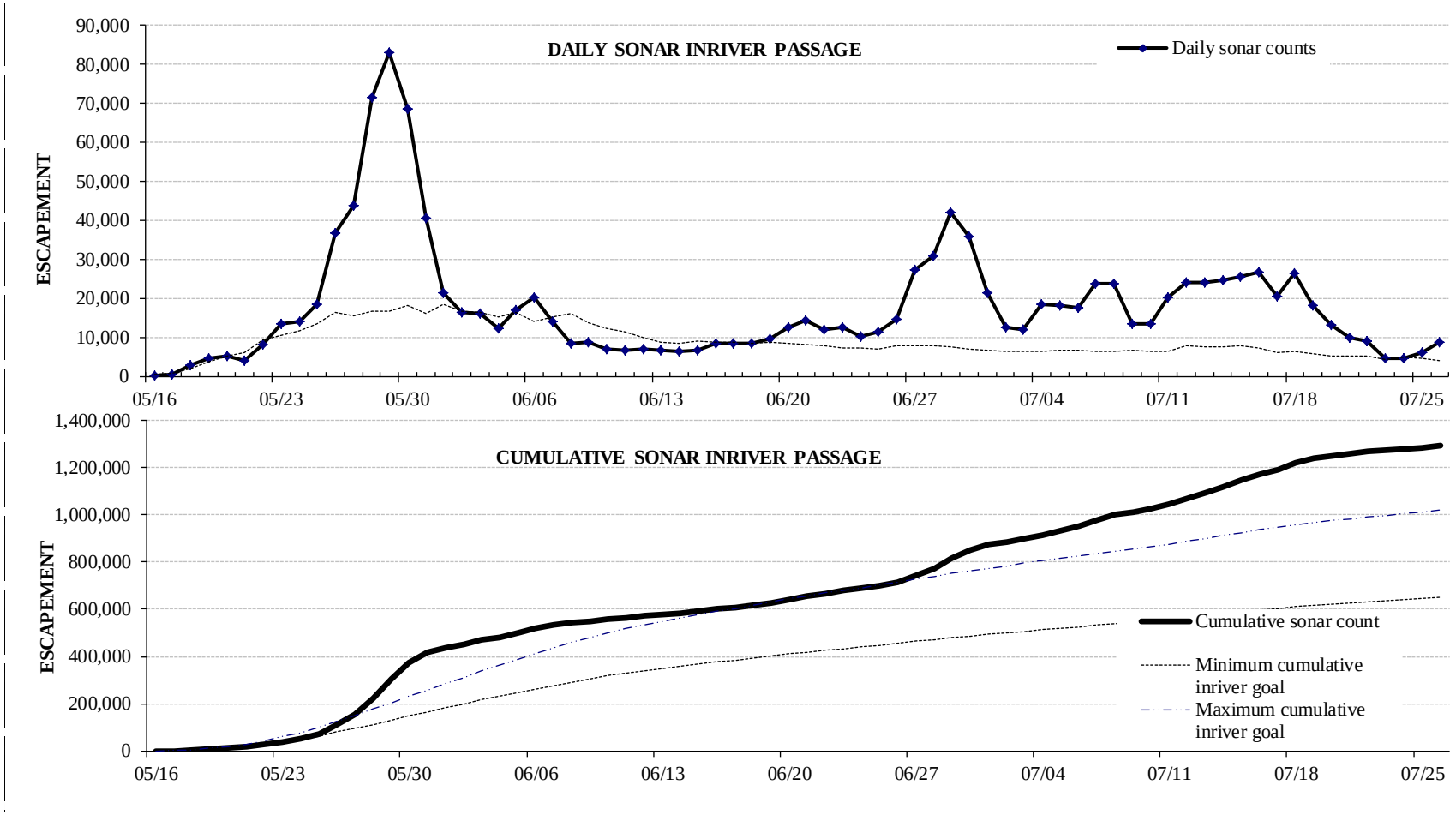
Date	Water Level	Daily sonar counts: North Bank	South Bank	Daily	Cumulative	0600 Count	Projected Daily	Minimum Inriver Passage Objective: Daily	Minimum Inriver Passage Objective: Cumulative	Maximum Inriver Passage Objective: Daily	Maximum Inriver Passage Objective: Cumulative
6/22	42.46	1,379	10,710	12,089	666,054	2,833	11,332	7,802	426,316	12,251	669,391
6/23	42.86	1,346	11,400	12,746	678,800	2,959	11,836	7,293	433,609	11,452	680,843
6/24	43.21	1,460	8,790	10,250	689,050	2,237	8,948	7,242	440,851	11,371	692,213
6/25	43.43	2,440	8,982	11,422	700,472	2,806	11,224	7,158	448,009	11,240	703,453
6/26	43.63	1,957	12,786	14,743	715,215	2,710	10,840	7,986	455,996	12,540	715,993
6/27	43.61	3,575	23,658	27,233	742,448	6,390	25,560	8,035	464,031	12,617	728,610
6/28	43.46	1,943	28,950	30,893	773,341	7,126	28,504	7,879	471,909	12,371	740,981
6/29	43.02	6,957	35,280	42,237	815,578	10,088	40,352	7,739	479,648	12,151	753,132
6/30	42.60	4,898	31,050	35,948	851,526	8,488	33,952	7,145	486,794	11,219	764,351
7/1	42.49	2,921	18,450	21,371	872,897	5,037	20,148	6,791	493,585	10,663	775,014
7/2	42.46	1,849	10,686	12,535	885,432	2,748	10,992	6,299	499,884	9,890	784,905
7/3	42.44	1,254	10,896	12,150	897,582	2,351	9,404	6,424	506,307	10,086	794,991
7/4	42.45	3,243	15,414	18,657	916,239	3,483	13,932	6,545	512,852	10,276	805,267
7/5	42.47	3,178	14,934	18,112	934,351	3,451	13,804	6,686	519,538	10,499	815,766
7/6	42.34	3,551	14,010	17,561	951,912	2,850	11,400	6,765	526,303	10,622	826,388
7/7	42.14	4,948	18,990	23,938	975,850	4,416	17,664	6,400	532,703	10,049	836,437
7/8	42.10	4,516	19,260	23,776	999,626	5,413	21,652	6,516	539,219	10,231	846,668
7/9	42.11	2,574	10,998	13,572	1,013,198	3,073	12,292	6,626	545,844	10,403	857,071
7/10	42.00	2,458	11,094	13,552	1,026,750	2,508	10,032	6,518	552,362	10,234	867,306
7/11	41.89	5,389	15,018	20,407	1,047,157	4,726	18,904	6,421	558,784	10,083	877,388
7/12	41.77	5,664	18,372	24,036	1,071,193	5,665	22,660	7,895	566,679	12,397	889,785
7/13	41.67	8,752	15,342	24,094	1,095,287	5,413	21,652	7,556	574,234	11,864	901,649
7/14	41.63	7,359	17,489	24,848	1,120,135	5,707	22,828	7,606	581,840	11,942	913,591
7/15	41.67	8,548	17,016	25,564	1,145,699	3,823	15,292	7,918	589,758	12,432	926,023
7/16	41.83	6,056	20,856	26,912	1,172,611	6,250	25,000	7,456	597,213	11,707	937,730
7/17	41.96	4,942	15,606	20,548	1,193,159	4,663	18,652	6,137	603,350	9,636	947,366
7/18	42.09	6,309	20,130	26,439	1,219,598	3,976	15,904	6,476	609,827	10,169	957,535
7/19	42.25	3,912	14,454	18,366	1,237,964	4,264	17,056	5,763	615,590	9,049	966,584
7/20	42.43	3,633	9,606	13,239	1,251,203	3,068	12,272	5,344	620,933	8,391	974,974
7/21	42.69	2,708	7,392	10,100	1,261,303	1,723	6,892	5,334	626,267	8,375	983,350
7/22	43.07	1,978	6,996	8,974	1,270,277	1,855	7,420	5,121	631,389	8,041	991,391
7/23	43.29	962	3,630	4,592	1,274,869	1,208	4,832	4,464	635,853	7,010	998,401
7/24	43.32	1,166	3,384	4,550	1,279,419	934	3,736	4,930	640,783	7,740	1,006,141
7/25	43.21	1,622	4,458	6,080	1,285,499	1,265	5,060	4,589	645,372	7,206	1,013,347
7/26	43.11	1,653	7,248	8,901	1,294,400	1,922	7,688	4,082	649,454	6,410	1,019,756

Appendix A8.–Minimum and maximum inriver sonar goal versus actual daily and cumulative salmon passage, Miles Lake Sonar, 2012.



Appendix A9.–Inriver salmon passage at the Mile Lake sonar, 1978–2012.

Year	Total	Rank
1978	107,011	35
1979	248,709	34
1980	283,856	33
1981	535,263	27
1982	467,306	30
1983	545,724	25
1984	536,806	26
1985	436,313	32
1986	457,421	31
1987	480,917	29
1988	488,398	28
1989	607,797	19
1990	581,859	23
1991	579,435	24
1992	601,952	20
1993	833,387	12
1994	715,577	15
1995	599,265	21
1996	906,239	7
1997	1,148,079	2
1998	866,957	8
1999	850,951	10
2000	587,497	22
2001	833,569	11
2002	819,794	13
2003	700,543	17
2004	669,514	18
2005	855,125	9
2006	959,706	3
2007	919,600	5
2008	718,344	14
2009	709,748	16
2010	923,811	4
2011	914,231	6
10-Year Average	819,042	
2012	1,294,400	1

Appendix A10.–Anticipated and actual semi-weekly harvest of sockeye, Chinook and coho salmon in the Copper River district drift gillnet fishery, 2012.

Semi-Weekly Date		Fishing Time (Hours)	Anticipated Sockeye salmon Harvest [a]	Actual Sockeye salmon Harvest	Anticipated Chinook salmon Harvest[b]	Actual Chinook salmon Harvest	Anticipated Coho salmon Harvest [c]	Actual Coho salmon Harvest
5/16	Wed	0	20,780	0	1,921	0	0	0
5/19	Sat	12	31,726	156,482	2,122	1,006	0	1
5/23	Wed	12	93,558	219,474	3,455	1,293	1	0
5/26	Sat	12	83,932	254,279	2,145	1,190	10	0
5/30	Wed	36	110,879	152,778	2,550	1,659	13	0
6/02	Sat	48	85,398	130,231	1,847	2,037	8	38
6/06	Wed	36	104,395	85,716	1,953	1,636	5	7
6/09	Sat	36	52,802	48,100	996	696	7	6
6/13	Wed	36	58,100	63,933	1,069	850	26	0
6/16	Sat	36	46,376	43,567	613	516	30	0
6/20	Wed	24	51,802	29,957	523	210	57	5
6/23	Sat	24	41,689	48,748	232	291	86	2
6/27	Wed	36	59,142	92,314	246	132	216	9
6/30	Sat	36	40,873	80,241	89	104	170	99
7/04	Wed	48	54,740	160,824	89	70	276	241
7/07	Sat	48	44,562	54,433	54	23	247	28
7/11	Wed	48	59,288	135,437	34	21	401	426
7/14	Sat	48	41,935	37,689	17	6	569	409
7/18	Wed	48	44,702	38,258	16	9	1,047	566
7/21	Sat	36	29,184	18,800	9	5	883	111
7/25	Wed	36	24,336	6,684	7	1	1,025	114
7/28	Sat	36	12,571	5,390	2	2	1,119	499
8/01	Wed	36	13,442	2,467	2	1	2,049	847
8/04	Sat	36	6,266	15	1	0	2,342	13
8/08	Wed	36	6,625	137	1	0	6,012	178
8/11	Sat	36	3,990	83	1	0	7,239	641

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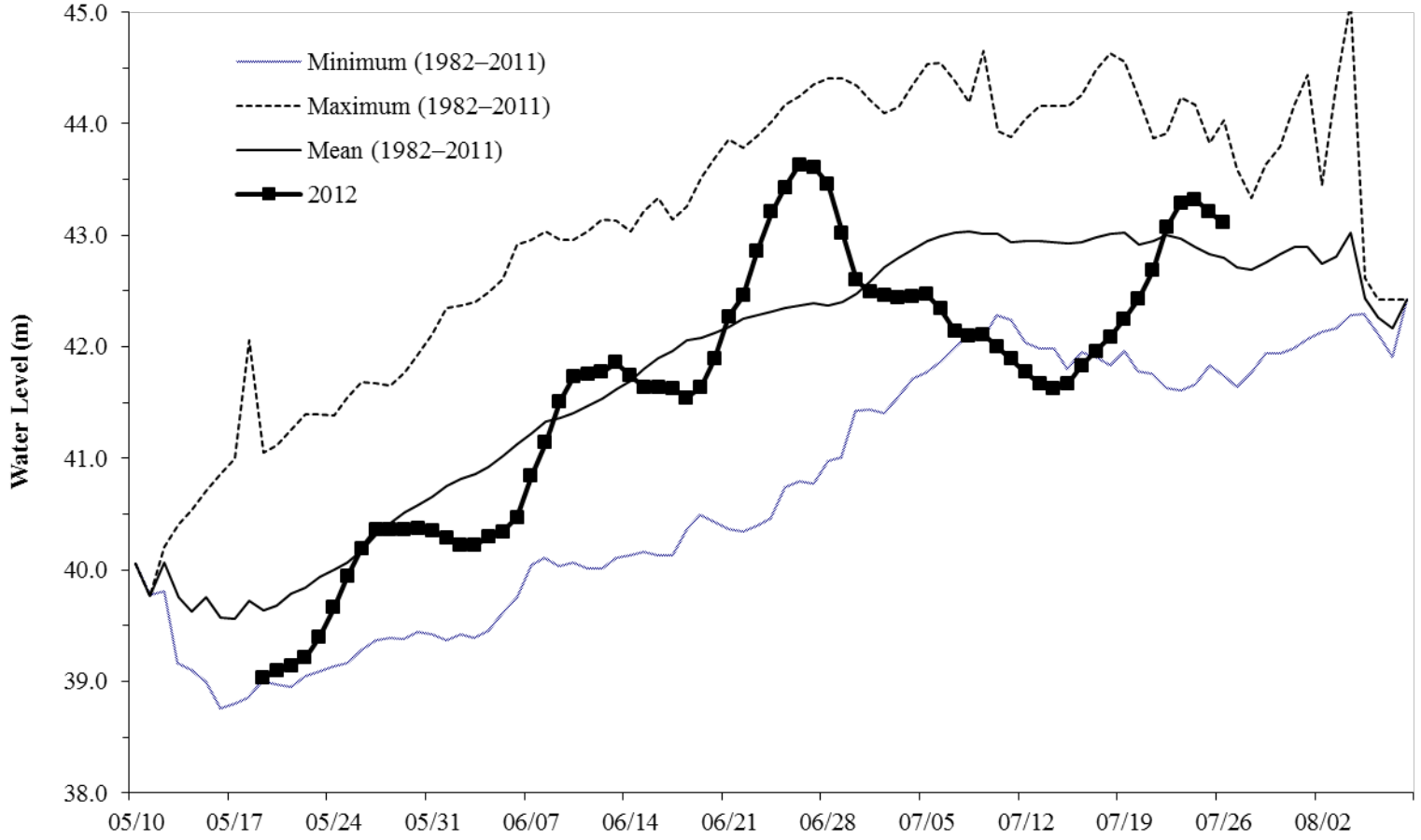
Semi-Weekly Date		Fishing Time (Hours)	Anticipated Sockeye salmon Harvest [a]	Actual Sockeye salmon Harvest	Anticipated Chinook salmon Harvest[b]	Actual Chinook salmon Harvest	Anticipated Coho salmon Harvest [c]	Actual Coho salmon Harvest
8/15	Wed	36	2,848	179	1	0	13,049	1,475
8/18	Sat	24	1,518	209	1	1	15,592	6,385
8/22	Wed	24	966	85	0	2	23,444	14,695
8/25	Sat	0	648	0	0	0	25,085	
8/29	Wed	24	394	23	1	1	33,077	25,898
9/01	Sat	0	232	0	0	0	26,950	
9/05	Wed	24	174	3	0	0	33,202	13,880
9/08	Sat	24	75	3	0	2	26,021	24,286
9/12	Wed	24	23	2	0	0	22,641	18,403
9/15	Sat	24	19	0	0	0	16,322	15,103
9/19	Wed	36	0	0	0	0	10,826	5,609
9/22	Sat	48	0	0	0	0	5,192	87
9/26	Wed	48	0	0	0	0	4,288	0
9/29	Sat	48	0	0	0	0	1,118	0
10/03	Wed	48	0	0	0	0	633	200
10/06	Sat	48	0	0	0	0	360	0
10/10	Wed	48	0	0	0	0	99	0
10/13	Sat	0	0	0	0	0	6	0
Total		1,404	1,229,989	1,866,541	20,000	11,764	281,742	130,261

[a] Sockeye salmon anticipated harvest is based on the midpoint preseason forecast (1,183,419) and the 1998–2007 harvest timing.

[b] Chinook salmon anticipated harvest is based on the preseason harvest forecast (9,211) and the 1998–2007 harvest timing. This harvest forecast is the total run forecast minus the lower escapement goal threshold times the mean commercial exploitation rate. Therefore, the Chinook salmon harvest should be considered a maximum harvest because the escapement goal is a lower threshold.

[c] Coho salmon anticipated harvest is based on the midpoint preseason harvest forecast (293,500) and the 1973–2009 harvest timing.

Appendix A11.–Water stage height at the Million Dollar Bridge, 2012.



Appendix A12.–Aerial escapement indices by statistical week and location for sockeye salmon returning to the Copper River Delta, 2012.

System [a]	Weekly Escapement Indices (Statistical Week Ending Date Listed)[b] 6/16	6/23	6/30	7/14	7/21	8/4	8/11	8/18	9/1	9/15	10/13	Site[c]	System[d]	Anticipated, (by drainage)
Eyak River														
Eyak River	100	2,500	1	1,900	3,000	0	10	50	200	0	NC	50	27,650	9,972 to 23,571
West Shore Beaches	150	2,750	475	700	1,000	1,750	2,300	5,100	1,500	400	NC	5,100		
East Shore Beaches	400	5,900	2,400	780	9,200	3,600	2,850	4,700	6,300	5,700	NC	4,700		
Middle Arm Beaches [e]	500	1,400	450	2,300	1,800	1,250	3,000	4,800	5,500	6,500	0	4,800		
North Shore Beaches	0	300	25	200	1,200	30	2,000	8,700	2,700	100	0	8,700		
Hatchery Creek Delta	150	500	250	500	500	5	900	500	1,000	400	0	500		
Hatchery Creek	10	75	50	300	350	0	100	500	1,300	1,000	0	500		
Power Creek Delta	0	200	300	100	550	0	3,000	3,000	2,100	700	0	3,000		
Power Creek	0	0	200	2,700	1,900	15	300	300	400	400	0	300		
Ibeck Creek														
Ibeck Creek	0	50	0	100	0	300	870	600	75	0	0	870	870	
Alaganik Slough														
Alaganik Slough	0	0	65	500	250	0	10	10	0	0	0	250	7,825	8,359 to 19,758
McKinley Lake	0	0	1,170	6,200	7,500	1,250	1,750	3,100	1,500	1,200	300	7,500		
Salmon Creek West Fork	0	15	0	0	0	300	NS	3,500	3,000	2,000	0	0		
Salmon Creek East Fork	0	0	0	0	75	0	NS	500	210	0	0	75		
26/27 Mile Creek														
26/27 Mile Creek	0	10	25	15	150	75	320	350	150	200	NS	350	350	2,182 to 5,157
39 Mile Creek														
39 Mile Creek	0	15	75	650	2,200	760	3,000	900	500	0	NS	3,000	3,000	5,772 to 13,642
Goat Mountain														
Goat Mountain Creek	0	0	2	0	130	0	200	1,925	200	200	NS	1,925	1,925	549 to 1,298
Pleasant Creek														
Pleasant Creek	1,300	2,300	675	1,450	1,600	0	300	550	40	0	0	2,300	2,300	1,075 to 2,542
Martin River														
Martin River - Lower	0	60	0	0	100	83	70	20	0	0	0	0	0	
Ragged Point River	0	30	0	950	960	650	1,000	100	0	0	0	0	2,500	
Ragged Point Lake Outlet	NS	NS	NS	NS	1,000	0	NS	100	20	0	0	0		
Ragged Point Lake	NS	NS	NS	NS	0	80	NS	1,500	700	2,500	1,700	2,500		
Martin River - Upper [e]	250	415	75	100	100	0	50	50	50	0	0	0	0	
Martin Lake Outlet	0	0	0	0	100	0	50	500	0	0	0	500	3,850	17,598 to 41,596
Martin Lake	0	600	1	0	2,220	75	175	1,950	1,200	0	200	1,950		
Martin Lake Feeders	NS	0	25	350	1,600	750	550	1,400	200	400	0	1,400		
Pothole River	NS	NS	NS	0	100	5	100	400	10	0	0	400	6,900	
Pothole Lake	NS	NS	NS	0	75	40	150	6,500	6,000	2,500	2,000	6,500		
Little Martin River	0	1,020	70	200	250	10	60	10	0	0	0	10	3,510	
Little Martin Lake	0	0	0	100	1,850	950	800	3,500	1,300	700	50	3,500		

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System [a]	Weekly Escapement Indices (Statistical Week Ending Date Listed)[b] 6/16	6/23	6/30	7/14	7/21	8/4	8/11	8/18	9/1	9/15	10/13	Site[c]	System[d]	Anticipated, (by drainage)
Tokun														
Tokun Springs	0	10	0	0	250	100	50	1,000	20	500	0	1,000	5,500	5,352 to 12,649
Tokun River	0	600	50	50	675	520	1,000	400	900	600	0	400		
Tokun Lake Outlet	0	0	0	200	100	0	500	100	0	50	0	100		
Tokun Lake	0	300	120	50	2,700	1,600	1,000	4,000	800	1,200	100	4,000		
Martin River Slough														
Martin River Slough	0	670	460	370	650	35	NS	300	0	0	0	670	670	4,141 to 9,787
Total	2,860	19,720	6,964	20,765	44,135	14,233	26,465	60,915	37,875	27,250	4,350	66,850	66,850	
Lower SEG	7,270	14,273	17,627	30,055	31,424	32,568	24,976	26,465	19,762	12,467	2,611			55,000
Average SEG, (avg. antic. esc.)	11,157	21,902	27,050	46,121	48,222	49,977	38,326	40,611	30,326	19,131	4,006			84,400
Upper SEG	17,184	33,736	41,665	71,040	74,276	76,979	59,034	62,553	46,711	29,467	6,170			130,000

[a] The system represents the majority of known sockeye salmon spawning locations within the Copper River Delta.

[b] The surveys provide information about the relative strength of escapement among years and within a year, time to spawning sites and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement but have served that purpose in the absence of any other escapement estimating method.

[c] Where the survey site is a terminal spawning area, the peak count is used. However, if the site is a schooling area for migratory fish bound for sites further upstream, the count which minimizes possible duplicate of counts across dates is selected.

[d] The sum of the indices by site within a system.

[e] Site typically has a protracted run timing or two temporally segregated spawning populations at one location. Aerial counts from more then one day may be used in the escapement index if the surveyor indicates these counts represented different fish.

Appendix A13.–Copper River and Bering River area sockeye salmon escapement indices, 2002–2012.

Stream/Lake [a,b]	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-yr Average	2012
Eyak Lake	13,375	12,900	14,300	9,130	26,290	28,640	9,290	11,980	25,000	25,715	17,662	23,350
Hatchery Creek	1,700	0	500	290	2,700	980	560	680	870	1,500	978	1,000
Power Creek	1,600	850	1,500	566	2,320	1,030	220	260	1,853	2,400	1,260	3,300
Ibek Creek	0	475	2,300	500	620	142	41	100	10	475	466	870
McKinley Lake	4,200	3,200	4,500	360	4,306	3,740	3,510	3,520	2,980	3,950	3,427	7,750
Salmon Creek	4,900	1,800	7,400	7,260	4,660	2,630	820	500	1,370	1,910	3,325	75
26/27 Mile Creek	850	475	1,125	3,000	3,200	700	8	0	0	870	1,023	350
39 Mile Creek	10,000	7,800	2,600	2,900	2,700	2,710	2,950	160	620	1,500	3,394	3,000
Goat Mountain	70	0	700	1,250	1,450	363	100	30	140	50	415	1,925
Pleasant Creek	2,425	6,850	3,525	50	6,600	4,860	4,920	2,610	3,460	7,600	4,290	2,300
Martin River	700	3,425	2,275	800	1,570	9,270	6,440	2,610	2,992	2,300	3,238	0
Ragged Pt. River/Lake	3,375	4,750	1,975	500	3,050	3,870	3,430	610	1,010	2,700	2,527	2,500
Martin Lake	10,600	18,900	17,300	23,300	23,300	4,200	8,970	19,071	19,660	9,650	15,495	3,850
Pothole Lake	8,400	1,500	1,350	1,200	5,600	2,430	5,800	2,540	4,440	550	3,381	6,900
L. Martin Lake	2,540	2,175	1,610	1,500	600	450	1,060	421	680	3,700	1,474	3,510
Tokun Lake/River	6,500	3,600	3,775	1,800	4,280	16,920	18,321	22,680	15,480	9,637	10,299	5,500
Martin River Slough	4,500	4,450	2,650	4,000	5,650	5,350	900	1,520	2,270	2,000	3,329	670
Copper River Delta Total	75,735	73,150	69,385	58,406	98,896	88,285	67,340	69,292	82,835	76,507	75,983	66,850
Upper Copper River [c]	581,469	471,090	448,075	528,816	600,378	624,437	491,516	477,327	524,692	621,545	536,935	980,462
Copper River District Total	657,204	544,240	517,460	587,222	699,274	712,722	558,856	546,619	607,527	698,052	612,918	1,047,312
Bering River/Lake	19,540	32,075	22,550	19,890	9,310	8,550	17,545	11,250	3,280	15,060	15,905	15,950
Shepherd Creek	60	205	195	1,220	60	0	180	91	46	4,800	686	1,400
Stillwater Creek	350	375	500	0	140	450	111	190	81	175	237	170
Kushtaka Lake	265	185	15	230	61	40	100	90	140	530	166	370
Katalla River	4,500	17,000	1,875	9,550	5,100	12,130	260	1,850	820	7,965	6,105	400
Bering River Area Total	24,715	49,840	25,135	30,890	14,671	21,170	18,196	13,471	4,367	28,530	23,099	18,290
Copper/Bering River Total	681,919	594,080	542,595	618,112	713,945	733,892	577,052	560,090	611,894	726,582	636,016	1,065,602

[a] This table is based on peak aerial survey indices and sonar counts for the majority of known sockeye salmon spawning areas in the Copper and Bering river deltas. These indices are not intended to provide a true estimate of total escapement but rather a comparable index, based upon the best data available, across years.

[b] The stream/lake represents the combined survey sites corresponding to the "system" designations.

[c] Upriver escapement index from Miles Lake sonar counts minus Chinook salmon inriver abundance estimate, upriver harvests, and hatchery escapement and broodstock.

Appendix A14.–Aerial survey indices of sockeye salmon escapement to the upper Copper River drainage, 1998–2012.

Location	Yearly Survey Indices [a]															Anticipated
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Indices [b]
Mentasta Lake	6,100	715	1,200	13,000	5,400	4,800	6,000	7,090	7,790	8,507	3,379	3,320	2,870	27,000	9,000	3,277
Fish Creek–Mentasta	1,400	450	800	3,500	900	–	–	3,330	3,700	323	1,440	680	400	91	300	963
Bad Crossing 1 & 2	7,800	195	19	2,000	157	90	30	5,120	620	1,683	520	1,691	1,390	742	261	2,604
Suslota Lake	1,060	0	3,000	2,500	1,500	2,750	1,975	1,230	1,300	30	86	320	6	350	55	1,416
Tanada Lake	–	350	3,200	200	950	0	3,950	683	30	563	986	1,290	NS	800	1,715	3,849
Dickey Lake	350	11	0	1	0	0	10	55	185	71	37	20	3	59	26	115
Keg Creek	160	125	0	1	30	38	0	7	190	0	1	423	0	0	15	725
Swede Lake	770	270	135	500	150	325	225	7	2,570	731	343	109	320	137	400	531
Mahlo Creek	12,300	325	1,000	400	5,000	6,850	500	1,950	5,000	14,512	10,261	11,735	4,570	292	10,100	2,648
Mendeltna Creek	–	120	2,800	800	1,875	1,200	50	318	700	473	727	1,945	1,550	760	1,085	2,470
St. Anne Creek	4,100	1,300	1,100	300	3,500	3,750	970	1,692	6,560	11,970	14,000	8,123	2,420	1,751	5,800	4,888
Tonsina Lake	–	–	–	–	–	–	0	–	20	20	3	0	–	0	15	1,080
Long Lake	–	–	–	–	–	–	–	–	1,400	505	382	14	10	290	375	1,577
Tana River	–	–	–	–	–	250	–	–	1,392	312	434	19	100	40	410	1,345
Salmon Creek (Bremner)	–	0	500	1,500	1,400	300	–	217	790	750	3,500	530	340	276	1,000	825
Fish Lake	4,900	1,880	5,000	5,000	125	1,300	0	281	7,250	1,066	158	0	89	1,008	35	6,418
Mud Creek.– Summit Lake	700	820	140	450	2,800	3,900	40		1,800	2,705	11,410	0	2,759	211	870	7,445
Paxson Inlet–Mud Creek	15,200	5,700	2,200	7,000	4,800	2,800	2,200	363	2,470	9,317	4,665	2,720	2,301	1,520	7,900	6,560
Mud Creek and Lake	–	20	30	300	30	75	5	145	310	2	10	0	20	2	10	172
Paxson Lake Outlet	200	1,800	1,000	200	140	–	5	155	270	324	596	0	560	1,700	350	2,661
Totals	55,040	14,081	22,124	37,652	28,757	28,428	15,960	22,643	44,347	53,864	52,938	32,939	19,708	37,029	39,722	51,569

[a] Escapement numbers are based on peak aerial survey indices and weir counts from the majority of known spawning areas in the upper Copper River drainage. The indices are not intended to provide true estimates of escapement for these stocks, but rather a comparable index, based on the best data available, across years. Missing counts are generally a result of bad weather, high water or other factors that prevented surveys for a given year.

[b] Calculated using the 1983–1992 average.

Appendix A15.–Estimated age and sex composition of sockeye salmon harvested in the Copper River District commercial common property drift gillnet fishery, 2012.

Strata Combined:	05/17 – 10/10	Brood Year and Age Class									
Sampling dates:	05/17 – 07/25	2009		2008		2007			2006		
Sample size:	4,700	0.2	1.1	0.3	1.2	0.4	1.3	2.2	1.4	2.3	Total
Female	Percentage of sample	0.1	0.0	1.5	4.0	0.0	37.1	0.2	0.2	0.7	43.8
	Number in harvest	1,363	0	28,131	74,689	0	693,255	3,787	2,936	12,786	816,947
Male	Percentage of sample	0.1	0.0	1.9	4.6	0.1	44.0	0.1	0.4	0.6	51.7
	Number in harvest	1,457	832	34,624	85,512	1,454	820,561	2,296	6,537	11,566	964,839
Total	Percentage of sample	0.2	0.0	3.4	9.2	0.1	84.9	0.4	0.5	1.3	100.0
	Number in harvest	3,045	832	63,656	171,193	1,454	1,585,553	6,759	9,698	24,353	1,866,541
	Standard error	1,125	660	5,577	8,263	873	10,614	1,488	2,206	3,473	

Appendix A16.–Estimated age and sex composition of Chinook salmon harvested in the Copper River District commercial common property drift gillnet fishery, 2012.

Strata Combined:	05/17 – 10/10	Brood Year and Age Class										
Sampling dates:	05/17 – 06/02	2009		2008		2007		2006		2005		
Sample size:	1,565	0.2	1.1	1.2	2.1	1.3	2.2	1.4	2.3	1.5	2.4	Total
Female	Percentage of sample	0	0	6.6	0.0	35.6	0.3	6.4	0.8	0.0	0.1	50.0
	Number in harvest	11	0	776	0	4,189	40	759	92	0	17	5,884
Male	Percentage of sample	0	0	4.0	0.1	35.2	0.2	9.4	0.5	0.1	0.1	49.6
	Number in harvest	0	3	470	11	4,143	23	1,107	60	12	12	5,839
Total[a]	Percentage of sample	0	0	10.6	0.1	71.1	0.5	16.0	1.3	0.1	0.2	100.0
	Number in harvest	11	3	1,246	11	8,361	64	1,877	152	12	29	11,764
	Standard error	11	3	101	11	147	26	116	37	12	17	

[a] Sex could not be determined for some fish. Thus, the number of female plus male sampled do not always equal the total.

Appendix A17.–Estimated age and sex composition of coho salmon harvested in the Copper River District commercial common property drift gillnet fishery, 2012.

Strata Combined:	05/17 – 10/10	Brood Year and Age Class			
Sampling dates:	08/28 – 09/11	2009	2008	2007	
Sample size:	836	1.1	2.1	3.1	Total
Female	Percentage of sample	20.3	19.7	0.1	40.1
	Number in harvest	26,458	25,644	163	52,265
Male	Percentage of sample	30.1	29.3	0.2	59.6
	Number in harvest	39,222	38,151	298	77,671
Total	Percentage of sample	50.4	49.2	0.4	100.0
	Number in harvest	65,679	64,120	461	130,261
	Standard error	2,257	2,256	266	

Appendix A18.–Total estimated coho salmon run to the Copper River by end user or destination, 2002–2012.

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-year Average	2012
Commercial harvest[a]	504,223	363,489	467,859	263,465	318,285	117,182	202,621	207,776	210,621	127,511	278,303	130,261
Commercial, homepack[a]	187	0	2	119	137	340	423	767	1,026	543	354	1,037
Commercial, donated[a]	0	0	0	0	0	0	154	0	0	0	15	0
Educational drift gillnet permit[a]	0	0	0	0	0	0	0	0	0	0	0	0
Subsistence (Cordova, drift gillnet)[b]	28	36	46	15	1	15	53	22	27	34	28	0
Federal Subsistence (PWS/Chugach Nat'l Forest, dip net, spear, rod and reel)[b]	0	0	0	141	100	68	119	185	68	581	126	392
Subsistence (Batzulnetas, fish wheel, dip net or spear)[b]	N/A	N/A	N/A	0	0	0	0	0	0	0	0	0
Subsistence (Glennallen Subdistrict, dip net or fish wheel)[c]	530	467	577	154	212	238	493	228	293	372	356	335
Federal Subsistence (Glennallen subdistrict, dip net or fish wheel)[d]	NA	152	152	126	28	57	229	55	81	223	123	173
Personal Use (Chitina Subdistrict, dip net)[c]	1,934	2,533	2,860	1,869	2,715	1,742	2,711	1,712	2,013	1,702	2,179	1,385
Federal Subsistence (Chitna subdistrict, dip net)[d]	0	70	18	0	20	41	100	11	30	10	30	8
Delta sport harvest[e]	6,525	14,166	14,512	9,727	5,477	6,749	7,706	14,384	15,752	14,283	10,928	14,806
Upriver sport harvest[e]	384	277	131	72	54	0	57	36	114	21	115	57
Upriver spawning escapement[f]												
Delta spawning escapement[g]	174,830	144,110	199,010	199,364	178,140	102,430	153,784	82,588	82,154	76,290	139,270	74,020
Total estimated coho salmon run size	688,641	525,300	685,167	475,052	505,169	228,862	368,450	307,764	312,179	221,570	431,815	222,474

[a] Numbers are from fish ticket data.

[b] Data are reported harvest from returned state and federal subsistence permits.

[c] Data are expanded harvest from returned state and federal subsistence permits.

[d] Data are reported harvest, 2002–2004, and expanded harvest, 2005–2011, from returned state and federal subsistence permits.

[e] Upper Copper River and Copper River Delta sport harvest data are from statewide sport fish harvest surveys.

[f] Numbers of upriver coho salmon spawners are unavailable.

[g] The Copper River Delta spawning escapement index is calculated by doubling the final peak aerial survey index.

Appendix A19.–Aerial escapement indices by statistical week and location for the coho salmon run to the Copper River Delta, 2012.

		Weekly Escapement Indices (Statistical Week Ending Date Listed)[a]														
Drainage	System[b]	7/28	8/4	8/11	8/18	8/25	9/1	9/8	9/15	9/22	9/29	10/6	10/13	10/20	Site[c]	System[d]	Anticipated (by drainage)
Eyak River	Eyak River		45	100	800		850		350				NC		350	4,200	6,916
	East Shore Beaches		0	0	1,000		800		600				NC		600		
	West Shore Beaches		0	0	400		400		500				NC		500		
	Middle Arm Beaches		0	0	300		1,000		2,500				20		2,500		
	North Shore Beaches		0	0	600		200		0				0		0		
	Hatchery Creek Delta		0	0	0		100		50				0		50		
	Hatchery Creek		0	0	0		20		50				600		50		
	Power Creek Delta		0	0	0		100		100				0		100		
	Power Creek		0	0	0		50		50				725		50		
Ibeck Creek	Ibeck Creek		0	70	260		2,310		7,600				6,100		7,600	7,600	6,227
Scott River	Scott Lake		0	0	0		75		0				0		75	275	
	Scott River		0	0	0		0		0				200		200		
	Elsner Lake[e]		0	0	0		0		300				20		300		
Alaganik Slough	Alaganik Slough		0	20	100		350		500				NC		NC	1,850	4,020
	18/20 Mile Creek		0	5	15		150		350				450		450		
	McKinley Lake		0	0	0		250		80				100		100		
	Salmon Creek West Fork		0	NS	50		100		350				0		0		
	Salmon Creek East Fork		0	NS	150		350		250				1,300		1,300		
26/27 Mile Creek	26/27 Mile Creek		0	0	150		75		475				NS		475	475	829
39 Mile Creek	39 Mile Creek		0	500	1,200		2,400		2,100				NS		2,400	2,400	3,831
Goat Mountain Cr.	Goat Mountain Creek		0	0	0		400		300				NS		400	400	1,181
Pleasant Creek	Pleasant Creek		0	50	0		250		440				30		440	440	

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Drainage	System[b]	Weekly Escapement Indices (Statistical Week Ending Date Listed)[a] 7/28	8/4	8/11	8/18	8/25	9/1	9/8	9/15	9/22	9/29	10/6	10/13	10/20	Site[c]	System[d]	Anticipated (by drainage)
Martin River	Martin River - Lower		0	10	610		120		100				20		20	20	
	Ragged Point River		0	75	2,800		550		450				1,800		2,800	4,000	849
	Ragged Point Lake Outlet		0	NS	1,000		300		200				150		1,000		
	Ragged Point Lake		0	NS	200		1,100		800				400		200		
	Martin River - Upper		0	80	320		4,100		3,000				1,400		1,400	1,400	6,522
	Martin Lake Outlet		0	10	500		50		200				200		200	2,350	1,936
	Martin Lake		0	0	600		300		850				950		950		
	Martin Lake Feeders		0	0	50		200		750				1,200		1,200		
	Pothole River		0	0	100		50		200				1,600		1,600	2,300	1,370
	Pothole Lake		0	0	500		200		150				700		700		
	Little Martin River		0	10	90		410		4,500				3,300		4,500	4,700	5,413
	Little Martin Lake		0	0	200		200		200				200		200		
Tokun	Tokun Springs		0	0	100		380		1,100				250		1,100	3,200	1,376
	Tokun River		0	300	800		800		300				500		800		
	Tokun Lake Outlet		0	100	800		100		100				400		800		
	Tokun Lake		0	0	500		100		500				700		500		
Martin River Slough	Martin River Slough		0	NS	10		900		1,100				1,400		1,400	1,400	9,531
Copper River Aerial Survey Daily Total		0	45	1,330	14,205	0	20,090	0	31,445	0	0	0	24,715	0	37,010	37,010	
Lower SEG		86	1,225	2,025	5,846	9,298	16,147	21,447	18,286	16,908	15,542	17,896	8,474	9,841			32,000
Average SEG, (average anticipated escapement)		135	1,914	3,164	9,134	14,528	25,229	33,510	28,571	26,418	24,284	27,962	13,241	15,377			50,000
Upper SEG		181	2,565	4,240	12,239	19,468	33,807	44,904	38,285	35,401	32,540	37,470	17,743	20,605			67,000

[a] The surveys provide information about the relative strength of escapement among years and within a year, time to spawning sites and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement but have served that purpose in the absence of any other escapement estimating method.

[b] The system represents the majority of known coho salmon spawning locations in the Copper River Delta.

[c] Where the survey site is a terminal spawning area the peak count is used. However, if the site is a schooling area for migratory fish bound for further sites upstream, the count which minimizes possible duplication of counts across dates is selected.

[d] The sum of the index counts by site within the index systems.

[e] This stream is not included in the estimated delta wide escapement; it is a non-index stream.

Appendix A20.–Copper River Delta and Bering River coho salmon escapement indices, 2002–2012.

Stream/Lake [a,b]	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	10-yr Average	2012
Eyak Lake	17,425	10,050	12,700	2,812	1,940	5,810	17,030	950	13,360	640	8,272	3,950
Hatchery Creek	1,400	0	1,450	0	160	710	370	2,320	640	2,000	905	100
Power Creek	2,000	1,500	500	40	360	800	1,140	990	350	2,520	1,020	150
Ibeck Creek	23,900	26,000	32,000	34,900	36,300	13,200	10,265	9,963	3,381	14,200	20,411	7,600
Scott & Elsner River [c]	2,400	125	475	1,400	200	1,520	3,281	1,170	700	380	1,165	575
18/20 Mile	1,450	205	1,560	610	740	550	161	150	144	310	588	450
McKinley Lake	2,200	0	275	140	1,400	280	300	450	630	75	575	100
Salmon Creek	1,100	725	6,100	2,250	200	150	700	1,540	730	1,620	1,512	1,300
26/27 Mile	240	275	850	820	60	480	10	100	0	1,150	399	475
39 Mile	4,500	1,250	3,120	9,900	4,400	3,300	5,460	1,570	1,340	2,800	3,764	2,400
Goat Mountain	160	125	450	4,500	3,100	1,400	920	1,220	331	210	1,242	400
Pleasant Creek	0	2,000	3,950	3,790	7,030	500	2,800	680	1,700	245	2,270	440
Martin River	13,325	10,200	11,600	1,050	9,100	8,830	9,323	1,651	5,560	2,100	7,274	1,420
Ragged Point River/Lake	3,400	375	575	650	360	260	302	590	690	1,100	830	4,000
Martin Lake	1,850	6,300	4,475	24,100	2,900	4,775	2,770	1,360	3,511	450	5,249	2,350
Pothole Lake	3,400	4,000	500	140	120	870	3,661	2,750	2,000	1,400	1,884	2,300
Little Martin Lake	500	1,000	7,900	2,100	7,500	2,700	8,760	2,810	460	4,500	3,823	4,700
Tokun River/Lake	540	550	1,750	2,030	700	830	3,020	850	1,370	1,350	1,299	3,200
Martin River Slough	10,025	7,500	9,750	9,850	12,700	5,770	7,780	10,180	4,180	1,475	7,921	1,400
Copper River Delta Total	89,815	72,180	99,980	101,082	89,270	52,735	78,053	41,294	41,077	38,495	70,398	37,010
Katalla River	2,900	5,000	10,000	6,500	12,100	8,900	5,510	3,340	1,590	1,430	5,727	950
Bering River/Lake	21,040	15,375	13,750	10,125	15,040	13,052	4,910	8,491	6,320	5,520	11,362	5,700
Dick Creek	760	1,700	2,050	2,750	362	1,660	530	1,410	1,210	2,050	1,448	2,000
Shepherd Creek	300	675	700	1,125	100	60	130	370	10	20	349	150
Nichawak River	1,300	1,420	900	1,475	6,900	3,200	11,900	10,120	4,690	6,800	4,871	3,750
Gandil River	900	330	900	2,000	4,450	640	2,650	840	1,610	820	1,514	500
Controller Bay	2,807	9,700	4,175	6,210	5,590	5,680	7,332	4,251	6,330	2,250	5,433	2,555
Bering River Area Total	30,007	34,200	32,475	30,185	44,542	33,192	32,962	28,822	21,760	18,890	30,704	15,605
Copper/Bering Total	119,822	106,380	132,455	131,267	133,812	85,927	111,015	70,116	62,837	57,385	101,102	52,615

[a] This table is based on peak aerial survey index counts from the majority of known coho salmon spawning areas in the Copper and Bering river deltas. These indices are not intended to provide a true estimate of total escapement but a comparable index, based upon the best data available, across years.

[b] The stream/lake in this table represents combined survey sites corresponding to the "system" designations.

[c] Not an index stream.

Appendix A21.–Total commercial salmon harvest by species in the Bering River District, 1974–2012.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1974	32	4,208	28,615	7	2	32,864
1975	162	21,637	24,162	0	0	45,961
1976	228	30,908	42,423	43	1	73,603
1977	127	14,445	47,218	192	221	62,203
1978	331	33,554	91,097	266	2,391	127,639
1979	385	139,015	114,046	6,895	23,094	283,435
1980 [a]	0	0	108,872	0	0	108,872
1981	200	55,585	82,626	9,882	8,307	156,600
1982	254	129,667	144,752	47	333	275,053
1983	610	179,273	117,669	851	4,615	303,018
1984 [b]	330	91,784	214,632	309	20,408	327,463
1985 [b]	215	26,561	419,276	214	9,642	455,908
1986 [c]	128	19,038	115,809	15	243	135,233
1987 [c]	34	16,926	15,864	54	7	32,885
1988 [c]	19	7,152	86,539	23	181	93,914
1989 [c]	30	9,225	26,952	7	2	36,216
1990 [c]	14	8,332	42,952	2	1	51,301
1991 [c]	28	19,181	110,951	4	195	130,359
1992 [c]	21	19,721	125,616	4	1	145,363
1993 [c]	130	33,951	115,833	82	22	150,018
1994 [c]	121	27,926	259,003	34	63	287,147
1995 [c]	44	21,585	282,045	26	229	303,929
1996 [c]	111	37,712	93,763	0	30	131,616
1997 [c]	23	9,651	97	2	0	9,773
1998 [c]	70	8,439	12,284	5	2	20,800
1999 [c]	42	13,697	9,852	204	96	23,891
2000 [c]	5	1,279	56,329	0	0	57,613
2001 [c]	76	5,450	2,715	0	0	8,241
2002 [c]	14	235	108,522	0	0	108,771
2003 [c]	151	18,266	59,481	33	0	77,931
2004 [c]	87	13,165	95,595	2	21	108,870
2005 [c]	277	77,464	43,030	9,327	14	130,112
2006 [c]	238	36,867	56,713	54	39	93,911
2007 [c]	88	16,470	9,305	6	1	25,870
2008 [c]	42	1,175	40,380	8	1	65,601
2009 [c]	15	4,157	45,522	1	5	49,700
2010 [c]	0	51	80,560	2	0	80,613
2011 [c]	1	6	19,956	8	0	19,971
10-Year Average	91	16,786	55,906	944	8	73,736
2012 [c]	1	0	46,169	1	0	46,171

[a] In 1980 fishing was prohibited before August 11.

[b] A new Kayak Island Subdistrict management plan that allowed earlier opening date (June 10) and set a closure of the subdistrict on July 10 or when a total of 93,000 sockeye salmon were harvested.

[c] The Alaska Board of Fisheries closed the Kayak Island Subdistrict due to interceptions of non-local stocks.

Appendix A22.–Aerial escapement indices by statistical week and location for sockeye salmon returning to the Bering River District, 2012.

		Weekly Escapement Indices (Statistical Week Ending Date Listed)[a]												
Drainage	System[b]	6/16	6/23	6/30	7/14	7/21	8/4	8/18	9/1	9/15	10/13	Site[c]	System[d]	Anticipated (by drainage)
Bering River	Bering River	0	6,000	0	0	1,400	275	0	0	0	0	6,000	15,950	21,903
	Bering Lake	0	7,950	500	4,100	2,950	305	3,200	2,450	2,000	0	7,950		
	Dick Creek	0	2,000	0	2,100	4,100	1,360	4,700	2,900	850	0	2,000		
	Shepherd Creek Lagoon	NS	0	NS	0	100	0	0	0	0	NS	0	1,400	4,375
	Shepherd Creek	NS	0	0	50	900	2	1,200	0	0	NS	1,200		
	Carbon Creek	NS	NS	NS	NS	50	30	200	30	0	NS	200		
	Clear Creek	NS	NS	NS	NS	0	3	170	NS	NS	NS	170	170	1,197
	Kushtaka Lake	NS	NS	NS	NS	5	15	270	NS	NS	NS	270		
	Shockum Creek	NS	NS	NS	NS	0	100	50	NS	NS	NS	100	370	1,226
Katalla River	Katalla River [e]	0	0	0	0	400	165	300	50	0	0	400	400	
Bering River District Weekly Index		0	15,950	500	6,250	9,905	2,255	10,090	5,430	2,850	0	17,890	17,890	
Lower SEG		3,251	4,048	6,092	11,051	11,004	8,409	2,416	1,044	737	0			15,000
Average SEG, (average anticipated esc.)		5,202	6,477	9,747	17,682	17,606	13,454	3,866	1,670	1,179	0			24,000
Upper SEG		7,153	8,906	13,402	24,313	24,208	18,499	5,316	2,297	1,621	0			33,000

[a] The surveys provide information about the relative strength of escapement among years and within a year, time for spawning sites and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement but have served that purpose in the absence of any other escapement estimating method. "NS" signifies that no survey was flown.

[b] The survey systems represent the majority of known sockeye salmon spawning locations in the Bering River drainage.

[c] When the survey site is a terminal spawning area the peak count is used. However, if the site is a schooling area for migratory fish bound for sites further upstream, the index count which minimizes duplicate counts across dates is selected.

[d] The sum of the index counts by site within a system.

[e] This stream is not included in the indexed escapement for the Bering River drainage, it is a non-index stream.

Appendix A23.–Bering River District commercial drift gillnet salmon harvest by period, 2012.

Period	Date	Emergency order Issued	Hours	Permits	Landings	Chinook		Sockeye		Coho		Pink		Chum	
						Number	lbs	Number	lbs	Number	lbs	Number	lbs	Number	lbs
01	6/25–6/26	2-F-E-032-12	36	0	0	0	0	0	0	0	0	0	0	0	0
02	6/28–6/29	2-F-E-036-12	36	0	0	0	0	0	0	0	0	0	0	0	0
03	7/2–7/4	2-F-E-038-12	48	0	0	0	0	0	0	0	0	0	0	0	0
04	7/5–7/7	2-F-E-041-12	48	0	0	0	0	0	0	0	0	0	0	0	0
05	7/9–7/11	2-F-E-048-12	48	0	0	0	0	0	0	0	0	0	0	0	0
06	7/12–7/14	2-F-E-050-12	48	0	0	0	0	0	0	0	0	0	0	0	0
07	7/15–7/18	2-F-E-053-12	48	0	0	0	0	0	0	0	0	0	0	0	0
08	7/19–7/20	2-F-E-055-12	36	0	0	0	0	0	0	0	0	0	0	0	0
09	7/23–7/24	2-F-E-061-12	36	0	0	0	0	0	0	0	0	0	0	0	0
10	7/26–7/27	2-F-E-064-12	36	0	0	0	0	0	0	0	0	0	0	0	0
11	7/30–7/31	2-F-E-066-12	36	0	0	0	0	0	0	0	0	0	0	0	0
12	8/2–8/3	2-F-E-068-12	36	0	0	0	0	0	0	0	0	0	0	0	0
13	8/6–8/7	2-F-E-070-12	36	0	0	0	0	0	0	0	0	0	0	0	0
14	8/9–8/10	2-F-E-072-12	36	0	0	0	0	0	0	0	0	0	0	0	0
15	8/13–8/14	2-F-E-074-12	36	2	2	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
16	8/16–8/17	2-F-E-077-12	24	1	1	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
17	8/20–8/21	2-F-E-102-12	24	2	2	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
18	8/27–8/28	2-F-E-104-12	24	18	37	0	0	0	0	5,609	43,546	1	4	0	0
19	9/3–9/4	2-F-E-106-12	24	20	39	1	9	0	0	7,145	57,352	0	0	0	0
20	9/6–9/7	2-F-E-108-12	24	20	41	0	0	0	0	9,306	81,177	0	0	0	0
21	9/10–9/11	2-F-E-110-12	24	42	72	0	0	0	0	11,247	90,957	0	0	0	0
22	9/13–9/14	2-F-E-112-12	24	36	66	0	0	0	0	11,918	100,207	0	0	0	0
23	9/17–9/18	2-F-E-114-12, 2-F-E-132-12	36	1	1	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
24	9/20–9/22	2-F-E-133-12	48	0	0	0	0	0	0	0	0	0	0	0	0
25	9/24–9/26	2-F-E-135-12	48	0	0	0	0	0	0	0	0	0	0	0	0
26	9/27–9/29	2-F-E-136-12	48	0	0	0	0	0	0	0	0	0	0	0	0
27	10/1–10/3	2-F-E-136-12	48	0	0	0	0	0	0	0	0	0	0	0	0
28	10/04–10/06	2-F-E-137-12	48	0	0	0	0	0	0	0	0	0	0	0	0
29	10/08–10/10	2-F-E-137-12	48	0	0	0	0	0	0	0	0	0	0	0	0
Total			1,092	48	261	1	9	0	0	46,169	381,541	1	4	0	0
Average Weight							9.00		0.00		8.26		4.00		0.00

[a] Confidential data, less than 3 permit holders delivering.

Appendix A24.–Bering River District commercial drift gillnet salmon harvest by statistical week, 2012.

Week	Dates [a]	Permits			Chinook		Sockeye		Coho		Pink		Chum	
		Hours	Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
26	06/24	72	0	0	0	0	0	0	0	0	0	0	0	0
27	07/01	96	0	0	0	0	0	0	0	0	0	0	0	0
28	07/08	96	0	0	0	0	0	0	0	0	0	0	0	0
29	07/15	84	0	0	0	0	0	0	0	0	0	0	0	0
30	07/22	72	0	0	0	0	0	0	0	0	0	0	0	0
31	07/29	72	0	0	0	0	0	0	0	0	0	0	0	0
32	08/05	72	0	0	0	0	0	0	0	0	0	0	0	0
33	08/12	60	3	3	0	0	0	0	654	5,898	0	0	0	0
34	08/19	24	2	2	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
35	08/26	24	18	37	0	0	0	0	5,609	43,546	1	4	0	0
36	09/02	48	40	80	1	9	0	0	16,451	138,529	0	0	0	0
37	09/09	48	78	138	0	0	0	0	23,165	191,164	0	0	0	0
38	09/16	84	1	1	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
39	09/23	96	0	0	0	0	0	0	0	0	0	0	0	0
40	09/30	96	0	0	0	0	0	0	0	0	0	0	0	0
41	10/07	48	0	0	0	0	0	0	0	0	0	0	0	0
Total		1,092	48	261	1	9	0	0	46,169	381,541	1	4	0	0
Average Weights						9.00		0.00		8.26		4.00		0.00

[a] Statistical week beginning date.

[b] Confidential data, less than 3 permit holders delivering.

Appendix A25.–Aerial escapement indices by statistical week and location for coho salmon returning to the Bering River District, 2012.

		Weekly Escapement Indices (Statistical Week Ending Date Listed)[a]															
Drainage	System[b]	7/28	8/4	8/11	8/18	8/25	9/1	9/8	9/15	9/22	9/29	10/6	10/13	10/20	Site[c]	System[d]	Anticipated, (by drainage)
Bering River	Bering River[e]		0		180		890		1,000				520		1,000	7,700	7,720
	Bering Lake		0		1,250		1,270		4,700				500		4,700		
	Dick Creek		0		700		1,800		2,000				2,950		2,000		
	Shepherd Creek - Lagoon		0		0		0		0				NS		0	150	
	Shepherd Creek		0		0		150		0				NS		150		
	Carbon Creek [f]		0		0		0		0				NS		0		
Katalla River	Katalla River		50		150		850		950				20		950	950	4,993
Lower Bering River	Gandil River		NS		0		10		500				360		500	4,250	2,910
	Nichawak River		NS		0		475		3,750				2,700		3,750		
Controller Bay	Campbell River		NS		NS		0		5				0		5	2,555	7,378
	Edwardes River		NS		NS		120		1,900				2,400		2,400		
	Okalee River		NS		NS		100		150				50		150		
	Other Clear Streams [f]		NS		NS		0		0				200		200		
Bering River District Weekly Index			50		2,280		5,665		14,955				9,700		15,605	15,605	
Lower SEG		4	434	487	2,533	4,002	8,732	8,803	6,969	5,041	4,199	5,156	1,042	1,692			13,000
Average SEG, (average anticipated escapement)		7	768	861	4,482	7,080	15,448	15,574	12,330	8,919	7,429	9,122	1,844	2,993			23,001
Upper SEG		11	1,102	1,236	6,431	10,158	22,165	22,345	17,691	12,797	10,659	13,089	2,645	4,294			33,000

[a] The surveys provide information about the relative strength of escapement among years and within a year, time for spawning sites and relative escapement strength among sites. The indices are not intended to provide an actual estimate of escapement but have served that purpose in the absence of any other escapement estimating method. "NS" signifies that no survey was flown.

[b] The survey system represent the majority of known coho salmon spawning locations in the Bering River drainage.

[c] When the survey site is a terminal spawning area the peak count is used. However, if the site is a schooling area for migratory fish bound for sites further upstream, the index count which minimizes duplicate counts across dates is selected.

[d] The sum of the index counts by site within a system

[e] Counts include coho salmon observed in the Don Miller Hill tributaries.

[f] This stream is not included in the indexed escapement delta wide, it is a non-index stream.

APPENDIX B

Appendix B1.–Anticipated daily and cumulative salmon escapement versus actual escapement through the Coghill River weir, 2012.

	Sockeye salmon						Pink salmon		
	Actual		Projected Lower [a]		Projected Upper [a]		Actual		
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Comments
06/05	NA		0	0	0	0	NA		
06/06	NA		0	0	0	0	NA		
06/07	NA		0	0	0	0	NA		
06/08	NA		1	1	2	2	NA		
06/09	NA		0	1	0	2	NA		
06/10	NA		2	3	7	9	NA		
06/11	NA		7	10	22	31	NA		
06/12	NA		14	25	43	74	NA		About 145 feet of the weir is in on the shallow end. Ice chunks coming down from lagoon are precluding weir installation. No salmon have been seen yet.
06/13	NA		30	55	90	164	NA		Similar conditions to previous day. No fish observed.
06/14	NA		34	89	103	266	NA		Counting 20 mins on, 20 mins off every other hour from tree ("tower").
06/15	NA		20	109	59	326	NA		
06/16	NA		64	173	193	519	NA		
06/17	NA		87	260	260	780	NA		
06/18	NA		102	362	307	1,087	NA		Still lots of ice in lagoon and lake
06/19	NA		119	481	356	1,443	NA		Ice in lagoon softening
06/20	NA		147	628	440	1,883	NA		
06/21	2	2[b]	227	855	682	2,566	0	0	2 fish counted past tower around 5 pm
06/22	0	0	227	1,083	682	3,248	0	0	Ice clearing from lagoon. Started installing weir. No fish seen.
06/23	0	0	188	1,271	565	3,813	0	0	Continuing to install weir.
06/24	5	7[b]	243	1,514	729	4,543	0	0	Weir in 8:36 pm. 5 fish viewed passing weir during the day.
06/25	19	26	392	1,906	1,175	5,718	0	0	
06/26	25	51[b]	373	2,278	1,118	6,835	0	0	Pickets in deep section pulled due to high water. Crew estimated 25 fish passed, though visibility is poor.
06/27	18	69[b]	418	2,697	1,255	8,091	0	0	Water levels slowly dropping. An estimated 18 fish passed the weir. Turbid water continues to create poor visibility.
06/28	90	159[b]	525	3,222	1,576	9,666	0	0	Water levels continue to drop, weir reinstalled and fish tight as of 7:30 pm. Crew estimates 90 fish passed.
06/29	167	326	493	3,715	1,480	11,146	0	0	20 below weir this morning.
06/30	235	561	812	4,527	2,435	13,582	0	0	150 below weir at 9 am.; 1 jack
07/01	1,296	1,857	864	5,391	2,591	16,173	0	0	Lake still ~40% ice covered, but thin and melting fast.
07/02	2,427	4,284	618	6,009	1,854	18,027	3	3	5 jack sockeye salmon
07/03	11,382	15,666	659	6,668	1,976	20,003	4	7	4 jack sockeye salmon; 5 chum salmon
07/04	11,897	27,563	1,460	8,128	4,380	24,383	0	7	51 jacks. 23 chum counted, mostly while sampling. Possibly up to 2-3% of total count was chum.

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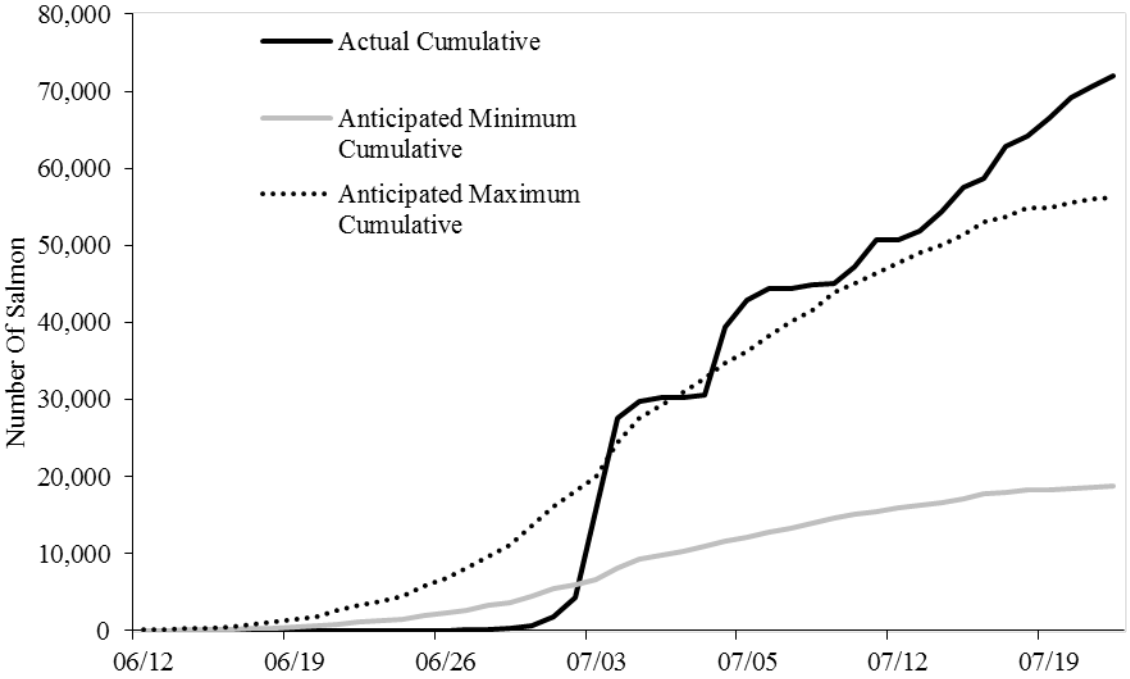
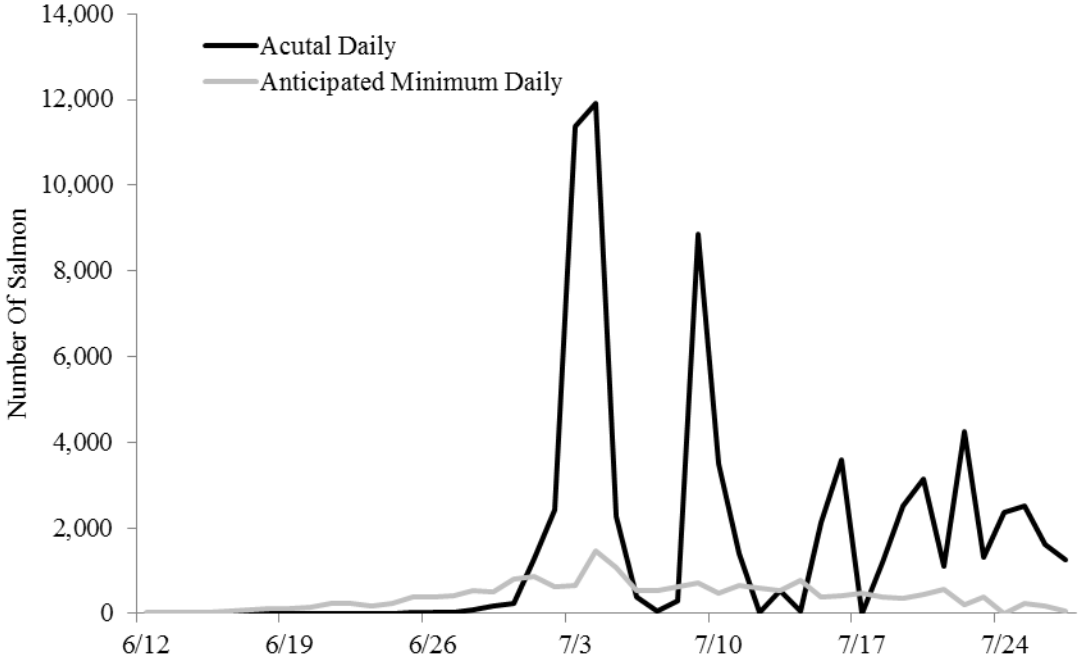
	Sockeye salmon						Pink salmon		
	Actual		Projected Lower [a]		Projected Upper [a]		Actual		
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Comments
07/05	2,269	29,832	1,079	9,206	3,236	27,619	0	7	6 jacks.
07/06	383	30,215	532	9,738	1,596	29,215	0	7	
07/07	72	30,287	547	10,285	1,641	30,856	0	7	4 jacks. M:F ratio 13:15
07/08	294	30,581	619	10,904	1,857	32,713	0	7	3 jacks, 1 coho, 9 chum. M:F ratio 2:3
07/09	8,872	39,453	704	11,608	2,111	34,825	0	7	42 jacks, 6 chum. M:F ratio 47:52
07/10	3,505	42,958	468	12,076	1,403	36,228	0	7	11 jacks
07/11	1,404	44,362	651	12,727	1,954	38,182	0	7	19 jacks, M:F ratio 2:3; ASL sampling
07/12	37	44,399	609	13,337	1,828	40,010	0	7	1 jack, 1 pink. Sockeye M:F ratio 26:51; ASL sampling
07/13	544	44,943	531	13,867	1,592	41,602	2	9	7 jacks. Sockeye M:F ratio 69:118; ASL sampling
07/14	67	45,010	774	14,641	2,322	43,924	0	9	3 jacks; M:F ratio 32:35; ASL sampling
07/15	2,135	47,145	394	15,035	1,183	45,106	25	34	20 jacks; M:F ratio 37:48
07/16	3,582	50,727	430	15,466	1,291	46,398	12	46	14 jacks
07/17	0	50,727	466	15,932	1,398	47,796	0	46	All sockeye were sampled for otoliths; no live salmon passage.
07/18	1,183	51,910	398	16,330	1,195	48,991	0	46	5 jacks, no other species. M:F ratio 6:7
07/19	2,512	54,422	348	16,678	1,044	50,035	1	47	9 jacks
07/20	3,128	57,550	457	17,135	1,372	51,406	13	60	21 jacks
07/21	1,117	58,667	567	17,703	1,702	53,108	7	67	5 jacks
07/22	4,240	62,907	197	17,900	592	53,700	3,018	3,085	Sat phone disconnected, did not get below weir count. 43 jacks.
07/23	1,321	64,228	386	18,286	1,159	54,859	911	3,996	17 jacks.
07/24	2,370	66,598	0	18,286	0	54,859	256	4,252	16 jacks.
07/25	2,503	69,101	231	18,518	693	55,553	631	4,883	
07/26	1,617	70,718	170	18,688	510	56,063	5,206	10,089	27 jacks; 3 chum salmon
07/27	1,260	71,978	63	18,751	190	56,254	2,231	12,320	31 jacks, 3 chum salmon
07/28	NA	NA	17	18,769	52	56,306	NA	NA	End of season

[a] The projected lower and upper daily escapements are calculated using the lower bound (20,000) and upper bound (60,000) of the sustainable escapement goal apportioned to day with the historical run timing proportions.

[b] Daily counts were estimated due to poor visibility.

Appendix B2.–Anticipated cumulative and daily sockeye salmon escapement versus actual escapement through the Coghill River weir, 2012.





Appendix B3.–Salmon escapement by species in the Coghill District, 1971–2012.

Year	Sockeye[a]	Pink[b]	Chum[b]
1971	15,000	62,160	6,600
1972	51,000	30,960	28,160
1973	55,000	493,780	72,610
1974	22,333	56,940	29,280
1975	34,855	452,430	3,640
1976	9,056	53,908	31,398
1977	31,562	320,680	79,957
1978	42,284	67,084	15,966
1979	48,281	125,544	7,823
1980	142,253	148,066	20,919
1981	156,112	140,436	2,389
1982	180,314	309,202	21,586
1983	38,783	284,164	55,127
1984	63,622	365,226	13,500
1985	163,311	238,728	14,514
1986	71,095	109,798	16,300
1987	187,263	67,761	22,472
1988	72,052	42,985	42,536
1989	37,751	48,802	22,434
1990	8,949	45,558	20,494
1991	9,752	84,790	7,055
1992	29,642	23,122	7,583
1993	9,232	41,666	7,404
1994	7,264	65,648	14,176
1995	30,382	46,029	11,596
1996	38,693	104,781	19,669
1997	35,517	52,961	3,101
1998	28,923	85,968	22,764
1999	59,311	168,816	5,057
2000	28,446	223,646	20,488
2001	38,558	148,665	13,388
2002	28,323	54,882	7,430
2003	75,427	375,147	19,729
2004	30,569	36,717	5,000
2005	30,313	528,264	11,979
2006	23,479	145,511	15,900
2007	70,001	197,405	14,052
2008	29,298	145,177	39,660
2009	23,186	125,907	5,208
2010	24,312	355,108	51,589
2011	102,359	257,020	16,368
10-Year Average	43,727	222,114	18,691
2012	101,523	172,611	10,281

[a] Escapement count of sockeye salmon past the Coghill River weir.

[b] Pink and chum salmon escapements indexed for streams by aerial survey. Historical data revised in 1990.

Appendix B4.–Coghill District commercial common property drift gillnet salmon harvest by period, 2012.

Period	Dates	Emergency Order Issued	Permits Hours	Fished	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
1[a]	5/31–6/3	2-F-E-007-12	72	51	164	12	108	809	6,097	0	0	2	8	38,949	296,821
2[a]	6/4–6/5	2-F-E-009-12	36	81	226	5	103	1,539	11,592	0	0	0	0	52,193	374,055
3[b]	6/7–6/10	2-F-E-013-12	72	134	514	32	329	7,349	53,746	0	0	0	0	109,887	752,720
4[c]	6/11–6/13	2-F-E-016-12	48	201	551	28	351	10,379	72,885	0	0	0	0	78,724	506,966
5[c]	6/14–6/17	2-F-E-022-12	72	184	784	13	121	14,399	105,398	0	0	1	3	152,366	1,049,984
6[c]	6/18–6/20	2-F-E-026-12	48	193	549	7	121	20,162	148,200	0	0	6	18	83,761	570,286
7[d]	6/21–6/24	2-F-E-031-12	72	174	641	8	140	45,644	348,560	0	0	63	178	89,830	628,827
8[e]	6/25–6/27	2-F-E-033-12	48	194	709	14	69	28,504	202,404	0	0	235	729	221,202	1,586,948
9[f]	6/28–6/30	2-F-E-035-12	60	157	658	2	33	60,776	466,075	0	0	272	864	118,464	848,458
10[g]	7/2–7/4	2-F-E-037-12	48	153	570	2	35	47,146	369,979	1	10	2,417	7,519	159,074	1,111,024
11[h]	7/5–7/8	2-F-E-040-12	72	133	519	8	74	40,529	294,368	3	22	3,382	9,969	176,881	1,214,948
12[i]	7/9–7/11	2-F-E-047-12	48	160	613	3	57	37,383	291,291	3	20	7,250	26,270	192,561	1,364,198
13[j]	7/11–7/12	2-F-E-051-12	24	58	94	0	0	7,662	57,533	0	0	2,373	8,343	13,364	98,719
14[k]	7/12–7/15	2-F-E-052-12	84	185	806	1	8	21,998	160,624	1	6	22,693	77,556	329,499	2,312,264
15[l]	7/16–7/18	2-F-E-054-12	48	187	632	1	10	20,293	147,140	34	267	32,843	109,300	214,256	1,525,575
16[m]	7/18–7/19	2-F-E-059-12	24	127	215	0	0	4,664	34,468	0	0	4,659	18,826	66,466	474,223
17[n]	7/19– 7/20	2-F-E-056-12	24	157	325	1	16	6,146	41,874	6	56	22,650	75,504	98,257	683,394
18[o]	7/20–7/21	2-F-E-057-12	24	81	110	0	0	1,972	14,334	0	0	12,655	38,225	29,843	210,363
19[p]	7/21–7/22	2-F-E-058-12	36	38	58	4	30	1,936	11,809	7	42	12,522	41,105	5,453	40,816
20[q]	7/23–7/26	2-F-E-060-12 2-F-E-062-12	72	85	224	1	11	2,185	14,872	48	323	68,012	217,281	18,739	128,870
21[r]	7/26–7/27	2-F-E-065-12	36	4	7	0	0	381	2,669	0	0	2,119	8,483	4	28
22[s]	7/28–7/30	2-F-E-092-12	60	12	20	0	0	157	1,050	2	12	7,755	29,643	753	5,134
23[t]	8/1	2-F-E-093-12	14	8	9	0	0	97	689	0	0	2,666	10,539	94	666
24[u]	8/4	2-F-E-115-12	14	143	240	0	0	281	1,850	111	777	128,625	466,376	1,665	11,512
25[u]	8/5	2-F-E-115-12 2-F-E-116-12	14	85	115	2	27	124	780	42	290	51,127	174,702	877	5,491
26[v]	8/6	2-F-E-116-12	14	142	183	0	0	67	473	73	542	60,044	212,249	668	4,391
27[w]	8/8	2-F-E-117-12	14	137	262	1	12	199	1,382	146	1,084	149,437	544,210	454	3,144
28[w]	8/10	2-F-E-118-12	14	147	269	0	0	111	740	237	1,692	137,379	499,213	1,787	8,230
29[w]	8/12	2-F-E-119-12	14	92	212	2	51	126	918	246	1,798	114,802	393,324	274	1,817
30[x]	8/14	2-F-E-120-12	14	114	220	0	0	83	571	176	1,374	85,624	295,818	249	1,677
31[x]	8/16	2-F-E-121-12	14	154	211	0	0	77	501	516	2,812	69,608	246,057	148	995

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Period	Dates	Emergency Order Issued	Permits Hours	Fished	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
32[x]	8/18	2-F-E-122-12	14	94	119	0	0	45	287	231	1,535	43,553	158,491	143	953
33[x]	8/20	2-F-E-122-12	14	52	70	0	0	31	214	227	1,530	32,503	112,173	50	334
34[y]	8/22	2-F-E-123-12	12	6	6	0	0	7	37	23	160	545	1,717	9	51
35[y]	8/24	2-F-E-124-12	12	2	2	0	0	10	60	26	173	603	2,110	19	133
36[z]	8/26	2-F-E-125-12	12	12	14	0	0	2	14	246	1,742	10,577	32,290	17	117
37[z]	8/27	2-F-E-125-12	12	14	14	0	0	4	28	270	1,694	9,234	27,704	2	14
38[z]	8/28	2-F-E-125-12	12	8	9	0	0	2	14	403	2,843	4,422	13,257	0	0
39[z]	8/29	2-F-E-125-12	12	9	11	0	0	2	14	274	1,945	3,031	9,103	0	0
40[z]	8/30	2-F-E-126-12	12	13	13	0	0	4	28	612	3,776	3,806	11,430	1	6
41[z]	8/31	2-F-E-126-12	12	11	11	0	0	0	0	196	1,409	1,940	5,977	0	0
42[z]	9/1	2-F-E-127-12	12	12	13	0	0	1	7	646	4,176	2,662	8,000	0	0
43[z]	9/2	2-F-E-127-12	12	5	6	0	0	0	0	283	1,982	1,504	5,123	0	0
44[z]	9/3	2-F-E-127-12	12	9	9	0	0	1	7	485	3,401	387	1,353	0	0
45[aa]	9/4	2-F-E-128-12	12	15	16	0	0	0	0	583	4,096	6,750	23,626	0	0
46[aa]	9/5	2-F-E-128-12	12	11	11	0	0	0	0	145	895	880	2,974	0	0
47[ab]	9/6–9/8	2-F-E-107-12	60	13	19	0	0	2	17	1,422	9,957	2,270	7,938	0	0
48[ab]	9/9–9/12	2-F-E-109-12	84	0	0	0	0	0	0	0	0	0	0	0	0
49[ab]	9/13–9/16	2-F-E-111-12	84	0	0	0	0	0	0	0	0	0	0	0	0
50[ab]	9/17–9/19	2-F-E-113-12	60	0	0	0	0	0	0	0	0	0	0	0	0
51[ab]	9/20–9/23	2-F-E-134-12	84	0	0	0	0	0	0	0	0	0	0	0	0
Total			1,810	359	11,053	147	1,706	0 383,289	2,865,599	0 7,724	52,441	0 1,125,888	3,935,578	0 2,256,983	15,824,153
Average Weights							11.61		7.48		6.79		3.50		7.01

[a] Waters excluding the Wally Noerenburg Hatchery (WNH) SHA and THA were open.

[b] Waters excluding the WNH SHA and THA, and excluding the Granite Bay and Esther Subdistricts, were open. The Granite Bay Subdistrict was open for 36 hours at the beginning of the period.

[c] Waters excluding the WNH SHA and THA, and excluding the Granite Bay and Esther Subdistricts, were open. The Granite Bay Subdistrict was open for 24 hours at the beginning of the period.

[d] Waters excluding the WNH SHA and THA, and excluding the Granite Bay and Esther Subdistricts, were open. The Granite Bay Subdistrict and the portion of the Esther Subdistrict west of a line from Esther Light to Point Perry were open for 24 hours at the beginning of the period.

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[e] Waters excluding the WNH SHA and THA, and excluding the Granite Bay and Esther Subdistricts, were open. Additionally, the Granite Bay Subdistrict was open for 24 hours and the Esther Subdistrict was open for 12 hours at the beginning of the period. Waters at the mouth of the Coghill River, north of a line from 61° 3.36'N., 147°55.53'W. to 61° 4.06'N., 147°56.96'W, were closed.

[f] Waters excluding the WNH SHA and THA, and excluding the Granite Bay, Esther, and Bettles Bay Subdistricts were open. Additionally, the Granite Bay and Esther Subdistricts were open for 24 hours at the beginning of the period. Waters at the mouth of the Coghill River, north of a line from 61° 3.36'N., 147°55.53'W. to 61° 4.06'N., 147°56.96'W, were closed.

[g] Waters excluding the WNH SHA and THA, and excluding the Granite Bay and Esther Subdistricts were open. Additionally, the Granite Bay, Esther, and Bettles Bay Subdistricts were open for 24 hours at the beginning of the period. Waters at the mouth of the Coghill River, north of a line from 61° 3.36'N., 147°55.53'W. to 61° 4.06'N., 147°56.96'W, were closed.

[h] Waters excluding the WNH SHA and THA, and excluding the Granite Bay, Esther, and Bettles Bay Subdistricts were open. The Coghill District north of a latitude line at Point Pakenham was open to commercial purse seine and drift gillnet harvest. Additionally, the Granite Bay and Esther Subdistricts were open for 24 hours at the beginning of the period. Waters at the mouth of the Coghill River, north of a line from 61° 3.36'N., 147°55.53'W. to 61° 4.06'N., 147°56.96'W, were closed.

[i] Waters excluding the WNH SHA and THA, and excluding the Granite Bay, Esther, and Bettles Bay Subdistricts and waters south of a latitude line at 60° 46.10' N were open. The Granite Bay Subdistrict, Esther Subdistrict north of a latitude line at 60° 46.10' N., and the WNH THA were open for 36 hours at the beginning of the period.

[j] Waters within Port Wells and College Fiord north of a latitude line at 60° 55.81' N. (north end of Esther Passage), excluding waters of Bettles Bay Subdistrict, were open to commercial drift gillnet harvest.

[k] Waters excluding the Bettles Bay Subdistrict, waters south of a line at 60° 46.10' N, and the WNH SHA, were open. Commercial purse seine harvest was permitted north of a latitude line at Point Pakenham (61°00.45'N).

[l] Waters excluding the Bettles Bay Subdistrict, waters south of a line at 60° 46.10' N, and the WNH SHA, were open.

[m] Waters excluding the Bettles Bay Subdistrict and waters south of a line at 60° 46.10' N were open. The WNH THA was open to drift gillnet harvest.

[n] Waters excluding the Bettles Bay Subdistrict and waters south of a line at 60° 46.10' N were open. The WNH THA and SHA south of a latitude line at 60° 47.69' N was open to drift gillnet harvest.

[o] Waters excluding the Bettles Bay Subdistrict and waters south of a line at 60° 46.10' N were open. The WNH THA and SHA south of a latitude line at 60° 47.78' N was open to drift gillnet harvest.

[p] Waters excluding the Bettles Bay Subdistrict and waters south of a line at 60° 46.10' N were open. The WNH THA and SHA were open to drift gillnet and purse seine harvest.

[q] Waters of the Esther Subdistrict north of a latitude line at 60° 46.10' N, including the WNH THA and SHA, were open to commercial drift gillnet and purse seine harvest up to a line of buoys seaward of the barrier net. Additionally, waters of the Granite Bay Subdistrict were open to commercial drift gillnet harvest. Waters north of Point Pakenham were open to commercial drift gillnet and purse seine harvest for 14 hours beginning at 06:00 July 23, and again for 48 hours beginning at 06:00 Tuesday, July 24.

[r] Waters within College Fiord, north of a latitude line at 61°00.45'N (Pt. Pakenham), were open to commercial drift gillnet and purse seine harvest.

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[s] Waters of the Granite Bay Subdistrict, and waters of the Esther Subdistrict excluding the WNH THA and SHA, were open to commercial drift gillnet and purse seine harvest for 14 hours beginning 06:00 July 28. Waters of the Coghill District within College Fiord, north of a latitude line at 61°00.45'N (Pt. Pakenham), were open to commercial drift gillnet and purse seine harvest for the entirety of the period.

[t] Waters within College Fiord, north of a latitude line at 61° 00.45'N (Pt. Pakenham), will open to commercial drift gillnet and purse seine harvest

[u] Waters including the Esther Subdistrict, WNH THA and SHA up to a line of buoys in front of the barrier net were open to commercial drift gillnet and purse seine harvest. Waters inside the Bettles Bay, Hummer Bay and Pigot Bay SHTF Markers were closed.

[v] Waters including the Esther Subdistrict and WNH SHA south of 60° 47.78' N. were open to commercial drift gillnet and purse seine harvest.Waters inside the Bettles Bay, Hummer Bay and Pigot Bay SHTF Markers were closed.

[w] Waters excluding the WNH THA and SHA were open to commercial drift gillnet and purse seine harvest. Waters inside the Bettles Bay, Hummer Bay and Pigot Bay SHTF Markers were closed.

[x] Waters excluding the WNH THA and SHA were open to commercial drift gillnet and purse seine harvest.

[y] Waters excluding the WNH THA and SHA, Esther Subdistrict and Granite Bay Subdistrict were open to commercial drift gillnet and purse seine harvest.

[z] Waters excluding the WNH SHA were open.

[aa] Waters including the WNH SHA up to a line of buoys seaward of the barrier net were open.

[ab] Waters including the WNH SHA up to a line of buoys seaward of the barrier net were open to drift gillnet fishing only.

Appendix B5.–Coghill District commercial common property purse seine salmon harvest by period, 2012.

Period	Date	Emergency Order Issued	Permits Hours	Permits Fished	Permits Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
11[a]	7/5–7/8	2-F-E-040-12	72	20	28	12	98	40,751	248,412	19	54	464	1,915	5,733	41,572
14[a]	7/12–7/15	2-F-E-052-12	84	11	13	1	10	6,652	48,935	1	16	1,229	4,611	660	4,927
19[b]	7/21–7/22	2-F-E-058-12	36	36	68	0	0	2,675	12,453	0	0	62,500	258,691	140,348	860,741
20[c]	7/23–7/26	2-F-E-060-12	72	40	82	0	0	1,467	9,735	0	0	149,213	554,557	45,188	332,262
21[d]	7/26–7/27	2-F-E-065-12	36	4	4	1	3	40	284	0	0	10,098	36,729	133	994
22[e]	7/28–7/30	2-F-E-092-12	60	57	74	1	26	1,028	7,041	33	323	349,680	1,375,680	3,830	29,087
23[f]	8/1	2-F-E-093-12	14	5	5	0	0	19	151	6	45	8,095	34,212	242	1,998
24[g]	8/4	2-F-E-115-12	14	62	76	0	0	100	618	60	487	586,152	2,212,127	523	3,874
25[g]	8/5	2-F-E-116-12	14	5	5	0	0	8	46	5	35	25,255	101,018	57	400
26[h]	8/6	2-F-E-116-12	14	25	26	0	0	15	111	19	136	110,479	430,910	1,127	8,370
27[i]	8/8	2-F-E-117-12	14	40	42	0	0	49	338	30	194	242,435	877,498	662	4,958
28[i]	8/10	2-F-E-118-12	14	34	38	0	0	22	134	37	267	183,101	679,957	328	2,636
29[i]	8/12	2-F-E-119-12	14	26	28	0	0	21	133	32	243	174,913	663,742	44	371
30[j]	8/14	2-F-E-120-12	14	36	36	0	0	10	66	6	48	141,758	539,226	30	221
31[j]	8/16	2-F-E-121-12	14	34	34	0	0	5	25	14	98	78,970	323,172	15	113
32[j]	8/18	2-F-E-122-12	14	24	24	0	0	6	30	34	209	64,628	238,439	1	5
33[j]	8/20	2-F-E-122-12	14	16	16	0	0	4	18	18	132	23,647	84,827	0	0
34[k]	8/22	2-F-E-123-12	12	0	0	0	0	0	0	0	0	0	0	0	0
35[k]	8/24	2-F-E-124-12	12	0	0	0	0	0	0	0	0	0	0	0	0
36[l]	8/26	2-F-E-125-12	12	4	5	0	0	14	66	332	2,338	48,424	150,330	45	336
37[l]	8/27	2-F-E-125-12	12	4	4	0	0	1	4	176	1,476	6,664	25,998	7	62
38[l]	8/28	2-F-E-125-12	12	5	5	0	0	2	7	1,105	6,943	27,053	83,803	34	237
39[l]	8/29	2-F-E-125-12	12	6	6	0	0	1	4	313	2,013	3,937	12,052	3	19
40[l]	8/30	2-F-E-126-12	12	5	6	0	0	3	21	517	3,476	4,827	18,155	0	0
41[l]	8/31	2-F-E-126-12	12	1	1	0	0	0	0	69	488	365	1,095	0	0

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Period	Date	Emergency Order Issued	Permits Hours	Fished	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
42 [l]	9/1	2-F-E-127-12	12	1	1	0	0	0	0	118	826	174	522	0	0
43 [l]	9/2	2-F-E-127-12	12	1	1	0	0	0	0	210	1,471	255	867	0	0
44 [l]	9/3	2-F-E-127-12	12	1	1	0	0	0	0	115	808	48	169	0	0
45 [m]	9/4	2-F-E-128-12	12	0	0	0	0	0	0	0	0	0	0	0	0
46 [m]	9/5	2-F-E-128-12	12	0	0	0	0	0	0	0	0	0	0	0	0
Total			670	136	625	15	137	52,890	328,611	2,944	19,847	2,298,695	8,689,494	199,010	1,293,183
Average Weights							9.13		6.21		6.74		3.78		6.50

[a] Waters north of a latitude line at 61°00.45'N. (Point Pakenham), were open to commercial drift gillnet and purse seine harvest.

[b] Waters excluding the Bettles Bay Subdistrict and waters south of a line at 60° 46.10' N were open. The WNH THA and SHA were open to drift gillnet and purse seine harvest.

[c] Waters of the Esther Subdistrict north of a latitude line at 60° 46.10' N, including the WNH THA and SHA, were open to commercial drift gillnet and purse seine harvest up to a line of buoys seaward of the barrier net. Waters north of Point Pakenham were open to commercial drift gillnet and purse seine harvest for 14 hours beginning at 06:00 July 23, and again for 48 hours beginning at 06:00 Tuesday, July 24.

[d] Waters within College Fiord, north of a latitude line at 61°00.45'N (Pt. Pakenham), were open to commercial drift gillnet and purse seine harvest.

[e] Waters of the Granite Bay Subdistrict, and waters of the Esther Subdistrict excluding the WNH THA and SHA, were open to commercial drift gillnet and purse seine harvest for 14 hours beginning 06:00 July 28. Waters of the Coghill District within College Fiord, north of a latitude line at 61°00.45'N (Pt. Pakenham), were open to commercial drift gillnet and purse seine harvest for the entirety of the period.

[f] Waters within College Fiord, north of a latitude line at 61º 00.45'N (Pt. Pakenham), will open to commercial drift gillnet and purse seine harvest

[g] Waters including the Esther Subdistrict, WNH THA and SHA up to a line of buoys in front of the barrier net were open to commercial drift gillnet and purse seine harvest. Waters inside the Bettles Bay, Hummer Bay and Pigot Bay SHTF Markers were closed.

[h] Waters including the Esther Subdistrict and WNH SHA south of 60° 47.78' N. were open to commercial drift gillnet and purse seine harvest. Waters inside the Bettles Bay, Hummer Bay and Pigot Bay SHTF Markers were closed.

[i] Waters excluding the WNH THA and SHA were open to commercial drift gillnet and purse seine harvest. Waters inside the Bettles Bay, Hummer Bay and Pigot Bay SHTF Markers were closed.

[j] Waters excluding the WNH THA and SHA were open to commercial drift gillnet and purse seine harvest.

[k] Waters excluding the WNH THA and SHA, Esther Subdistrict and Granite Bay Subdistrict were open to commercial drift gillnet and purse seine harvest.

[l] Waters excluding the WNH SHA were open.

[m] Waters including the WNH SHA up to a line of buoys seaward of the barrier net were open.

Appendix B6.–Coghill District commercial common property drift gillnet salmon harvest by statistical week, 2012.

			Permits		Chinook		Sockeye		Coho		Pink		Chum	
Week	Dates	Hours	Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
22	5/27–6/2	64	50	155	9	71	729	5,495	0	0	2	8	35,592	271,437
23	6/3–6/9	108	140	709	40	469	7,926	58,489	0	0	0	0	159,464	1,113,127
24	6/10–6/16	120	219	1,349	40	461	24,688	177,673	0	0	1	3	234,405	1,578,964
25	6/17–6/23	120	230	1,192	15	262	64,308	483,876	0	0	62	168	174,641	1,205,091
26	6/24–6/30	116	205	1,387	17	112	91,886	689,266	0	0	366	1,153	340,372	2,439,716
27	7/1–7/7	112	169	1,075	10	109	85,071	646,906	4	32	5,508	16,745	334,937	2,318,926
28	7/8–7/14	144	202	1,393	4	65	64,740	490,583	4	26	30,165	102,855	493,831	3,468,006
29	7/15–7/21	156	230	1,463	3	32	39,507	283,398	45	353	84,392	281,846	456,654	3,247,291
30	7/22–7/28	146	90	266	4	35	3,158	21,282	52	347	81,413	267,046	20,630	142,063
31	7/29–8/4	70	145	249	0	0	378	2,539	111	777	131,291	476,915	1,759	12,178
32	8/5–8/11	56	197	829	3	39	501	3,375	498	3,608	397,987	1,430,374	3,786	21,256
33	8/12–8/18	56	187	762	2	51	331	2,277	1,169	7,519	313,587	1,093,690	814	5,442
34	8/19–8/25	38	54	78	0	0	48	311	276	1,863	33,651	116,000	78	518
35	8/26–9/1	84	28	85	0	0	15	105	2,647	17,585	35,672	107,761	20	137
36	9/2–9/8	108	18	61	0	0	3	24	2,918	20,331	11,791	41,014	0	0
37	9/9–9/15	148	0	0	0	0	0	0	0	0	0	0	0	0
38	9/16–9/22	144	0	0	0	0	0	0	0	0	0	0	0	0
39	9/23–9/29	20	0	0	0	0	0	0	0	0	0	0	0	0
Total		1,810	359	11,053	147	1,706	383,289	2,865,599	7,724	52,441	1,125,888	3,935,578	2,256,983	15,824,153
Average Weights						11.61		7.48		6.79		3.50		7.01

Appendix B7.–Coghill District commercial common property purse seine salmon harvest by statistical week, 2012.

			Permits		Chinook		Sockeye		Coho		Pink		Chum	
Week	Dates	Hours	Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
27	7/1–7/7	112	20	28	12	98	40,751	248,412	19	54	464	1,915	5,733	41,572
28	7/8–7/14	144	11	13	1	10	6,652	48,935	1	16	1,229	4,611	660	4,927
29	7/15–7/21	156	30	49	0	0	1,521	6,688	0	0	26,892	125,820	110,719	649,784
30	7/22–7/28	146	68	164	2	29	3,473	21,259	33	323	523,103	2,009,865	78,374	569,877
31	7/29–8/4	70	67	96	0	0	335	2,335	66	532	615,743	2,336,311	1,171	9,295
32	8/5–8/11	56	62	111	0	0	94	629	91	632	561,270	2,089,383	2,174	16,364
33	8/12–8/18	56	50	122	0	0	42	254	86	598	460,269	1,764,579	90	710
34	8/19–8/25	38	16	16	0	0	4	18	18	132	23,647	84,827	0	0
35	8/26–9/1	84	11	28	0	0	21	102	2,630	17,560	91,444	291,955	89	654
36	9/2–9/8	108	1	2	0	0	0	0	325	2,279	303	1,036	0	0
37	9/9–9/15	148	0	0	0	0	0	0	0	0	0	0	0	0
38	9/16–9/22	144	0	0	0	0	0	0	0	0	0	0	0	0
39	9/23–9/29	20	0	0	0	0	0	0	0	0	0	0	0	0
Total		1,282	136	629	15	137	52,893	328,632	3,269	22,126	2,304,364	8,710,303	199,010	1,293,183
Average Weights						9.13		6.21		6.77		3.78		6.50

Appendix B8.–Commercial common property harvest by species in the Coghill District, 1984–2012.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
	Drift Gillnet					
1984	396	94,956	563	897,496	264,878	1,258,289
1985	380	339,296	1,131	454,531	246,824	1,042,162
1986	617	381,565	789	68,887	218,971	670,829
1987	352	377,454	13,396	712,897	318,842	1,422,941
1988	501	82,294	41,307	1,314,061	346,388	1,784,551
1989	364	106,114	80,737	628,522	194,584	1,010,321
1990	126	11,988	128,605	1,907,510	301,209	2,349,438
1991	92	3,888	78,363	231,501	34,223	348,067
1992	242	57,919	86,782	167,384	182,433	494,760
1993	576	66,532	37,898	141,279	635,208	881,493
1994	390	12,928	50,879	58,334	554,181	676,712
1995	468	57,797	29,343	161,493	379,659	628,760
1996	575	177,530	20,926	59,447	612,969	871,447
1997	862	227,231	5,618	154,969	689,977	1,078,657
1998	605	59,463	2,925	383,604	347,317	793,914
1999	401	106,028	1,114	32,408	689,210	829,161
2000	269	176,452	82,869	88,228	1,643,801	1,991,619
2001	216	87,539	3,185	308,707	1,142,449	1,542,096
2002	203	59,758	784	6,457	1,660,443	1,727,645
2003	114	161,872	9,900	44,419	726,431	942,736
2004	126	216,156	10,200	20,081	534,959	781,522
2005	115	94,748	52,416	72,110	880,967	1,100,356
2006	71	96,435	97,002	24,659	266,233	484,400
2007	89	173,430	60,982	65,407	858,179	1,158,087
2008	103	177,974	80,527	854,465	2,308,231	3,421,300
2009	174	103,415	19,168	276,925	1,323,728	1,723,410
2010	206	87,465	5,498	3,333,106	2,512,005	5,938,280
2011	220	198,376	79,419	722,248	1,092,917	2,093,180
10-Year Average	124	135,474	41,372	170,565	1,069,896	1,417,432
2012	147	383,289	7,724	1,125,888	2,256,983	3,774,031

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Year	Chinook	Sockeye	Coho	Pink	Chum	Total
	Purse Seine					
1984	0	21	0	10,911	1,126	12,058
1985	85	10,757	112	69,242	19,330	99,526
1986	186	18,514	98	145,706	27,078	191,582
1987	58	38,899	1,956	865,671	59,252	965,836
1988	63	1,623	15,787	1,600,481	11,755	1,629,709
1989	61	2,030	39,484	3,296,965	124,639	3,463,179
1990	2	286	11,819	785,278	10,951	808,336
1991	11	1,562	621	1,980,074	11,519	1,993,787
1992	6	765	27,382	196,503	1,603	226,259
1993	46	6,250	1,760	352,468	3,645	364,169
1994	50	21,060	30,517	3,538,760	3,575	3,593,962
1995	33	20,670	5,337	917,200	2,597	945,837
1996	1	2,640	5,319	1,484,422	463	1,492,845
1997	7	5,694	1,269	1,875,617	33,139	1,915,726
1998	20	1,702	1,531	2,845,157	21,600	2,870,010
1999	34	3,229	338	3,509,722	621,349	4,134,672
2000	1	2,984	31,991	3,271,314	1,338	3,307,628
2001	8	2,398	356	648,335	3,802	654,899
2002	5	2,068	2,431	1,271,180	794,794	2,070,478
2003	15	125,641	724	11,439,915	750,834	12,317,129
2004	2	195	133	23,609	386,042	409,981
2005	1	10,722	1,558	3,246,778	275,783	3,534,842
2006	9	5,944	16,995	1,348,377	297,576	1,668,901
2007	9	12,472	24,602	2,334,590	318,626	2,690,299
2008	14	551	36,831	6,585,095	9,358	6,631,849
2009	3	1,337	1,758	1,028,789	12,926	1,044,813
2010	0	779	434	10,919,455	3,207	10,923,875
2011	4	843	16,565	1,674,736	166	1,692,314
10-Year Average	7	19,866	10,629	3,409,792	355,742	3,796,036
2012	15	52,893	3,269	2,304,364	199,010	2,559,551

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Year	Chinook	Sockeye	Coho	Pink	Chum	Total
	Combined Purse Seine and Drift Gillnet					
1984	396	94,977	563	908,407	266,004	1,270,347
1985	465	350,053	1,243	523,773	266,154	1,141,688
1986	803	400,079	887	214,593	246,049	862,411
1987	410	416,353	15,352	1,578,568	378,094	2,388,777
1988	564	83,917	57,094	2,914,542	358,143	3,414,260
1989	425	108,144	120,221	3,925,487	319,223	4,473,500
1990	128	12,274	140,424	2,692,788	312,160	3,157,774
1991	103	5,450	78,984	2,211,575	45,742	2,341,854
1992	248	58,684	114,164	363,887	184,036	721,019
1993	622	72,782	39,658	493,747	638,853	1,245,662
1994	440	33,988	81,396	3,597,094	557,756	4,270,674
1995	501	78,467	34,680	1,078,693	382,256	1,574,597
1996	576	180,170	26,245	1,543,869	613,432	2,364,292
1997	869	232,925	6,887	2,030,586	723,116	2,994,383
1998	625	61,165	4,456	3,228,761	368,917	3,663,924
1999	435	109,257	1,452	3,542,130	1,310,559	4,963,833
2000	270	179,436	114,860	3,359,542	1,645,139	5,299,247
2001	224	89,937	3,541	957,042	1,146,251	2,196,995
2002	208	61,826	3,215	1,277,637	2,455,237	3,798,123
2003	129	287,513	10,624	11,484,334	1,477,265	13,259,865
2004	128	216,351	10,333	43,690	921,001	1,191,503
2005	116	105,470	53,974	3,318,888	1,156,750	4,635,198
2006	80	102,379	113,997	1,373,036	563,809	2,153,301
2007	98	185,902	85,584	2,399,997	1,176,804	3,848,385
2008	117	178,525	117,358	7,439,560	2,317,589	10,053,149
2009	177	104,752	20,926	1,305,714	1,336,654	2,768,223
2010	206	88,244	5,932	14,252,561	2,515,212	16,862,155
2011	224	199,219	95,984	2,396,984	1,093,083	3,785,494
10-Year Average	148	153,018	51,793	4,529,240	1,501,340	6,235,540
2012	162	436,182	10,993	3,430,252	2,455,993	6,333,582

Appendix B9.–Estimated age and sex composition of sockeye salmon harvested in the Coghill District commercial common property drift gillnet and purse seine fisheries, 2012.

Stratum dates:	07/05 – 09/19	Brood Year and Age Class [a]							
Sampling date:	07/18 – 07/18	2009	2008		2007		2006		
Sample size:	381	0.2	0.3	1.2	1.3	2.2	1.4	2.3	Total
Female	Percentage of sample	0.1	0.1	14.7	40.3	0.0	0.2	0.4	55.8
	Number in harvest	336	336	64,204	175,603	206	1,051	1,668	243,404
Male	Percentage of sample	0.0	0.1	7.5	35.8	0.3	0.0	0.1	44.0
	Number in harvest	206	346	32,851	156,279	1,430	173	541	191,826
Total	Percentage of sample	0.1	0.2	22.3	76.2	0.4	0.3	0.5	100.0
	Number in harvest	541	682	97,390	332,498	1,636	1,224	2,210	436,182
	Standard error	394	415	4,709	4,880	816	762	912	

[a] Fish with resorbed scales have been removed (n = 37).

Appendix B10.–Estimated age and sex composition of the sockeye salmon escapement through the weir on the outlet stream of Coghill Lake, 2012.

Strata Combined:	06/21 – 07/28	Brood Year and Age Class [a]							
Sampling dates:	07/03 – 07/18	2009	2008		2007		2006		
Sample size:	1469	1.1	1.2	2.1	1.3	2.2	1.4	2.3	Total [b]
Female	Percentage of sample	0.1	1.1	0.0	50.5	0.1	0.2	0.5	52.6
	Number in escapement	92	816	0	37,889	92	127	401	39,418
Male	Percentage of sample	1.5	4.1	0.1	40.4	0.4	0.2	0.1	46.8
	Number in escapement	1,133	3,071	92	30,269	291	127	92	35,075
Total	Percentage of sample	1.6	5.3	0.1	91.5	0.5	0.3	0.7	100.0
	Number in escapement	1,225	3,948	92	68,583	383	254	493	74,978
	Standard error	267	465	71	584	152	127	171	

[a] Fish with resorbed scales have been removed (21).

[b] Total includes 3,000 fish inriver below the weir when it was pulled for the season.

Appendix B11.–Commercial common property salmon harvest by period in the Unakwik District drift gillnet and purse seine fisheries, 2012.

Period	Date [a]	EO Issued	Hours	Permits	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
Drift Gillnet															
01	6/14–6/15	2-F-E-024-12	24	0	0	0	0	0	0	0	0	0	0	0	0
02	6/18–6/19	2-F-E-026-12	24	0	0	0	0	0	0	0	0	0	0	0	0
03	6/21–6/22	2-F-E-031-12	24	2	2	0	0	941	7,428	0	0	0	0	0	0
04	6/25–6/26	2-F-E-033-12	24	2	2	0	0	147	1,169	0	0	0	0	0	0
05	6/28–6/29	2-F-E-035-12	24	0	0	0	0	0	0	0	0	0	0	0	0
06	7/2–7/3	2-F-E-037-12	24	0	0	0	0	0	0	0	0	0	0	0	0
07	7/5–7/6	2-F-E-040-12	24	0	0	0	0	0	0	0	0	0	0	0	0
08	7/9–7/10	2-F-E-047-12	36	1	1	0	0	129	1,290	0	0	0	0	0	0
09	7/12–7/14	2-F-E-052-12	48	2	2	0	0	120	814	0	0	16	64	2	18
10	7/16–7/17	2-F-E-054-12	36	0	0	0	0	0	0	0	0	0	0	0	0
Total			288	5	7	0	0	1,337	10,701	0	0	16	64	2	18
Average Weight							0.00		8.00		0.00		4.00		9.00
Purse Seine															
01	6/14–6/15	2-F-E-024-12	24	0	0	0	0	0	0	0	0	0	0	0	0
02	6/18–6/19	2-F-E-026-12	24	0	0	0	0	0	0	0	0	0	0	0	0
03	6/21–6/22	2-F-E-031-12	24	0	0	0	0	0	0	0	0	0	0	0	0
04	6/25–6/26	2-F-E-033-12	24	1	1	0	0	63	452	0	0	0	0	0	0
05	6/28–6/29	2-F-E-035-12	24	0	0	0	0	0	0	0	0	0	0	0	0
06	7/2–7/3	2-F-E-037-12	24	2	2	0	0	307	1,998	0	0	18	65	148	1,180
07	7/5–7/6	2-F-E-040-12	24	0	0	0	0	0	0	0	0	0	0	0	0
08	7/9–7/10	2-F-E-047-12	36	0	0	0	0	0	0	0	0	0	0	0	0
09	7/12–7/14	2-F-E-052-12	48	0	0	0	0	0	0	0	0	0	0	0	0
10	7/16–7/17	2-F-E-054-12	36	0	0	0	0	0	0	0	0	0	0	0	0
Total			288	3	3	0	0	370	2,450	0	0	18	65	148	1,180
Average Weight							0.0		6.62		0.0		3.61		7.97

[a] All waters designated for commercial salmon fishing in the Unakwik District were open for all periods.

Appendix B12.–Commercial common property salmon harvest in the Unakwik District, 1983–2012.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
			Drift Gillnet			
1983	3	13,215	0	1,515	1,426	16,159
1984	2	18,522	0	27,742	7,125	53,391
1985	26	27,532	22	9,191	3,942	40,713
1986	5	25,759	1	1,973	2,463	30,201
1987	2	5,894	1	4,871	1,356	12,124
1988	15	8,589	0	281	1,504	10,389
1989	31	21,412	27	41,820	404	63,694
1990	3	247	127	9,986	23	10,386
1991	13	4,482	11	12,299	118	16,923
1992	3	2,224	13	3,972	94	6,306
1993	5	14,691	4	3,338	978	19,016
1994	0	548	0	300	0	848
1995	8	2,116	0	1	36	2,161
1996	3	6,063	0	17	694	6,777
1997	3	3,411	0	0	177	3,591
1998	10	13,651	55	1,932	586	16,234
1999	4	8,544	5	0	296	8,849
2000	0	1,119	0	0	20	1,139
2001	3	2,298	2	4	44	2,351
2002	5	9,825	14	0	761	10,605
2003	0	2,163	0	0	0	2,163
2004	5	7,438	1	0	168	7,612
2005	6	23,027	27	1,540	858	25,458
2006	1	698	1	36	171	907
2007	1	15,146	0	0	222	15,369
2008	0	389	0	878	58	1,325
2009	1	1,975	0	0	374	2,350
2010	0	15	0	0	0	15
2011	0	1,390	0	1	30	1,421
10-Year Average	0	6,207	4	246	264	6,723
2012	0	1,337	0	16	2	1,355

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Year	Chinook	Sockeye	Coho	Pink	Chum	Total
			Purse Seine			
1983	0	6	0	3,344	716	4,066
1984	0	0	0	0	0	0
1985	0	138	0	28,210	4,123	32,471
1986	0	76	0	4,718	4,675	9,469
1987	0	146	0	187,752	6,549	194,447
1988	0	667	7	57,844	23,860	82,378
1989	0	0	0	0	0	0
1990	0	0	0	0	0	0
1991	0	819	3	121,068	79	121,969
1992	0	42	2	13,264	119	13,427
1993	0	79	0	3,233	67	3,379
1994	0	226	102	388,901	73	389,302
1995	0	0	0	0	0	0
1996	0	0	0	0	0	0
1997	0	0	0	0	0	0
1998	0	0	0	0	0	0
1999	1	386	0	0	2	389
2000	0	0	0	20,485	0	20,485
2001	0	0	0	0	0	0
2002	3	1,141	16	133	123	1,416
2003	0	1,017	0	2,261	20	3,298
2004	0	0	0	0	0	0
2005	0	80	0	81,858	0	81,938
2006	0	0	0	0	0	0
2007	0	547	0	0	4	551
2008	0	0	0	0	0	0
2009	0	1,153	0	0	10	1,163
2010	1	31	0	34	26	92
2011	0	0	0	0	0	0
10-Year Average	0	397	2	8,429	18	8,846
2012	0	370	0	18	148	536

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Year	Chinook	Sockeye	Coho	Pink	Chum	Total
			Combined Gear			
1983	3	13,221	0	4,859	2,142	20,225
1984	2	18,522	0	27,742	7,125	53,391
1985	26	27,670	22	37,401	8,065	73,184
1986	5	25,835	1	6,691	7,138	39,670
1987	2	6,040	1	192,623	7,905	206,571
1988	15	9,256	0	58,125	25,364	92,760
1989	31	21,412	27	41,820	404	63,694
1990	3	247	127	9,986	23	10,386
1991	13	5,301	11	133,367	197	138,889
1992	3	2,266	13	17,236	213	19,731
1993	5	14,770	4	6,571	1,045	22,395
1994	0	774	0	389,201	73	390,048
1995	8	2,116	0	1	36	2,161
1996	3	6,063	0	17	694	6,777
1997	3	3,411	0	0	177	3,591
1998	10	13,651	55	1,932	586	16,234
1999	5	8,930	5	0	298	9,238
2000	0	1,119	0	20,485	20	21,624
2001	3	2,298	2	4	44	2,351
2002	8	10,966	14	133	884	12,005
2003	0	3,180	0	2,261	20	5,461
2004	5	7,438	1	0	168	7,612
2005	6	23,107	27	83,398	858	107,396
2006	1	698	1	36	171	907
2007	1	15,693	0	0	226	15,920
2008	0	389	0	878	58	1,325
2009	1	3,128	0	0	384	3,513
2010	1	46	0	34	26	107
2011	1,390	1,390	0	1	30	2,811
10-Year Average	141	6,604	4	8,674	283	15,706
2012	0	1,707	0	34	150	1,891

Appendix B13.–Port Chalmers Subdistrict commercial common property drift gillnet harvest of salmon by period, 2012.

Period	Date	Emergency Orders Issued	Hours	Permits	Landings	Chinook		Sockeye		Coho		Pink		Chum	
						Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1	5/31–6/3	2-F-E-007-12	84	2	3	3	62	0	0	0	0	0	0	420	3,216
2	6/4–6/6	2-F-E-009-12	60	2	2	0	0	0	0	0	0	0	0	204	1,545
3	6/7–6/10	2-F-E-013-12	84	13	33	2	53	10	68	0	0	0	0	4,861	38,991
4	6/11–6/13	2-F-E-016-12	60	6	22	0	0	16	123	0	0	0	0	2,386	19,654
5	6/14–6/17	2-F-E-022-12	84	5	26	0	0	53	340	0	0	0	0	2,965	23,678
6	6/18–6/20	2-F-E-026-12	60	13	62	0	0	184	1,468	0	0	0	0	16,738	133,964
7	6/21–6/24	2-F-E-031-12	84	21	86	4	73	134	935	0	0	43	108	20,073	162,904
8	6/25–6/27	2-F-E-033-12	60	14	64	0	0	12	68	0	0	0	0	12,004	95,694
9	6/28 – 7/1	2-F-E-035-12	84	15	110	0	0	19	128	0	0	0	0	47,118	369,185
10	7/2 – 7/4	2-F-E-037-12	60	26	143	27	86	38	284	0	0	148	592	85,748	626,068
11	7/5 – 7/8	2-F-E-040-12	84	24	123	1	8	1	5	0	0	0	0	37,603	270,450
12	7/9 – 7/11	2-F-E-040-12	60	10	53	0	0	0	0	0	0	0	0	23,944	164,202
13	7/12 – 7/15	2-F-E-047-12	84	11	35	0	0	0	0	0	0	0	0	31,400	197,405
14	7/16 – 7/18	2-F-E-054-12	60	10	27	3	81	2	13	0	0	215	618	26,233	191,727
15	7/19 – 7/22	2-F-E-054-12	84	8	13	4	44	5	34	0	0	1,007	3,378	2,854	19,099
16	7/23 – 7/25	2-F-E-056-12	60	8	18	0	0	3	21	0	0	2,137	7,967	5,892	45,119
17	7/26 – 7/29	2-F-E-065-12	84	9	32	2	15	8	56	1	7	7,259	30,100	3,394	23,192
18	7/29 – 7/30	2-F-E-067-12	28	4	11	0	0	1	7	26	202	2,716	11,776	1,300	9,097
Total			1,264	54	863	46	422	486	3,550	27	209	13,525	54,539	325,137	2,395,190
Average Weight							9.17		7.31		7.74		4.03		7.37

Note: Waters of the Port Chalmers Subdistrict were open for all periods. The Port Chalmers Subdistrict consists of waters on the west side of Montague Island that are east of a line connecting the following points: 60°20.00' N., 147°26.59' W., 60°14.75' N., 147°35.35' W., 60°02.50' N., 147°44.41' W.

Appendix B14.–Port Chalmers Subdistrict drift gillnet commercial common property harvest of salmon by statistical week, 2012.

			Permits		Chinook		Sockeye		Coho		Pink		Chum	
Week	Dates	Hours	Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
22	5/27–6/2	64	1	2	3	62	0	0	0	0	0	0	58	499
23	6/3–6/9	144	13	25	2	53	8	51	0	0	0	0	4,605	36,279
24	6/10–6/16	144	12	52	0	0	27	188	0	0	0	0	4,869	39,913
25	6/17–6/23	144	21	139	4	73	328	2,483	0	0	43	108	34,574	278,088
26	6/24–6/30	144	24	159	0	0	63	393	0	0	0	0	46,635	370,006
27	7/1–7/7	144	31	272	28	94	41	304	0	0	148	592	132,262	972,011
28	7/8–7/14	144	13	105	0	0	0	0	0	0	0	0	54,987	356,341
29	7/15–7/21	144	16	48	7	125	7	47	0	0	1,222	3,996	36,561	264,645
30	7/22–7/28	144	12	50	2	15	11	77	1	7	9,396	38,067	9,286	68,311
31	7/29–8/4	48	4	11	0	0	1	7	26	202	2,716	11,776	1,300	9,097
Total		1,264	54	863	46	422	486	3,550	27	209	13,525	54,539	325,137	2,395,190
Average Weights						9.17		7.31		7.74		4.03		7.37

Note: Waters of the Port Chalmers Subdistrict were open for all periods. The Port Chalmers Subdistrict consists of waters on the west side of Montague Island that are east of a line connecting the following points: 60°20.00' N., 147°26.59' W., 60°14.75' N., 147°35.35' W., 60°02.50' N., 147°44.41' W.

Appendix B15.–Total commercial common property harvest by species in the Port Chalmers Subdistrict, 2007–2012.

Year	Number of permits fished	Gear Type	Numbers of fish					
			Chinook	Sockeye	Coho	Pink	Chum	Total
2007	57	purse seine	671	5,507	40	492,435	740,554	1,239,207
2008	81	purse seine	88	10,225	23	216,013	1,233,909	1,460,258
2009	207	drift gillnet	87	10,208	2,318	67,978	672,918	753,509
2010	113	drift gillnet	188	5,512	76	15,794	243,456	265,026
2011	44	drift gillnet	79	1,613	618	4,435	103,102	109,847
5-Year Average	100		223	6,613	615	159,331	598,788	765,569
2012	54	drift gillnet	46	486	27	13,525	325,137	339,221

APPENDIX C

Appendix C1.–Anticipated daily and cumulative salmon escapement versus actual escapement past the Eshamy River weir, 2012.

	Sockeye salmon						Pink salmon[a]		Chum salmon	
			Apportioned BEG (13,000 to 28,000)							
	Actual		Projected minimum		Projected maximum		Actual		Actual	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
7/1			75	75	162	162				
7/2			73	148	158	320				
7/3			16	165	35	355				
7/4			0	165	0	355				
7/5			16	181	35	390				
7/6			38	219	83	472				
7/7			31	251	68	540				
7/8			53	304	114	655				
7/9			39	343	84	739				
7/10	0	0	50	393	108	847	0	0	0	0
7/11	1	1	64	457	137	984	0	0	0	0
7/12	0	1	50	506	107	1,091	0	0	1	1
7/13	1	2	54	561	117	1,208	0	0	0	1
7/14	0	2	67	627	143	1,351	0	0	11	12
7/15	0	2	66	693	143	1,494	0	0	0	12
7/16	46	48	95	788	204	1,697	0	0	13	25
7/17	19	67	80	868	171	1,869	0	0	3	28
7/18	0	67	69	937	149	2,017	0	0	0	28
7/19	0	67	67	1,003	144	2,161	0	0	0	28
7/20	2	69	57	1,060	123	2,284	0	0	0	28
7/21	32	101	105	1,165	225	2,510	0	0	0	28
7/22	0	101	102	1,267	219	2,729	0	0	0	28
7/23	12	113	104	1,371	223	2,952	3	3	0	28
7/24	2	115	152	1,522	327	3,279	0	3	0	28
7/25	0	115	185	1,707	398	3,677	0	3	0	28
7/26	23	138	212	1,919	456	4,133	0	3	0	28
7/27	0	138	184	2,102	395	4,528	0	3	0	28
7/28	0	138	155	2,258	334	4,862	0	3	0	28
7/29	48	186	112	2,370	242	5,105	3	6	3	31
7/30	6	192	242	2,612	521	5,626	0	6	0	31
7/31	0	192	144	2,757	311	5,937	0	6	0	31
8/1	2	194	66	2,822	142	6,079	1	7	0	31
8/2	172	366	151	2,973	325	6,404	5	12	0	31
8/3	1,178	1,544	144	3,117	310	6,714	20	32	0	31
8/4	688	2,232	194	3,311	417	7,131	14	46	0	31
8/5	0	2,232	165	3,476	356	7,487	0	46	0	31
8/6	441	2,673	202	3,678	435	7,922	1	47	0	31
8/7	481	3,154	237	3,915	511	8,432	2	49	0	31
8/8	41	3,195	289	4,204	623	9,055	0	49	0	31
8/9	863	4,058	300	4,504	646	9,701	1	50	0	31
8/10	912	4,970	364	4,868	784	10,484	16	66	0	31
8/11	981	5,951	296	5,164	638	11,122	24	90	0	31
8/12	1,213	7,164	347	5,511	748	11,870	64	154	0	31
8/13	1,180	8,344	347	5,858	747	12,618	130	284	3	34
8/14	56	8,400	440	6,299	948	13,566	31	315	0	34
8/15	905	9,305	391	6,690	843	14,409	337	652	0	34
8/16	1,006	10,311	431	7,121	929	15,337	236	888	1	35
8/17	870	11,181	362	7,482	779	16,116	153	1,041	0	35
8/18	155	11,336	441	7,923	950	17,066	81	1,122	0	35
8/19	6,356	17,692	329	8,253	709	17,775	990	2,112	0	35

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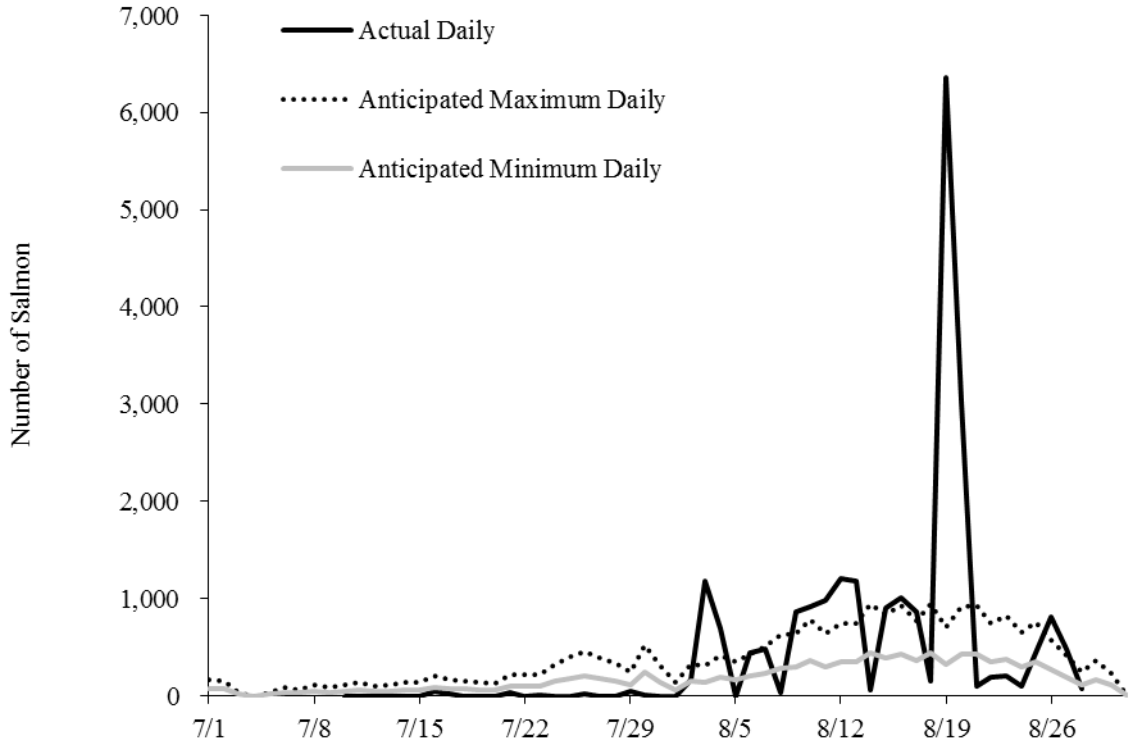
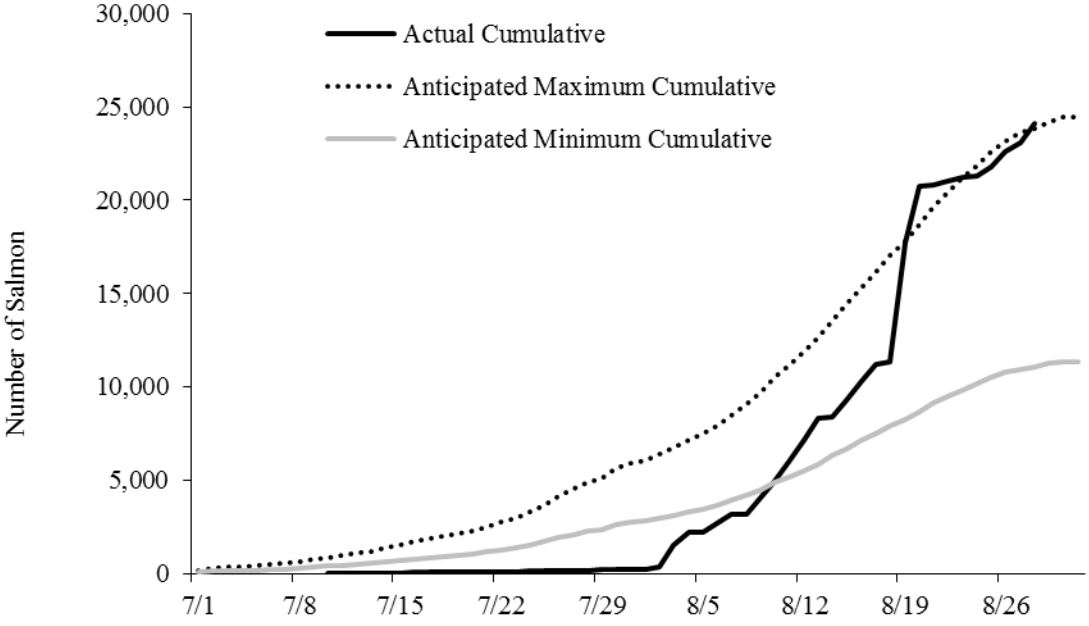
	Sockeye salmon						Pink salmon [a]		Chum salmon	
			Apportioned BEG (13,000 to 28,000)							
	Actual		Projected minimum		Projected maximum		Actual		Actual	
Date	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative	Daily	Cumulative
8/20	3,020	20,712	427	8,680	920	18,695	418	2,530	0	35
8/21	105	20,817	432	9,112	930	19,626	43	2,573	0	35
8/22	199	21,016	349	9,461	752	20,377	39	2,612	0	35
8/23	212	21,228	380	9,841	819	21,197	44	2,656	0	35
8/24	98	21,326	304	10,145	655	21,852	41	2,697	0	35
8/25	437	21,763	350	10,496	754	22,606	38	2,735	0	35
8/26	809	22,572	267	10,762	574	23,180	89	2,824	0	35
8/27	484	23,056	196	10,958	421	23,601	47	2,871	0	35
8/28	73	24,129 [b]	115	11,073	248	23,849	8	2,879	0	35
8/29			167	11,240	360	24,209				
8/30			109	11,349	235	24,444				
8/31			7	11,356	15	24,459				

[a] The weir is designed to prohibit passage of sockeye salmon until counted. Smaller pink salmon may pass through the weir uncounted.

[b] An estimated 1,000 sockeye salmon were observed below the weir on August 29 and are included in the season cumulative escapement.

Appendix C2.–Anticipated daily and cumulative sockeye salmon escapement versus actual escapement past the Eshamy River weir, 2012.





Appendix C3.–Salmon escapement by species past the Eshamy River weir, 1967 to 2012.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1967	0	10,821	192	10,433	1	21,447
1968	1	68,048	450	919	1	69,419
1969	0	61,196	96	3,095	2	64,389
1970	0	11,460	25	387	0	11,872
1971 [a]	0	954	97	3,179	0	4,230
1972 [b]	0	28,683	0	0	0	28,683
1973	0	10,202	205	1,698	0	12,105
1974 [b]	0	633	0	0	0	633
1975 [b]	0	1,724	0	0	0	1,724
1976 [b]	0	19,367	0	0	0	19,367
1977	0	11,746	230	32,080	0	44,056
1978	0	12,580	20	552	0	13,152
1979	0	12,169	5	3,654	1	15,829
1980	5	44,263	128	963	2	45,361
1981	1	23,048	249	5,956	13	29,267
1982	0	6,782	79	1,056	79	7,996
1983	0	10,348	40	7,047	4	17,439
1984	2	36,121	881	3,970	0	40,974
1985	0	26,178	96	6,271	0	32,545
1986	2	6,949	55	1,004	31	8,041
1987 [c]	0	0	0	0	0	
1988	2	31,747	48	1,205	1	33,003
1989	1	57,232	0	7,782	210	65,225
1990	0	14,477	43	2,209	5	16,734
1991	2	46,229	907	31,241	17	78,396
1992	1	36,237	52	3,004	5	39,299
1993	1	42,893	92	3,435	9	46,430
1994	1	64,660	1,184	12,061	87	77,993
1995	7	21,701	1,076	18,601	407	41,792
1996	2	5,271	108	7,959	9	13,349
1997	2	39,015	111	15,142	18	54,288
1998 [c]	0	0	0	0	0	
1999	1	27,057	194	32,756	3	60,011
2000	2	22,653	151	20,515	381	43,702
2001	0	55,187	335	21,027	176	76,725
2002	0	40,478	14	4,843	1,072	46,407
2003	2	39,845	NA	2,440	335	42,622
2004	0	13,443	0	1,518	0	14,961
2005	1	23,523	46	11,024	529	35,123
2006	0	41,823	201	3,585	608	46,217
2007	0	16,646	831	29,409	243	46,673
2008	0	18,494	27	2,060	20	20,601
2009	1	24,025	147	3,849	416	28,438
2010	0	16,291	114	2,268	84	18,757
2011	0	24,129	0	2,879	35	27,043
10-Year Average	0	25,870	153	6,388	334	32,745
2012 [c]	0	0	0	0	0	0

[a] Estimate may be low due to holes in weir; actual escapement is estimated to be more than 3,000 sockeye salmon.

[b] Passage of salmon other than sockeye salmon was not recorded.

[c] The Eshamy River weir was not in operation.

Appendix C4.–Total drift gillnet common property salmon harvest by period in the Eshamy District, 2012.

Period	Date	Emergency Orders	Hours	Permits	Landings	Chinook		Sockeye		Coho		Pink		Chum	
						Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1[a]	5/31–6/3	2-F-E-007-12	72	1	1	0	0	276	2,186	0	0	0	0	166	1,145
2[a]	6/4–6/6	2-F-E-009-12	48	14	17	0	0	603	4,623	0	0	0	0	877	6,118
3[a]	6/7–6/10	2-F-E-013-12	72	40	121	6	67	8,279	61,444	0	0	0	0	8,700	64,286
4[a]	6/11–6/13	2-F-E-016-12	48	128	326	9	80	26,312	189,018	0	0	1	5	17,204	117,729
5[a]	6/14–6/17	2-F-E-022-12	72	137	585	13	113	53,237	360,447	0	0	16	56	34,178	230,392
6[a]	6/18–6/20	2-F-E-026-12	48	201	652	6	54	95,805	674,644	0	0	20	75	29,682	204,328
7[a]	6/21–6/24	2-F-E-031-12	72	261	1,067	2	27	150,594	1,017,670	4	26	48	179	31,287	224,771
8[a]	6/25–6/27	2-F-E-033-12	48	174	651	5	58	131,185	862,691	3	34	748	2,801	34,825	247,285
9[b]	6/28 – 7/1	2-F-E-035-12	72	197	879	0	0	168,517	1,120,464	11	77	1,813	6,975	19,606	138,166
10[c]	7/2 – 7/4	2-F-E-037-12	48	171	602	4	23	130,924	862,570	7	54	4,406	16,293	29,334	209,102
11[b]	7/5 – 7/8	2-F-E-040-12	72	152	603	1	10	100,979	663,575	47	205	21,255	79,003	33,561	240,867
12[c]	7/9 – 7/10	2-F-E-047-12	36	99	273	2	13	46,176	298,965	18	126	10,008	38,129	8,880	62,465
13[a]	7/12 – 7/14	2-F-E-052-12	48	51	160	0	0	28,375	180,856	1	10	19,697	78,264	4,527	32,023
14[a]	7/16 –7/17	2-F-E-054-12	24	48	106	0	0	13,629	84,693	2	16	6,758	26,084	1,005	7,100
15[d]	7/19 – 7/21	2-F-E-056-12	48	22	56	0	0	6,571	45,024	1	8	4,255	16,148	231	1,671
16[e]	7/23 – 7/25	2-F-E-060-12	48	18	35	0	0	3,562	23,572	11	70	1,192	4,781	207	1,497
17[f]	7/26 – 7/28	2-F-E-065-12	48	25	56	2	24	4,191	29,329	3	24	3,598	15,189	243	1,806
18[e]	7/30 – 8/01	2-F-E-067-12	48	22	53	1	8	4,961	31,088	1	7	4,692	16,048	90	623
19[f]	8/2 – 8/4	2-F-E-069-12	48	12	32	0	0	9,962	63,899	3	18	930	3,135	41	277
20[g]	8/4	2-F-E-071-12	12	0	0	0	0	0	0	0	0	0	0	0	0
21[h]	8/5	2-F-E-071-12	12	0	0	0	0	0	0	0	0	0	0	0	0
22[e]	8/6 –8/8	2-F-E-071-12	48	8	12	1	3	512	3,525	8	51	4,085	16,843	38	266
23[f]	8/9 – 8/10	2-F-E-073-12	36	11	16	0	0	2,799	16,977	18	142	2,447	10,512	1	7

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Period		Date	Emergency Orders	Hours	Permits	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
24[e]	[e]	8/13	2-F-E-075-12	12	1	1	0	0	26	185	3	21	217	936	4	20
25[i]	[i]	8/14	2-F-E-076-12	14	12	14	0	0	144	931	51	347	2,765	9,778	13	80
26[i]	[i]	8/20	2-F-E-101-12	14	0	0	0	0	0	0	0	0	0	0	0	0
27[i]	[i]	8/27	2-F-E-103-12	12	0	0	0	0	0	0	0	0	0	0	0	0
28[i]	[i]	9/3	2-F-E-105-12	12	0	0	0	0	0	0	0	0	0	0	0	0
29[i]	[i]	9/6	2-F-E-107-12	12	5	5	0	0	0	0	0	0	0	0	74	517
30[i]	[i]	9/10	2-F-E-109-12	12	0	0	0	0	0	0	0	0	0	0	0	0
31[i]	[i]	9/13	2-F-E-111-12	12	0	0	0	0	0	0	0	0	0	0	0	0
32[i]	[i]	9/17	2-F-E-113-12	12	0	0	0	0	0	0	0	0	0	0	0	0
Total				1,240	355	6,323	52	480	987,619	6,598,376	192	1,236	88,951	341,234	254,774	1,792,541
Average Weight								9.23		6.68		6.44		3.84		7.04

[a] Waters excluding the Alternating Gear Zone (AGZ) were open.

[b] Waters excluding the AGZ were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to set gillnet harvest only.

[c] Waters excluding the AGZ were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to drift gillnet harvest only.

[d] Waters within the Main Bay Subdistrict and MBH THA and SHA, excluding the AGZ, were open.

[e] Waters within the Main Bay Subdistrict and MBH THA and SHA, excluding the AGZ, were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to set gillnet harvest only.

[f] Waters within the Main Bay Subdistrict and MBH THA and SHA, excluding the AGZ, were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to drift gillnet harvest only.

[g] Waters within the MGH AGZ were open to set gillnet harvest.

[h] Waters within the MBH AGZ were open to drift gillnet harvest.

[i] Waters within Eshamy Bay, west of a line from 147° 57.78' W long, 60° 27.93' N lat to 147° 58.56' W long, 60° 28.84' N lat, were open.

Appendix C5.–Total set gillnet common property salmon harvest by period in the Eshamy District, 2012.

Period	Date	Emergency Orders	Hours	Permits	Landings	Chinook		Sockeye		Coho		Pink		Chum	
						Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
1 [a]	5/31–6/3	2-F-E-007-12	72	9	35	0	0	1,449	11,265	0	0	0	0	468	3,492
2 [a]	6/4–6/6	2-F-E-009-12	48	14	62	2	20	3,760	29,445	0	0	0	0	1,131	8,259
3 [a]	6/7–6/10	2-F-E-013-12	72	22	145	5	73	10,298	78,096	0	0	0	0	1,983	15,019
4 [a]	6/11–6/13	2-F-E-016-12	48	23	93	1	10	5,897	44,775	0	0	0	0	1,050	7,320
5 [a]	6/14–6/17	2-F-E-022-12	72	25	190	0	0	15,962	122,110	0	0	7	26	1,607	11,529
6 [a]	6/18–6/20	2-F-E-026-12	48	28	182	2	22	25,528	183,651	0	0	6	20	1,575	11,119
7 [a]	6/21–6/24	2-F-E-031-12	72	28	275	2	13	37,084	271,579	0	0	71	256	1,546	11,001
8 [a]	6/25–6/27	2-F-E-033-12	48	28	193	0	0	33,268	233,129	1	8	147	561	2,189	15,723
9 [b]	6/28 – 7/1	2-F-E-035-12	72	28	305	1	10	54,412	377,871	12	113	408	1,723	2,131	15,053
10 [c]	7/2 – 7/4	2-F-E-037-12	48	27	190	0	0	32,387	219,346	1	8	896	3,459	3,082	22,814
11 [b]	7/5 – 7/8	2-F-E-040-12	72	26	177	0	0	23,524	166,953	0	0	1,311	5,020	3,396	24,212
12 [c]	7/9 – 7/10	2-F-E-047-12	36	25	109	0	0	13,222	95,930	1	8	1,757	6,914	2,019	14,376
13 [a]	7/12 – 7/14	2-F-E-052-12	48	22	100	0	0	11,067	79,085	0	0	2,740	12,163	1,130	8,118
14 [a]	7/16 –7/17	2-F-E-054-12	24	20	64	0	0	7,401	50,190	0	0	1,642	7,096	633	4,326
15 [d]	7/19 – 7/21	2-F-E-056-12	48	14	81	0	0	7,503	51,865	0	0	1,347	5,564	147	1,032
16 [e]	7/23 – 7/25	2-F-E-060-12	48	10	54	0	0	5,094	36,472	8	36	396	1,700	110	840
17 [f]	7/26 – 7/28	2-F-E-065-12	48	8	39	0	0	2,298	15,499	1	7	885	3,728	88	613
18 [e]	7/30 – 8/01	2-F-E-067-12	48	6	31	0	0	3,632	22,869	0	0	914	3,173	39	267
19 [f]	8/2 – 8/4	2-F-E-069-12	48	1	3	0	0	92	580	0	0	27	89	2	12
20 [g]	8/4	2-F-E-071-12	12	0	0	0	0	0	0	0	0	0	0	0	0
21 [h]	8/5	2-F-E-071-12	12	0	0	0	0	0	0	0	0	0	0	0	0
22 [e]	8/6 –8/8	2-F-E-071-12	48	3	13	0	0	305	2,076	3	18	961	3,959	27	191
23 [f]	8/9 – 8/10	2-F-E-073-12	36	4	10	0	0	233	1,558	10	75	1,462	5,410	8	57

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Period	Date	Emergency Orders	Hours	Permits	Landings	Chinook Number	Chinook Pounds	Sockeye Number	Sockeye Pounds	Coho Number	Coho Pounds	Pink Number	Pink Pounds	Chum Number	Chum Pounds
24 [e]	8/13	2-F-E-075-12	12	4	6	1	3	53	352	3	22	462	1,996	3	19
25 [i]	8/14	2-F-E-076-12	14	6	8	0	0	104	664	40	262	1,555	5,824	4	31
26 [i]	8/20	2-F-E-101-12	14	1	1	0	0	39	255	13	81	247	865	0	0
27 [i]	8/27	2-F-E-103-12	12	1	1	0	0	20	130	4	22	70	286	0	0
28 [i]	9/3	2-F-E-105-12	12	0	0	0	0	0	0	0	0	0	0	0	0
29 [i]	9/6	2-F-E-107-12	12	0	0	0	0	0	0	0	0	0	0	0	0
30 [i]	9/10	2-F-E-109-12	12	0	0	0	0	0	0	0	0	0	0	0	0
31 [i]	9/13	2-F-E-111-12	12	0	0	0	0	0	0	0	0	0	0	0	0
32 [i]	9/17	2-F-E-113-12	12	0	0	0	0	0	0	0	0	0	0	0	0
Total			1,240	29	2,367	14	151	294,632	2,095,745	97	660	17,311	69,832	24,368	175,423
Average Weight							10.79		7.11		6.80		4.03		7.20

[a] Waters excluding the Alternating Gear Zone (AGZ) were open.

[b] Waters excluding the AGZ were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to set gillnet harvest only.

[c] Waters excluding the AGZ were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to drift gillnet harvest only.

[d] Waters within the Main Bay Subdistrict and MBH THA and SHA, excluding the AGZ, were open.

[e] Waters within the Main Bay Subdistrict and MBH THA and SHA, excluding the AGZ, were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to set gillnet harvest only.

[f] Waters within the Main Bay Subdistrict and MBH THA and SHA, excluding the AGZ, were open. Waters within the AGZ up to a line of buoys in front of the barrier net were open to drift gillnet harvest only.

[g] Waters within the MGH AGZ were open to set gillnet harvest.

[h] Waters within the MBH AGZ were open to drift gillnet harvest.

[i] Waters within Eshamy Bay, west of a line from 147° 57.78' W long, 60° 27.93' N lat to 147° 58.56' W long, 60° 28.84' N lat, were open.

Appendix C6.–Eshamy District commercial drift gillnet salmon harvest by statistical week, 2012.

Week	Dates	Hours	Permits		Chinook		Sockeye		Coho		Pink		Chum	
			Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
22	5/27–6/2	64	1	1	0	0	276	2186	0	0	0	0	166	1,145
23	6/3–6/9	120	46	125	6	67	8,194	61,106	0	0	0	0	8,859	65,323
24	6/10–6/16	120	168	877	21	185	77,236	532,698	0	0	17	61	50,130	338,622
25	6/17–6/23	120	288	1,689	9	89	239,637	1,643,140	3	20	50	193	61,128	430,517
26	6/24–6/30	120	222	1,536	5	58	298,480	1,974,701	11	91	2,345	8,986	54,761	388,677
27	7/1–7/7	120	198	1,229	5	33	236,186	1,560,503	55	262	24,635	91,347	62,252	445,090
28	7/8–7/14	92	113	485	2	13	81,253	524,819	22	159	30,965	121,193	15,605	109,820
29	7/15–7/21	72	50	162	0	0	20,200	129,717	3	24	11,013	42,232	1,236	8,771
30	7/22–7/28	96	37	91	2	24	7,753	52,901	14	94	4,790	19,970	450	3,303
31	7/29–8/4	108	27	85	1	8	14,923	94,987	4	25	5,622	19,183	131	900
32	8/5–8/11	96	15	28	1	3	3,311	20,502	26	193	6,532	27,355	39	273
33	8/12–8/18	26	12	15	0	0	170	1,116	54	368	2,982	10,714	17	100
34	8/19–8/25	14	0	0	0	0	0	0	0	0	0	0	0	0
35	8/26–9/1	12	0	0	0	0	0	0	0	0	0	0	0	0
36	9/2–9/8	24	0	0	0	0	0	0	0	0	0	0	0	0
37	9/9–9/15	24	0	0	0	0	0	0	0	0	0	0	0	0
38	9/16–9/22	12	0	0	0	0	0	0	0	0	0	0	0	0
Total		1,240	355	6,323	52	480	987,619	6,598,376	192	1,236	88,951	341,234	254,774	1,792,541
Average Weights						9.23		6.68		6.44		3.84		7.04

Appendix C7.–Eshamy District commercial set gillnet salmon harvest by statistical week, 2012.

Week	Dates	Hours	Permits		Chinook		Sockeye		Coho		Pink		Chum	
			Fished	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
22	5/27–6/2	64	9	31	0	0	1,393	10,820	0	0	0	0	458	3,407
23	6/3–6/9	120	22	197	6	64	13,556	103,812	0	0	0	0	3,110	23,252
24	6/10–6/16	120	26	270	2	39	19,797	149,730	0	0	7	26	2,623	18,608
25	6/17–6/23	120	28	456	4	35	61,293	446,336	0	0	72	258	3,050	21,610
26	6/24–6/30	120	28	500	1	10	88,312	617,459	13	121	537	2,220	4,355	31,019
27	7/1–7/7	120	27	377	0	0	57,448	397,031	1	8	2,104	8,156	6,241	45,312
28	7/8–7/14	92	26	225	0	0	26,059	188,047	1	8	4,623	19,482	3,470	24,827
29	7/15–7/21	72	22	145	0	0	14,904	102,055	0	0	2,989	12,660	780	5,358
30	7/22–7/28	96	10	93	0	0	7,392	51,971	9	43	1,281	5,428	198	1,453
31	7/29–8/4	108	7	34	0	0	3,724	23,449	0	0	941	3,262	41	279
32	8/5–8/11	96	5	23	0	0	538	3,634	13	93	2,423	9,369	35	248
33	8/12–8/18	26	6	14	1	3	157	1016	43	284	2017	7820	7	50
34	8/19–8/25	14	1	1	0	0	39	255	13	81	247	865	0	0
35	8/26–9/1	12	1	1	0	0	20	130	4	22	70	286	0	0
36	9/2–9/8	24	0	0	0	0	0	0	0	0	0	0	0	0
37	9/9–9/15	24	0	0	0	0	0	0	0	0	0	0	0	0
38	9/16–9/22	12	0	0	0	0	0	0	0	0	0	0	0	0
Total		1,240	29	2,367	14	151	294,632	2,095,745	97	660	17,311	69,832	24,368	175,423
Average Weights						10.79		7.11		6.80		4.03		7.20

Appendix C8.–Total commercial harvest in the Eshamy District, 1980–2012.

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
Drift Gillnet						
1980	0	684	25	3,225	130	4,064
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	1	924	8	162,541	3,427	166,901
1984	7	23,490	282	247,326	15,451	286,556
1985	1	667	0	24,899	1,021	26,588
1986	0	4	1	938	65	1,008
1987	2	642	3	3,225	7,060	10,932
1988	94	50,868	794	348,873	206,060	606,689
1989 [a]	0	0	0	0	0	0
1990	110	12,967	574	165,362	264,772	443,785
1991	107	296,234	468	44,516	202,183	543,508
1992	158	373,596	1,017	153,018	50,974	578,763
1993	8	80,807	673	45,974	27,045	154,507
1994	2	61,848	623	254,535	9,497	326,505
1995	21	29,851	1,468	60,712	13,284	105,336
1996	19	179,064	1,056	19,043	23,552	222,734
1997	17	475,498	426	146,324	34,768	657,033
1998	2	98,002	252	101,068	343	199,667
1999	30	86,032	2,036	127,082	13,120	228,300
2000	634	235,085	5,396	375,250	27,511	643,876
2001	47	499,972	10,423	367,588	21,316	899,346
2002	428	589,199	3,532	122,365	104,284	819,808
2003	19	575,608	1,764	61,565	16,057	655,013
2004	21	215,460	1,467	55,832	43,228	316,008
2005	15	79,227	1,636	110,499	3,493	194,870
2006	15	381,911	5,429	89,755	30,841	507,951
2007	27	538,183	2,556	42,822	81,410	664,998
2008	48	560,869	1,930	103,325	251,493	917,665
2009	67	539,293	1,695	77,539	286,361	904,955
2010	91	940,640	1,367	117,249	521,032	1,580,379
2011	129	901,279	6,159	78,762	95,991	1,082,320
10-Year Average	86	532,167	2,754	85,971	143,419	764,397
2012	52	987,678	192	88,951	254,774	1,331,647

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Year	Chinook	Sockeye	Coho	Pink	Chum	Total
Set Gillnet						
1980	0	2,000	38	2,371	134	4,543
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	1	1,328	10	167,942	4,463	173,744
1984	5	23,226	98	278,176	3,000	304,505
1985	1	3,439	74	33,284	1,295	38,093
1986	9	1,043	86	42,123	5,764	49,025
1987	31	5,387	336	86,677	45,099	137,530
1988	100	18,321	283	180,456	93,577	292,737
1989 [a]	0	0	0	0	0	0
1990	56	10,204	532	369,589	94,494	474,875
1991	76	184,028	504	20,075	49,394	254,077
1992	101	144,568	1,242	390,097	4,695	540,703
1993	55	101,717	832	84,568	20,369	207,541
1994	9	97,664	628	311,134	6,908	416,343
1995	19	30,814	695	28,118	6,621	66,267
1996	13	132,268	309	16,648	9,276	158,514
1997	12	196,005	163	76,610	8,475	281,265
1998	1	25,533	91	33,916	214	59,755
1999	131	74,378	1,092	43,443	11,101	130,145
2000	41	101,105	662	139,008	12,319	253,135
2001	25	176,060	1,006	127,737	7,057	311,885
2002	30	241,660	525	64,421	22,987	329,623
2003	0	215,733	663	28,537	6,265	251,198
2004	11	91,412	825	51,655	10,381	154,284
2005	0	109,532	882	126,135	3,452	240,001
2006	9	124,087	352	20,863	9,883	155,194
2007	18	196,537	365	13,796	24,651	235,367
2008	18	162,403	151	20,455	53,627	236,654
2009	47	152,642	49	4,251	50,748	207,737
2010	17	282,329	69	16,764	80,469	379,648
2011	37	312,659	612	17,629	25,350	356,287
10-Year Average	19	188,899	449	36,451	28,781	254,599
2012	14	294,632	97	17,311	24,368	336,422

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Year	Chinook	Sockeye	Coho	Pink	Chum	Total
Combined Gear						
1980	0	2,684	63	5,596	264	8,607
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	2	2,252	18	330,483	7,890	340,645
1984	12	46,716	380	525,502	18,451	591,061
1985	2	4,106	74	58,183	2,316	64,681
1986	9	1,047	87	43,061	5,829	50,033
1987	33	6,029	339	89,902	52,159	148,462
1988	194	69,189	1,077	529,329	299,637	899,426
1989 [a]	0	0	0	0	0	0
1990	166	23,171	1,106	534,951	359,266	918,660
1991	183	480,262	972	64,591	251,577	797,585
1992	259	518,164	2,259	543,115	55,669	1,119,466
1993	63	182,524	1,505	130,542	47,414	362,048
1994	11	159,512	1,251	565,669	16,405	742,848
1995	40	60,665	2,163	88,830	19,905	171,603
1996	32	311,332	1,365	35,691	32,828	381,248
1997	29	671,503	589	222,934	43,243	938,298
1998	3	123,535	343	134,984	557	259,422
1999	161	160,410	3,128	170,525	24,221	358,445
2000	675	336,190	6,058	514,258	39,830	897,011
2001	72	676,032	11,429	495,325	28,373	1,211,231
2002	458	830,859	4,057	186,786	127,271	1,149,431
2003	19	791,341	2,427	90,102	22,322	906,211
2004	32	306,872	2,292	107,487	53,609	470,292
2005	15	188,759	2,518	236,634	6,945	434,871
2006	24	505,998	5,781	110,618	40,724	663,145
2007	45	734,720	2,921	56,618	106,061	900,365
2008	66	723,272	2,081	123,780	305,120	1,154,319
2009	114	691,935	1,744	81,790	337,109	1,112,692
2010	108	1,222,969	1,436	134,013	601,501	1,960,027
2011	166	1,213,938	6,771	96,391	121,341	1,438,607
10-Year Average	105	721,066	3,203	122,422	172,200	1,018,996
2012	66	1,282,310	289	106,262	279,142	1,668,069

[a] Fishing was closed because of oil contamination on the beaches.

Appendix C9.–Estimated age and sex composition of sockeye salmon harvested in the Eshamy District commercial gillnet fishery, 2012.

Strata Combined:	05/28 - 09/19	Brood Year and Age Class [a]				
Sampling dates:	06/27 - 07/06	2008	2007		2006	
Sample size:	784	1.2	1.3	2.2	2.3	Total
Female	Percentage of sample	32.7	19.4	0.1	0.1	52.4
	Number in harvest	419,880	248,700	1,783	1,495	671,858
Male	Percentage of sample	29.7	17.6	0.1	0.0	47.4
	Number in harvest	380,381	225,527	1,495	0	607,403
Total	Percentage of sample	62.4	37.2	0.3	0.1	100.0
	Number in harvest	800,261	477,217	3,278	1,495	1,282,251
	Standard error	21,651	21,615	2,327	1,495	

[a] Fish with resorbed scales (31) have been removed.

Appendix C10.–Estimated age and sex composition of the sockeye salmon escapement through the Eshamy River weir, 2012.

Strata Combined:	07/10 - 08/28	Brood Year and Age Class [a]						
Sampling dates:	08/06 - 08/23	2008	2007		2006		2005	
Sample size:	1,098	1.1	1.2	2.1	1.3	2.2	2.3	Total
Female	Percentage of sample	0.1	19.2	0.2	0.9	29.1	0.3	50
	Number in escapement	24	4,622	48	219	7,014	72	11,999
Male	Percentage of sample	0.4	20.0	1.0	1.7	27.0	0.2	50
	Number in escapement	108	4,819	234	416	6,505	48	12,130
Total	Percentage of sample	0.5	39.1	1.2	2.6	56.0	0.5	100
	Number in escapement	132	9,441	282	635	13,519	120	24,129
	Standard error	54	351	79	117	355	54	

[a] Fish with resorbed scales have been removed; Strata 1 had 92, 2-73, 3-104.

APPENDIX D

Appendix D1.–Prince William Sound commercial common property purse seine harvest by day, 2012.

			Chinook		Sockeye		Coho		Pink		Chum	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
06/01	4	4	0	0	18	116	0	0	0	0	2,373	17,780
06/02	0	0	0	0	0	0	0	0	0	0	0	0
06/03	4	4	0	0	2,281	18,821	0	0	0	0	3,896	25,128
06/04	0	0	0	0	0	0	0	0	0	0	0	0
06/05	9	9	0	0	135	1,007	0	0	0	0	1,597	11,272
06/06	10	12	0	0	269	1,751	0	0	0	0	2,864	19,115
06/07	6	6	1	14	107	849	0	0	0	0	1,761	12,252
06/08	11	11	4	90	207	1,460	0	0	0	0	2,272	14,569
06/09 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
06/10	14	14	2	25	615	4,383	0	0	0	0	2,784	18,428
06/11	3	3	1	10	168	1,150	0	0	1	4	556	3,669
06/12	16	16	6	85	860	7,057	0	0	4	9	3,466	24,321
06/13	9	9	4	61	480	3,255	0	0	0	0	2,088	14,618
06/14	4	4	3	66	177	1,180	0	0	2	6	309	2,332
06/15	14	14	2	20	2,976	21,034	0	0	14	52	3,792	29,667
06/16	9	9	0	0	2,736	17,108	0	0	3	9	2,405	17,123
06/17	14	14	0	0	2,104	14,638	0	0	60	192	3,732	28,488
06/18	10	10	0	0	2,145	16,463	0	0	78	287	2,552	19,385
06/19	16	16	1	10	2,228	15,821	0	0	110	370	6,432	52,488
06/20	9	9	24	269	4,176	27,483	0	0	768	2,317	7,484	49,835
06/21	48	50	7	101	6,220	44,298	1	5	5,771	18,575	11,966	93,021
06/22	15	15	0	0	2,350	16,798	0	0	1,019	3,959	5,002	41,497
06/23	15	15	0	0	2,844	18,264	0	0	1,184	4,800	4,017	32,777
06/24	20	20	9	73	2,258	14,412	0	0	983	2,945	5,837	43,149
06/25	16	16	0	0	2,653	17,007	0	0	444	1,610	2,574	18,048
06/26	25	26	7	81	5,891	41,200	0	0	1,286	3,975	6,094	47,903
06/27	9	10	5	52	2,665	20,211	0	0	491	1,803	3,178	28,846
06/28	54	54	1	8	5,601	38,734	57	459	32,116	120,142	8,930	67,786
06/29	20	20	5	106	5,098	31,113	0	0	2,197	7,601	4,563	36,629
06/30	15	15	4	66	1,833	12,163	0	0	513	2,058	4,392	34,869
07/01	27	33	2	27	6,214	41,174	2	11	3,842	20,545	10,347	83,399
07/02	10	10	4	48	1,268	9,717	0	0	1,288	5,617	2,013	20,740
07/03	11	11	0	0	3,478	23,234	0	0	2,313	8,603	8,202	66,267
07/04	185	189	3	17	1,974	12,770	9	83	658,455	2,547,908	5,148	35,601
07/05	25	25	0	0	31,449	177,916	0	0	2,282	8,135	7,144	56,596
07/06	15	15	11	90	9,949	68,148	19	54	2,052	8,421	14,249	100,258
07/07	14	14	1	8	10,439	76,844	0	0	2,316	8,847	2,031	16,637
07/08	204	282	1	5	1,834	11,954	1	10	1,974,637	8,174,765	4,065	29,747
07/09 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
07/10	184	203	2	13	1,442	10,559	7	58	653,264	2,761,079	8,021	63,999
07/11	0	0	0	0	0	0	0	0	0	0	0	0
07/12	194	206	1	25	6,306	41,876	1	9	742,463	3,316,162	6,908	46,239
07/13	5	5	1	10	1,950	15,562	1	16	372	1,401	58	461
07/14	183	205	1	8	5,785	36,394	12	94	719,915	3,169,401	5,096	37,723
07/15	149	161	0	0	634	4,670	23	183	375,048	1,665,084	1,092	7,562
07/16	141	148	0	0	154	1,022	2	12	445,702	1,927,501	608	4,515
07/17	153	161	1	7	510	4,236	14	114	517,843	2,277,882	2,032	17,086
07/18	167	199	0	0	59	398	13	102	935,602	4,168,010	208	1,631
07/19	169	181	0	0	1,186	9,240	12	91	861,266	3,725,307	1,620	12,268
07/20	150	158	0	0	137	945	7	53	521,353	2,351,673	684	4,969
07/21	159	186	1	5	1,650	7,613	12	93	529,533	2,243,494	111,341	654,561
07/22	138	140	0	0	1,512	8,044	18	142	451,050	1,890,618	31,266	222,927
07/23	117	125	0	0	787	5,598	14	98	212,269	900,151	22,220	162,774
07/24	114	122	1	12	370	2,394	2	21	186,464	787,980	15,330	108,163
07/25	31	32	0	0	771	4,907	1	5	114,515	440,219	9,624	76,407

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			Chinook		Sockeye		Coho		Pink		Chum	
Date	Permits	Landings	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds	Number	Pounds
07/26	5	5	1	3	152	1,068	2	14	18,305	69,390	356	2,826
07/27 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
07/28	168	193	49	538	1,678	11,160	1,415	9,963	999,094	3,907,184	65,967	479,628
07/29	8	8	0	0	63	499	0	0	9,471	41,275	297	2,558
07/30	7	7	0	0	153	1,067	0	0	12,025	48,697	109	865
07/31	0	0	0	0	0	0	0	0	0	0	0	0
08/01	167	169	10	106	362	2,272	1,010	7,216	286,253	1,157,855	8,724	58,007
08/02	0	0	0	0	0	0	0	0	0	0	0	0
08/03	0	0	0	0	0	0	0	0	0	0	0	0
08/04	208	287	0	0	410	2,558	253	2,019	2,288,386	8,577,441	1,258	9,470
08/05	187	206	2	19	524	3,359	557	4,282	1,258,502	4,832,005	14,305	114,235
08/06	195	201	3	44	340	2,189	413	3,150	945,105	3,529,209	4,170	30,960
08/07	0	0	0	0	0	0	0	0	0	0	0	0
08/08	211	237	1	12	559	3,607	1,793	16,264	1,385,018	5,098,090	5,688	46,613
08/09	0	0	0	0	0	0	0	0	0	0	0	0
08/10	208	218	1	4	239	1,509	4,950	38,255	977,014	3,594,218	5,582	42,568
08/11	0	0	0	0	0	0	0	0	0	0	0	0
08/12	212	229	2	40	412	2,692	3,124	25,855	1,485,278	5,679,618	2,390	17,406
08/13	0	0	0	0	0	0	0	0	0	0	0	0
08/14	212	222	0	0	245	1,631	596	4,427	1,192,803	4,329,589	937	7,272
08/15	0	0	0	0	0	0	0	0	0	0	0	0
08/16	203	206	1	4	138	871	551	4,122	656,055	2,499,356	485	3,669
08/17	0	0	0	0	0	0	0	0	0	0	0	0
08/18	184	184	0	0	109	666	527	3,930	431,361	1,613,421	9,615	73,817
08/19	0	0	0	0	0	0	0	0	0	0	0	0
08/20	122	122	0	0	59	374	744	5,527	264,396	954,964	2,616	14,861
08/21	0	0	0	0	0	0	0	0	0	0	0	0
08/22	75	76	0	0	32	199	307	2,479	188,931	664,144	1,557	12,079
08/23	0	0	0	0	0	0	0	0	0	0	0	0
08/24	50	51	0	0	26	174	629	4,766	122,866	442,009	2,035	17,196
08/25	0	0	0	0	0	0	0	0	0	0	0	0
08/26	31	32	0	0	116	706	1,965	13,638	165,083	543,091	991	7,413
08/27	26	26	0	0	17	107	428	3,366	27,546	102,950	68	528
08/28	12	12	0	0	2	7	1,268	8,204	37,469	120,868	35	247
08/29	11	11	0	0	1	4	525	3,832	9,302	30,297	14	92
08/30	5	6	0	0	3	21	517	3,476	4,827	18,155	0	0
08/31 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
09/01 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
09/02 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
09/03 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
09/04	0	0	0	0	0	0	0	0	0	0	0	0
09/05	0	0	0	0	0	0	0	0	0	0	0	0
09/06	0	0	0	0	0	0	0	0	0	0	0	0
09/07	0	0	0	0	0	0	0	0	0	0	0	0
09/08 [a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]	[a]
09/09	0	0	0	0	0	0	0	0	0	0	0	0
09/10	0	0	0	0	0	0	0	0	0	0	0	0
09/11	0	0	0	0	0	0	0	0	0	0	0	0
09/12	0	0	0	0	0	0	0	0	0	0	0	0
09/13	0	0	0	0	0	0	0	0	0	0	0	0
09/14	0	0	0	0	0	0	0	0	0	0	0	0
Total	224	5,936	186	2,182	154,902	1,021,904	22,326	170,191	22,804,668	90,674,500	504,143	3,583,369
Average Weight				11.73		6.60		7.62		3.98		7.11

[a] Confidential.

Appendix D2.–Area E commercial salmon harvest by species, excluding Copper River and Bering River districts, 1971–2012.

Year [a]	Chinook	Sockeye	Coho	Pink	Chum	Total
1971	3,551	88,368	30,551	7,310,964	574,265	8,007,699
1972 [b]	547	197,526	1,634	54,783	45,370	299,860
1973	2,405	124,802	1,399	2,056,878	729,839	2,915,323
1974 [b]	1,590	129,366	801	448,773	88,544	669,074
1975	2,519	189,613	6,142	4,452,805	100,479	4,751,558
1976	1,044	112,809	6,171	3,018,991	370,478	3,509,493
1977	648	310,358	843	4,513,082	572,610	5,397,541
1978	1,042	222,083	1,495	2,913,721	485,147	3,623,488
1979	2,015	150,040	6,843	15,607,620	326,414	16,092,932
1980	189	189,816	2,952	14,157,057	482,016	14,832,030
1981	404	251,222	4,383	20,524,470	1,878,716	22,659,195
1982	255	1,055,099	24,362	20,396,222	1,335,368	22,811,306
1983	1,048	92,111	10,496	14,038,796	1,041,309	15,183,760
1984	489	311,955	12,420	22,086,806	1,201,842	23,613,512
1985	1,104	493,278	19,753	25,056,663	1,280,093	26,850,891
1986	1,330	488,715	12,277	11,407,271	1,683,049	13,592,642
1987	874	540,109	47,751	29,198,507	1,904,494	31,691,735
1988	1,037	183,572	75,709	11,817,323	1,832,114	13,909,755
1989	1,113	140,090	203,574	21,860,582	995,962	23,201,321
1990	447	58,497	234,525	44,163,479	959,838	45,416,786
1991	445	507,815	145,311	37,134,311	331,906	38,119,788
1992	1,475	780,932	202,311	8,635,448	328,568	9,948,734
1993	2,148	418,948	48,310	5,761,436	1,173,341	7,404,183
1994	1,376	334,183	121,518	36,874,188	1,039,095	38,370,360
1995	1,364	230,057	140,314	16,045,396	702,216	17,119,347
1996	700	606,525	172,448	26,036,570	2,077,996	28,894,239
1997	1,186	1,197,776	64,360	25,828,078	2,224,725	29,316,125
1998	2,013	365,591	74,105	28,664,281	1,266,887	30,372,877
1999	1,055	339,037	81,841	44,993,247	2,963,838	48,379,018
2000	1,133	548,790	353,013	38,875,724	5,158,397	44,937,057
2001	861	932,070	239,947	35,237,137	3,097,005	39,507,020
2002	958	1,013,396	37,586	18,947,254	6,341,864	26,341,058
2003	256	1,519,598	98,947	51,962,716	3,793,499	57,375,016
2004	864	831,356	56,430	23,526,306	1,998,511	26,413,467
2005	1,217	579,643	230,180	59,852,105	1,993,427	62,656,572
2006	1,118	990,880	388,722	21,691,138	2,164,338	25,236,196
2007	873	1,310,694	202,153	63,383,923	3,569,283	68,466,926
2008	962	979,077	307,837	42,352,208	5,074,804	48,714,888
2009	404	1,011,990	46,580	18,565,070	3,212,148	22,836,192
2010	576	1,401,815	42,500	71,288,429	4,307,249	77,040,569
2011	679	1,480,499	223,462	33,379,352	1,901,131	36,985,123
2012	1,400	1,834,441	34,036	27,586,346	3,807,552	33,263,775
10 year average	835	1,193,999	163,085	41,358,759	3,182,194	45,898,872

[a] Includes purse seine, drift gillnet, and set gillnet harvests. Also includes hatchery sales harvests, personal use, confiscated fish, donated and discarded fish, the surimi study fish, and special use educational permit harvests.

[b] General purse seine season closed.

Appendix D3.–Prince William Sound commercial common property pink salmon harvest for all gear types, by district, 1976–2012.

Year	Eastern [a]	Northern [a]	Coghill	Northwestern	Eshamy	Southwestern	Montague	Southeastern	Total
1976	1,380,943	384,267	217,696	207,190	0	589,458	0	82,366	2,861,920
1977	1,673,044	147,964	230,215	208,727	0	930,469	77,104	824,374	4,091,897
1978	1,516,076	933,013	13,059	0	0	0	0	216,696	2,678,844
1979	4,500,032	115,886	38,560	59,423	0	5,111,073	1,347,413	4,160,925	15,333,312
1980	3,140,134	1,271,177	134,876	306,109	0	7,507,776	950	1,271,389	13,632,411
1981	4,797,583	1,194,621	34,155	46,874	0	10,371,220	278,879	3,221,268	19,944,600
1982	2,959,601	2,331,903	1,000,524	520,972	3,997	10,801,771	6,444	747,116	18,372,328
1983	2,430,063	1,021,345	273,131	714,522	0	5,957,068	158,241	1,482,013	12,036,383
1984	4,525,029	2,194,904	996,483	1,412,822	544,082	10,197,349	11,587	1,245,042	21,127,298
1985	6,715,143	1,002,872	523,773	527,132	58,183	10,843,752	1,448,809	2,733,562	23,853,226
1986	2,488,540	944,871	214,593	285,184	43,061	6,374,535	0	147,268	10,498,052
1987	6,964,549	2,419,611	1,578,568	750,877	89,902	13,341,940	111,011	955,988	26,212,446
1988	481,324	286,743	2,932,072	7,738	529,329	5,411,424	0	1,776	9,650,406
1989	3,151,096	6,464,090	3,925,487	181,565	0 [b]	0 [b]	0 [b]	73,177	13,795,415
1990	7,970,364	5,482,585	2,692,788	891,444	534,951	17,811,479	10,658	12,325	35,406,594
1991	2,617,222	4,150,612	2,211,575	0	64,591	17,849,425	0	0	26,893,425
1992	489,228	1,142,061	363,887	0	543,115	3,039,775	0	0	5,578,066
1993	0	413,308	493,747	0	130,542	2,475,798	0	0	3,513,395
1994	11,554,320	7,171,038	3,597,094	0	565,669	3,408,093	0	0	26,296,214
1995	4,235,638	3,656,119	1,078,693	0	88,830	1,707,745	18,239	11,418	10,796,682
1996	6,059,063	5,039,988	1,543,869	0	35,691	5,046,919	0	0	17,725,530
1997 [c]	4,534,365	3,162,822	2,030,586	0	222,934	5,929,544	65,107	28,040	15,973,398
1998 [c]	2,231,061	5,035,736	3,228,761	0	134,984	8,425,853	430,525	350,081	19,837,001
1999	12,305,629	4,981,085	3,542,130	0	170,525	9,511,998	189,641	914,907	31,615,915
2000	9,819,466	4,093,620	3,359,542	17,223	514,258	9,308,399	87,634	549,763	27,749,905
2001	16,050,235	404,899	957,042	0	495,325	3,072,848	807,010	534,538	22,321,897
2002	355,964	594,245	1,277,637	0	186,786	5,710,938	32,857	1,075	8,159,502
2003	14,945,744	5,909,643	11,439,915	0	90,102	5,789,419	60,287	514,452	38,749,562
2004	9,512,987	45,355	43,690	0	107,487	1,628,219	102,352	260,992	11,701,082
2005	20,516,356	10,175,784	3,318,875	0	236,634	11,376,513	844,658	770,570	47,239,390
2006	5,712,890	1,331,740	1,373,036	0	110,618	3,269,037	144,417	21,805	11,963,543
2007	22,059,138	6,221,016	2,399,997	0	56,618	17,907,847	878,371	1,869,245	51,392,232
2008	11,008,956	8,589,490	10,053,149	0	1,154,319	8,134,915	1,460,258	0	40,401,087
2009	95,071	2,064,871	1,305,714	0	81,790	7,481,863	87,952	36,698	11,153,959
2010	18,798,887	18,459,350	16,016,511	0	134,734	17,843,669	15,985	19,293	71,288,429
2011	13,308,509	2,782,875	2,397,044	252,337	96,399	6,807,127	784,603	504,828	26,933,722
2012	10,601,626	3,677,080	3,430,252	87,010	106,262	5,722,240	200,600	225,255	24,050,325
10 year average	12,656,016	5,925,720	5,177,818	33,935	217,496	8,596,085	457,948	422,314	33,487,333

Note: Includes purse seine, drift gillnet, and set gillnet harvests from all Prince William Sound districts; Unakwik harvests are included in the Northern District. Does not include hatchery cost recovery, confiscated, or test fish harvests.

[a] Eastern and Northern District totals exclude discarded salmon.

[b] The Eshamy, Southwestern and Montague districts were closed in 1989 due to the Exxon Valdez oil spill.

[c] Eastern and Northern district totals exclude discarded salmon.

Appendix D4.–Aerial escapement indices for pink and chum salmon by district, Prince William Sound, 2012.

Pink Salmon

District	Escapement midpoint	Even cycle escapement goal range	1976–2012 even years mean index	Observed escapement index [a]	Deviation from midpoint
Eastern	390,000	250,000 – 580,000	440,656	301,709	-22.6%
Northern/Unakwik	160,000	140,000 – 210,000	169,418	106,568	-33.4%
Coghill	100,000	60,000 – 150,000	135,647	172,611	72.6%
Northwestern	100,000	70,000 – 140,000	110,748	117,795	17.8%
Eshamy	6,000	3,000 – 11,000	3,863	1,052	-82.5%
Southwestern	130,000	70,000 – 160,000	116,873	90,156	-30.6%
Montague	70,000	50,000 – 140,000	100,861	77,756	11.1%
Southeastern	200,000	150,000 – 310,000	280,884	258,047	29.0%
Total	1,156,000		1,358,950	1,125,693	-2.6%

Chum Salmon

District	Escapement range [b]	1976–2012 mean index	Observed escapement index [a]	Deviation from lower range
Eastern	50,000 and up	104,862	61,969	23.9%
Northern/Unakwik	20,000 and up	38,510	14,680	-26.6%
Coghill	8,000 and up	19,589	10,281	28.5%
Northwestern	5,000 and up	14,730	7,072	41.4%
Eshamy	None	83	0	NA
Southwestern [c]	None	3,284	930	NA
Montague [c]	None	5,249	2,077	NA
Southeastern	8,000 and up	31,348	20,467	155.8%
Total [d]	91,000 and up	209,039	114,468	25.8%

[a] Based on weekly aerial survey counts of 215 index spawning streams in Prince William Sound. This does not represent the total spawning escapement but rather a comparable annual index.

[b] Escapement goal changed to a lower bound sustainable escapement goal (SEG) with no upper end after the 2005 escapement goal review.

[c] Escapement goal removed in 2003 after review.

[d] Totals exclude districts without escapement goals (Eshamy, Southwestern, and Montague districts).

Appendix D5.–Prince William Sound pink salmon escapement indices by district, 1965–2012.

Year	Eastern	Northern	Coghill	Northwestern	Eshamy	Southwestern	Montague	Southeastern	Total
				Escapement indices					
1965	257,853	59,820	91,584	159,011	9,340	65,380	77,042	255,926	975,956
1966	544,980	288,710	135,440	79,960	11,720	115,570	42,220	204,570	1,423,170
1967	255,240	144,200	65,240	82,980	5,020	42,950	10,020	236,610	842,260
1968	364,930	151,120	108,020	117,430	10,770	172,770	52,350	179,120	1,156,510
1969	160,600	94,770	39,020	23,830	0	57,890	1,550	26,910	404,570
1970	387,090	125,360	95,170	82,660	7,610	66,790	73,880	140,660	979,220
1971	352,800	126,210	62,160	14,320	1,710	79,140	296,730	179,480	1,112,550
1972	344,470	83,900	30,960	39,020	1,100	29,530	33,140	79,060	641,180
1973	309,040	69,660	493,780	2,910	0	52,320	119,520	177,780	1,225,010
1974	256,880	206,750	56,940	163,930	6,240	160,980	11,750	94,650	958,120
1975	412,560	38,260	452,430	4,990	0	77,270	85,380	194,670	1,265,560
1976	402,792	106,248	53,908	41,886	0	32,639	7,852	66,953	712,278
1977	409,082	47,897	320,680	72,591	0	179,682	185,174	302,561	1,517,667
1978	298,037	88,816	67,084	65,514	0	110,363	30,761	94,811	755,386
1979	755,752	271,952	125,544	155,077	0	286,489	308,412	998,751	2,901,977
1980	300,871	105,551	148,066	85,663	0	81,095	100,985	272,811	1,095,042
1981	650,401	206,282	140,436	108,158	0	137,759	488,066	435,217	2,166,319
1982	508,204	198,838	309,202	121,085	0	134,827	114,421	462,541	1,849,118
1983	450,165	138,993	284,164	171,938	0	145,779	217,597	594,470	2,003,106
1984	1,143,775	439,886	365,226	412,278	0	304,859	169,612	734,202	3,569,838
1985	720,386	166,768	238,728	181,797	0	152,429	316,483	571,406	2,347,997
1986	384,382	131,956	109,798	78,027	3,513	69,388	45,492	163,378	985,934
1987	517,221	114,522	67,761	67,809	3,450	129,192	144,085	328,177	1,372,217
1988	394,111	140,981	42,985	69,627	0	118,359	67,928	137,173	971,164
1989	357,249	95,445	48,802	72,591	18,578	168,518	164,540	307,953	1,233,676
1990	428,723	110,638	45,558	94,359	17,274	136,721	106,603	296,029	1,235,905
1991	427,069	159,909	84,790	89,437	19,152	176,887	239,782	528,766	1,725,792
1992	194,962	72,323	23,122	42,805	2,716	64,652	47,029	94,928	542,537
1993	314,727	95,602	41,666	45,847	9,348	98,573	144,784	315,093	1,065,640
1994	613,866	178,151	65,648	141,290	11,799	143,479	58,820	196,228	1,409,281
1995	396,696	84,447	46,029	50,582	10,182	82,490	183,448	336,310	1,190,184
1996	584,236	218,022	104,781	86,709	3,000	63,337	92,966	330,285	1,483,336
1997	345,725	65,260	52,961	53,740	914	112,010	206,943	585,135	1,422,688
1998	377,700	213,288	85,968	97,485	4,644	280,335	161,275	199,410	1,420,105
1999	622,502	214,723	168,816	52,340	6,900	163,347	381,054	853,180	2,462,862
2000	554,984	168,247	223,646	66,078	4,286	131,648	227,881	282,258	1,659,028
2001	436,585	163,573	148,665	102,294	2,963	176,503	314,323	655,480	2,000,386
2002	226,068	138,204	54,882	50,981	1,397	35,554	71,461	364,630	943,177
2003	957,327	262,502	375,147	103,931	5,206	130,356	320,494	691,769	2,846,732
2004	724,663	163,858	79,010	51,306	2,300	108,192	183,891	687,903	2,001,123
2005	1,025,756	579,079	528,264	401,640	32,396	272,572	566,002	1,330,407	4,736,116
2006	248,592	211,603	145,511	127,836	11,247	118,205	149,798	178,009	1,190,802
2007	374,723	156,063	197,405	68,667	9,461	116,130	142,769	443,914	1,509,133
2008	193,844	141,396	145,177	141,787	579	70,291	56,999	112,347	862,419
2009	454,960	119,747	125,907	127,261	9,790	239,357	263,770	488,831	1,829,623
2010	490,952	287,570	335,108	211,709	9,585	126,489	144,821	404,862	2,011,096
2011	982,837	162,994	257,020	147,128	4,368	232,302	598,918	1,537,438	3,923,005
2012	301,709	106,568	172,611	117,795	1,052	90,156	77,756	258,047	1,125,693
				Even-year Average (1966–2012)					
	427,951	169,916	125,159	107,801	4,618	115,260	88,737	251,453	1,290,894
				Odd-year Average (1965–2011)					
	484,868	156,924	185,162	97,820	5,966	135,820	221,195	470,990	1,720,190

Note: Historical data revised in 1989. Coghill and Northwestern escapement numbers correspond to current district boundaries. Northern District totals include both Northern and Unakwik district counts combined.

Appendix D6.–Weekly aerial survey indices of pink salmon escapement by statistical area, Prince William Sound, 2012.

Survey location	Statistical area	Week ending dates [a] 06/23	06/30	07/07	07/14	07/21	07/28	08/04	08/11	08/18	08/25	09/01	09/08	09/15	Escapement index [b]
Orca Inlet	221-10				0	0	50		12,600	250	6,800	150			8,829
Simpson & Sheep Bay	221-20	0	0		50	750	9,250	42,500	25,140	79,200		71,937			81,592
Port Gravina	221-30	0	0		0	0	13,000		28,525	52,250		110,785			90,152
Port Fidalgo	221-40	0	0		0	1,000	12,000		9,100	87,500		50,300			67,066
Valdez Arm	221-50	0	0		0	450	5,000		14,835	59,000		45,130			54,070
Port Valdez	221-61														0
Eastern District		0	0		50	2,200	39,300	42,500	90,200	278,200	6,800	278,302			301,709
Columbia & Long Bay	222-10	0	0		0	2,000	600	5,000	23,750	25,250		3,100			19,480
Wells Bay & Unakwik Inlet	222-20	0	0		0	0	1,750	35,000	61,750	67,500		17,645			60,402
Eaglek Bay	222-30					0	100	7,750	22,500	23,250		7,400			26,663
Northern District		0	0		0	2,000	2,450	47,750	108,000	116,000		28,145			106,544
West Side Port Wells	223-10					0	150	33,250	33,075	45,980		15,350			43,816
Esther Passage	223-20					0	0	250	1,750	3,000		800			2,673
College Fiord	223-30					0	0	75,000	125,000	150,000		25,500			126,122
Coghill District						0	150	108,500	159,825	198,980		41,650			172,611
Passage Canal & Cochrane	224-10					2,100	390	37,500	55,500	55,000		200		2,630	57,880
Culross Passage	224-30					0	0	2,750	650	11,750				0	12,450
Port Nellie Juan	224-40					0	100	20,750	22,150	34,000				1,000	47,465
Northwestern District						2,100	490	61,000	78,300	100,750		200		3,630	117,795
Main Bay	225-20					0	0	0	0	0				0	0
Eshamy Bay	225-30					0	0	0	100	550				0	1,052
Eshamy District						0	0	0	100	550				0	1,052
Herring Bay	226-10					0	0	0	0					0	0
Chenega Is. & Dangerous Pass.	226-20					200		18,075	27,325	48,150				325	59,257
East Knight Is.	226-30					7,500		5,000	1,750	8,250				50	20,692
Bainbridge & Latouche	226-40					0		0	1,350	7,000				225	9,348
Port Bainbridge	226-50					0		1,000	0	75				0	859
Southwestern District						7,700	0	24,075	30,425	63,475				600	90,156
Montague Strait	227-10					0		19,750	45,000		54,030				20,337
Green Is.	227-20					0		16,250	11,725		21,620				57,419

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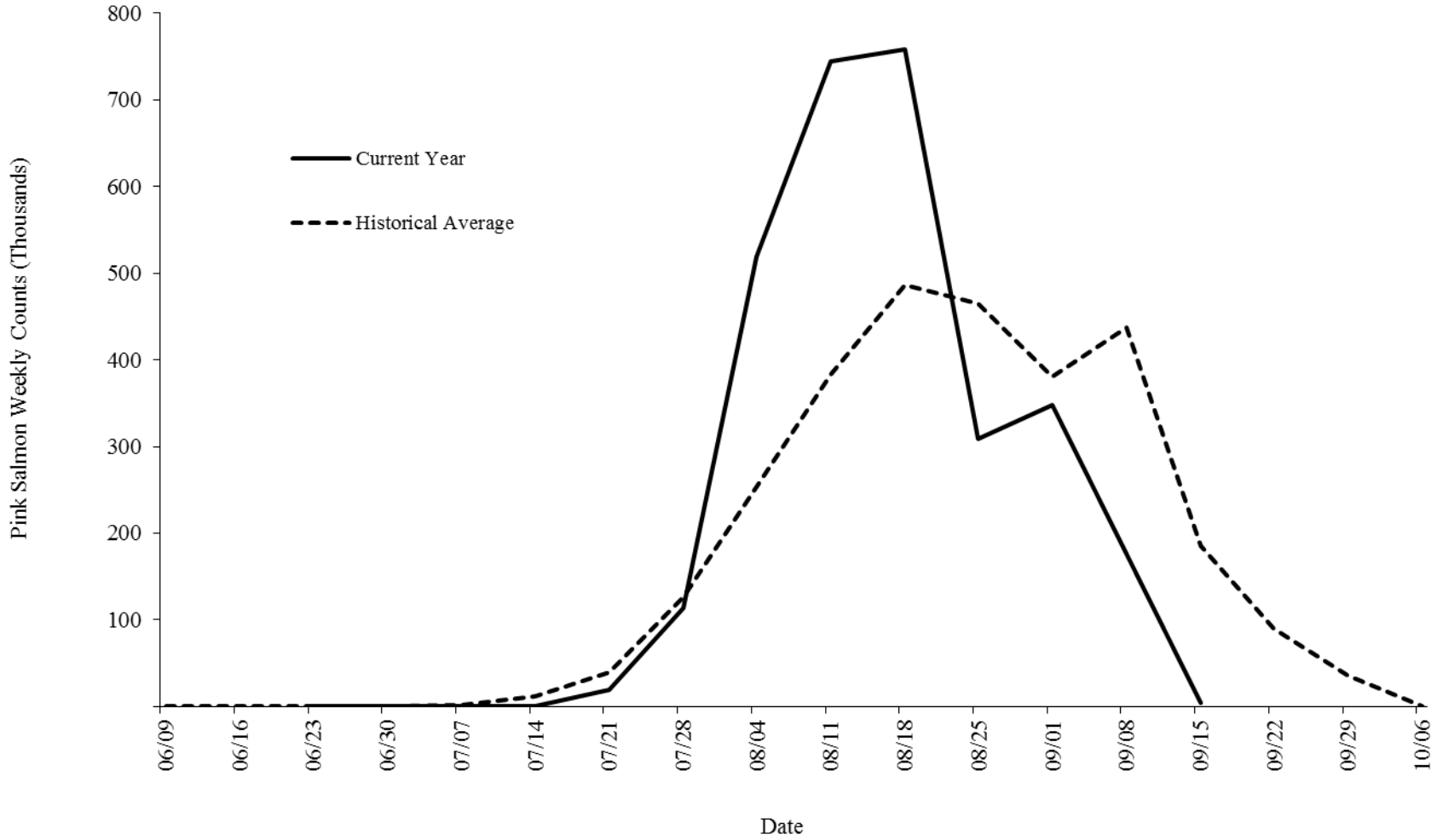
Survey location	Statistical area	Week ending dates [a] 06/23	06/30	07/07	07/14	07/21	07/28	08/04	08/11	08/18	08/25	09/01	09/08	09/15	Escapement index [b]
Montague District						0		36,000	56,725		75,650				77,756
Orca Is. & East Hawkins	228-10						0	6,000			250				1,393
Hawkins Cutoff	228-20	0	0			3,750	8,750	27,500	61,000		14,750				35,201
North Hawkins & Canoe Pass.	228-30					0	19,750	64,500			17,300				31,766
Double Bay	228-40						1,500	14,000			20,000				12,913
Johnstone Point	228-50						15,000	22,500	29,000		3,770				26,594
Port Etches	228-60	0	0			2,000	26,500	64,750	130,500		169,850				150,181
Southeastern District		0	0			5,750	71,500	199,250	220,500		225,920				258,047
Upper Unakwik Inlet	229-10					0	0	0	0	25		25			24
Unakwik District						0	0	0	0	25		25			24
TOTAL OF 9 DISTRICTS		0	0	0	50	19,750	113,890	519,075	744,075	757,980	308,370	348,322	0	4,230	1,125,692

[a] There are 215 streams in the Prince William Sound aerial survey program. All streams are flown at least once every 10 days as run timing dictates. During the peak of the run, streams may be flown more frequently for timely escapement data. When more than 1 survey per week was flown the weekly observation is the average of the 2 counts if observing conditions during both were good, or the maximum of the 2 counts if conditions during the minimum count were poor.

[b] The escapement index is based on a geometric method used since the inception of the systematic survey program in the early 1960s. In this method, aerial observers are assumed to count without error or bias. Linear interpolations between observations are used to estimate numbers of fish in the stream on days when no surveys are flown. All daily observations and interpolations are summed across the season. Because fish seen on day i+1 may include fish seen on day i, the sum of all daily observations and interpolations must be divided by some residence time for fish in the streams to account for duplicate observations. The residence time of 17.5 days has historically been used in this calculation and is from tagging studies completed by National Marine Fisheries Service on Olsen Creek in the early 1960s. Because observer bias does occur and because both observer bias and stream life are stream specific, escapement indices in this table may be used for interannual comparisons, but should not be interpreted as the true escapement.

Appendix D7.–Current year and historical weekly pink salmon escapement performance of index spawning streams, Prince William Sound, 2012.



Note: Historical data includes all even-year data for 1977–2012.

Appendix D8.–Prince William Sound total chum salmon harvests and escapement indices, including hatchery sales harvests and broodstock, 1983–2012.

	Chum salmon escapements [a]									Hatchery		Common property	Total
Year	Eastern	Northern	Coghill	Northwestern	Eshamy	Southwestern	Montague	Southeastern	Total	Sales	Brood	harvest [b]	run [c]
1983	109,414	78,610	55,127	26,017	0	2,000	0	14,407	285,575	0	44,000	1,030,546	1,360,121
1984	97,001	48,466	13,500	5,150	0	0	0	4,625	168,742	4,886	3,000	1,196,785	1,373,413
1985	37,310	24,561	14,514	10,256	0	500	20	2,450	89,611	3,840	0	1,302,090	1,395,541
1986	129,882	46,263	16,300	20,743	0	1,987	0	12,363	227,538	20,683	12,523	1,662,366	1,923,110
1987	189,855	27,134	22,472	25,571	0	1,150	300	46,420	312,902	2,549	15,574	1,902,063	2,233,088
1988	255,515	78,297	42,536	41,468	0	2,055	500	64,609	484,980	42,694	108,271	1,792,616	2,428,561
1989	115,385	44,823	22,434	25,252	300	10,891	0	20,574	239,659	129,551	74,513	862,551	1,306,274
1990	109,072	126,480	20,494	33,421	50	3,945	957	7,241	301,660	24,554	107,284	935,284	1,368,782
1991	66,483	18,153	7,055	9,034	0	2,075	925	9,203	112,928	13,471	114,814	318,435	559,648
1992	47,292	12,458	7,583	10,258	300	2,940	784	3,891	85,506	57,392	183,940	271,176	598,014
1993	49,904	19,265	7,404	17,692	0	1,250	30	19,173	114,718	475,148	140,330	706,196	1,436,392
1994	40,476	23,942	14,176	12,992	100	2,225	0	4,057	97,968	380,365	114,654	677,848	1,270,835
1995	75,655	28,899	11,596	4,883	0	2,250	1,000	23,200	147,483	231,539	172,542	486,510	1,038,074
1996	137,908	55,568	19,669	24,405	0	2,231	5,216	47,334	292,331	1,066,705	253,751	1,011,291	2,624,078
1997	93,146	19,429	3,101	8,387	0	800	4,000	43,274	172,137	811,179	178,933	1,413,546	2,575,795
1998	86,227	28,867	22,764	7,553	0	1,602	10,690	52,103	209,806	519,215	179,875	747,672	1,656,568
1999	242,713	36,886	5,057	4,544	0	2,393	8,725	36,181	336,499	777,180	207,073	2,186,658	3,507,410
2000	196,253	23,655	20,488	10,150	16	11,440	66,202	34,969	363,173	1,729,876	85,441	3,428,521	5,607,011
2001	198,683	75,473	13,388	6,373	700	5,187	10,408	37,526	347,738	936,028	171,046	2,153,920	3,608,732
2002	94,046	30,531	7,430	16,194	60	3,985	565	104,906	257,717	2,580,936	209,833	3,760,934	6,809,420
2003	198,921	44,565	19,729	12,736	110	12,373	9,015	116,131	413,580	1,540,227	200,933	3,981,763	6,136,503
2004	108,833	42,456	9,685	10,371	0	1,810	4,170	42,344	219,669	528,676	208,795	1,473,242	2,430,382
2005	113,135	30,657	11,979	12,696	500	1,951	0	25,547	196,465	535,773	280,881	1,461,146	2,474,265
2006	109,403	52,069	15,900	25,860	660	7,293	10,642	26,739	248,565	824,558	217,146	1,356,997	2,647,266
2007	123,814	49,740	14,052	10,778	69	4,095	16,648	60,464	279,660	1,099,730	173,452	2,479,210	4,032,052
2008	74,740	38,798	39,660	28,051	0	3,090	5,085	21,614	211,038	472,905	148,747	4,235,043	5,067,733
2009	84,636	18,578	5,208	14,146	69	9,917	17,733	86,528	236,815	465,427	156,835	2,612,300	3,471,377
2010	91,514	38,382	51,589	30,074	62	10,523	13,010	85,138	320,291	754,805	183,926	3,567,286	4,826,308
2011	196,933	52,474	16,368	11,447	0	801	5,499	91,218	374,740	471,951	183,765	1,438,293	2,468,749
2012	61,969	14,680	10,281	7,072	0	930	2,077	20,467	117,475	425,011	171,847	3,392,740	4,107,073
Avg.	117,871	41,005	18,051	16,119	100	3,790	6,473	38,823	242,232	565,744	139,414	1,683,211	2,627,424

[a] Coghill and Northwestern district escapement numbers correspond to current district boundaries. The Northern District totals includes Unakwik District counts.

[b] Includes the commercial common property harvest of both wild and hatchery stocks. Does not include hatchery sales harvests.

[c] Represents the sum of the common property harvest, hatchery sales and brood (including roe recovery), plus the escapement index. Does not account for wild stock escapement into non-index streams.

Appendix D9.–Weekly aerial survey indices of chum salmon escapement by statistical area, Prince William Sound, 2012.

Survey location	Statistical area	Week ending dates [a] 06/23	06/30	07/07	07/14	07/21	07/28	08/04	08/11	08/18	08/25	09/01	09/08	09/15	Escapement index [b]
Orca Inlet	221-10				0	0	275		250	0	0	0			407
Simpson & Sheep Bay	221-20	0	0		25	650	5,750	9,500	7,900	3,250		0			9,249
Port Gravina	221-30	0	50		1,100	3,000	21,000		13,700	14,500		2,000			25,569
Port Fidalgo	221-40	0	0		0	1,000	6,750		4,252	9,500		11,300			16,410
Valdez Arm	221-50	0	0		175	1,300	8,250		1,130	8,250		200			10,333
Port Valdez	221-61														
Eastern District		0	50		1,300	5,950	42,025	9,500	27,232	35,500	0	13,500			61,969
Columbia & Long Bay	222-10	0	0		0	550	400	5,000	2,000	2,250		0			4,708
Wells Bay & Unakwik Inlet	222-20	0	0		50	3,050	1,285	10,750	4,400	4,700		0			9,716
Eaglek Bay	222-30					0	210	350	0	0		0			256
Northern District		0	0		50	3,600	1,895	16,100	6,400	6,950		0			14,680
West Side Port Wells	223-10					2,000	1,060	9,750	2,100	1,850		600			8,031
Esther Passage	223-20					0	0	0	0	0		0			0
College Fiord	223-30					0	0	0	0	0		4,500			2,250
Coghill District						2,000	1,060	9,750	2,100	1,850		5,100			10,281
Passage Canal & Cochrane	224-10					400	1,035	8,250	500	750		0		0	6,033
Culross Passage	224-30					0	0	0	0	0				0	0
Port Nellie Juan	224-40					0	320	1,250	0	0				0	1,038
Northwestern District						400	1,355	9,500	500	750		0		0	7,072
Main Bay	225-20					0	0	0	0	0				0	0
Eshamy Bay	225-30					0	0	0	0	0				0	0
Eshamy District						0	0	0	0	0				0	0
Herring Bay	226-10					0	0	0	0					0	0
Chenega Is. & Dangerous Pass.	226-20					0		1,500	0	0				0	930
East Knight Is.	226-30					0		0	0	0				0	0
Bainbridge & Latouche	226-40					0		0	0	0				0	0
Port Bainbridge	226-50					0		0	0	0				0	0
Southwestern District						0	0	1,500	0	0				0	930
Montague Strait	227-10					500		1,500	0		1,150				366
Green Is.	227-20					0		0	0		50				1,710

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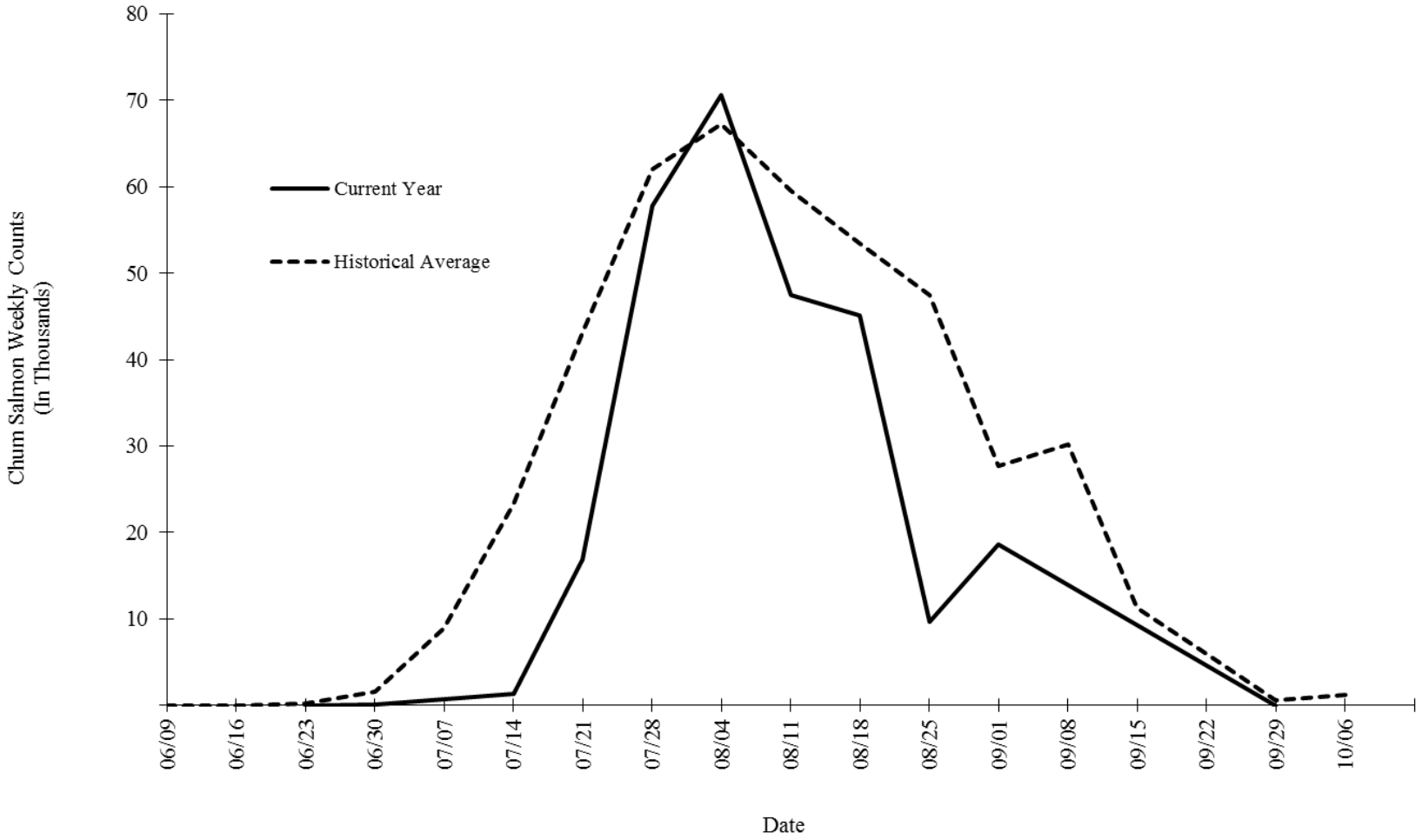
Survey location	Statistical area	Week ending dates [a] 06/23	06/30	07/07	07/14	07/21	07/28	08/04	08/11	08/18	08/25	09/01	09/08	09/15	Escapement index [b]
Montague District						500		1,500	0		1,200				2,077
Orca Is. & East Hawkins	228-10						0	0			0				0
Hawkins Cutoff	228-20	0	0			100	1,000	2,250	750		0				1,498
North Hawkins & Canoe Pass.	228-30					0	500	0			0				174
Double Bay	228-40						100	750			200				652
Johnstone Point	228-50						2,500	1,000	0		130				2,036
Port Etches	228-60	0	0			4,300	7,400	18,750	10,500		8,100				16,107
Southeastern District		0	0			4,400	11,500	22,750	11,250		8,430				20,467
Upper Unakwik Inlet	229-10					0	0	0	0	0		0			0
Unakwik District						0	0	0	0	0		0			0
TOTAL OF 9 DISTRICTS		0	50	0	1,350	16,850	57,835	70,600	47,482	45,050	9,630	18,600	0	0	114,468

[a] There are 215 streams in the Prince William Sound aerial survey program. All streams are flown at least once every 10 days as run timing dictates. During the peak of the run, streams may be flown more frequently for timely escapement data. When more than 1 survey per week was flown the weekly observation is the average of the 2 counts if observing conditions during both were good, or the maximum of the 2 counts if conditions during the minimum count were poor.

[b] The escapement index is based on a geometric method used since the inception of the systematic survey program in the early 1960s. In this method, aerial observers are assumed to count without error or bias. Linear interpolations between observations are used to estimate numbers of fish in the stream on days when no surveys are flown. All daily observations and interpolations are summed across the season. Because fish seen on day i+1 may include fish seen on day i, the sum of all daily observations and interpolations must be divided by some residence time for fish in the streams to account for duplicate observations. The residence time of 17.5 days has historically been used in this calculation and is from tagging studies completed by National Marine Fisheries Service on Olsen Creek in the early 1960s. Because observer bias does occur and because both observer bias and stream life are stream specific, escapement indices in this table may be used for interannual comparisons, but should not be interpreted as the true escapement.

Appendix D10.–Current year and historical weekly chum salmon escapement performance of index spawning streams, Prince William Sound, 2012.



Appendix D11.–Current year and historical weekly chum salmon escapement performance of index spawning streams, Prince William Sound, 2012.

System name	Stream number	Week ending dates								
		07/20	07/27	08/03	08/10	08/17	08/24	08/31	09/07	09/14
Keta Creek	83	300								
Billy's Creek	218					100				
Wells River	234									
Coghill River	322	5,000								
Red Creek	300		150			25				
Park Creek	458									
Cochrane Creek	461									
Shrode Creek	476	400		75		300	1,000			100
Eshamy River	511				25					
Gumboot Creek	507									
Bainbridge Creek	630	500			2,500					
Brizgaloff Creek	623									25
Jackpot Creek	608			1,500	3,500		1,500			75
Jackson Creek	613									
Shelter Bay	662									
Cowpen Creek	242	75								
Miners River	244	1,250	800	1,000		625				
Total		7,525	950	2,575	6,025	1,050	2,500	0	0	200

Note: Counts are obtained in conjunction with the pink and chum salmon aerial survey program. Many of these sockeye salmon systems are difficult to survey by air, thus counts may not represent total live abundance at a particular time.

Appendix D12.–Summary of Prince William Sound commercial purse seine salmon fishery period dates, duration, and dates of news releases issued by district, 2012.

Eastern (221)		Northern (222)		Coghill (223)		Northwestern (224)		Southwestern (226)		Montague (227)		Southeastern (228)		Unakwik (229)[a]		NR [a]
Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	dates
								06/01–06/03	60							05/30
								06/04–06/06	60							06/02
								06/07–06/10	84							06/06
								06/11–06/13	60							06/09
								06/14–06/17	84					06/14–06/15	24	06/13
								06/18–06/20	60					06/18–06/19	24	06/16
06/21	12							06/21–06/24	84			06/21	12	06/21–06/22	24	06/20
								06/25–06/27	60					06/25–06/26	24	06/23
06/28	12							06/28–07/01	84			06/28	12	06/28–06/29	24	06/27
								07/02–07/04	60					07/02–07/03	24	06/30
07/04	14															07/02
				07/05–07/08	72			07/05–07/08	84					07/05–07/06	24	07/04
07/08	14															07/07
								07/09–07/11	60					07/09–07/10	36	07/07
07/10	14															07/09
07/12	14			07/12–07/15	84			07/12–07/15	84					07/12–07/14	48	07/11
07/14	14															07/13
07/15	14															07/14
07/16	14							07/16–07/18	60					07/16–07/17	36	07/14, 07/15
07/17	14															07/16
07/18	14															07/17
07/19	14							07/19–07/22	84							07/18
								07/19	14							07/18
07/20	14							07/20	14							07/18, 07/19
07/21	14			07/21–07/22	36			07/21	14							07/18, 07/20
07/22	14	07/22	14					07/22	14							07/21
07/23	14			07/23–07/24	36			07/23	14							07/21, 07/22
07/24	14			07/24–07/26	48			07/24	14							07/21, 07/23
								07/25	14							07/21
				07/26–07/27	36			07/26–07/29	84							07/25
07/28	14			07/28–07/30	60							07/28	14			07/27
								07/30–08/01	60							07/28
08/01	14	08/01	14	08/01	14							08/01	14			07/30

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Eastern (221)		Northern (222)		Coghill (223)		Northwestern (224)		Southwestern (226)		Montague (227)		Southeastern (228)		Unakwik (229)		NR [a]
Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	Dates	Hours	dates
08/04	14	08/04	14	08/04	14	08/04	14	08/04	14	08/04	14	08/04	14			08/03
08/05	14	08/05	14	08/05	14	08/05	14	08/05	14	08/05	14	08/05	14			08/03, 08/04
08/06	14	08/06	14	08/06	14	08/06	14	08/06	14	08/06	14	08/06	14			08/03, 08/04
08/08	14	08/08	14	08/08	14	08/08	14	08/08	14	08/08	14	08/08	14			08/07
08/10	14	08/10	14	08/10	14	08/10	14	08/10	14	08/10	14	08/10	14			08/09
08/12	14	08/12	14	08/12	14	08/12	14	08/12	14	08/12	14	08/12	14			08/11
08/14	14	08/14	14	08/14	14	08/14	14	08/14	14	08/14	14	08/14	14			08/13
08/16	14	08/16	14	08/16	14	08/16	14	08/16	14	08/16	14	08/16	14			08/15
08/18	14	08/18	14	08/18	14	08/18	14	08/18	14	08/18	14	08/18	14			08/17
08/20	14	08/20	14	08/20	14	08/20	14	08/20	14	08/20	14	08/20	14			08/17
08/22	12	08/22	12	08/22	12	08/22	12	08/22	12	08/22	12	08/22	12			08/21
08/24	12	08/24	12	08/24	12	08/24	12	08/24	12	08/24	12	08/24	12			08/23
08/26	12	08/26	12	08/26	12	08/26	12	08/26	12	08/26	12	08/26	12			08/25
08/27	12	08/27	12	08/27	12	08/27	12	08/27	12	08/27	12	08/27	12			08/25
08/28	12	08/28	12	08/28	12	08/28	12	08/28	12	08/28	12	08/28	12			08/25
08/29	12	08/29	12	08/29	12	08/29	12	08/29	12	08/29	12	08/29	12			08/25
08/30	12	08/30	12	08/30	12	08/30	12	08/30	12	08/30	12	08/30	12			08/29
08/31	12	08/31	12	08/31	12	08/31	12	08/31	12	08/31	12	08/31	12			08/29
09/01	12	09/01	12	09/01	12	09/01	12	09/01	12	09/01	12	09/01	12			08/31
09/02	12	09/02	12	09/02	12	09/02	12	09/02	12	09/02	12	09/02	12			08/31
09/03	12	09/03	12	09/03	12	09/03	12	09/03	12	09/03	12	09/03	12			08/31
09/04	12	09/04	12	09/04	12	09/04	12	09/04	12	09/04	12	09/04	12			08/31, 09/03
09/05	12	09/05	12	09/05	12	09/05	12	09/05	12	09/05	12	09/05	12			08/31, 09/03
09/06	12	09/06	12			09/06	12	09/06	12	09/06	12	09/06	12			09/05
09/07	12	09/07	12			09/07	12	09/07	12	09/07	12	09/07	12			09/05
09/08	12	09/08	12			09/08	12	09/08	12	09/08	12	09/08	12			09/07
09/09	12	09/09	12			09/09	12	09/09	12	09/09	12	09/09	12			09/07
09/10	12	09/10	12			09/10	12	09/10	12	09/10	12	09/10	12			09/07
09/11	12	09/11	12			09/11	12	09/11	12	09/11	12	09/11	12			09/07
09/12	12	09/12	12			09/12	12	09/12	12	09/12	12	09/12	12			09/07
09/13–09/19	156	09/13–09/19	156			09/13–09/19	156	09/13–09/19	156	09/13–09/19	156	09/13–09/19	156			09/12

Source: Additional information relevant to each fishing period, including area opened to fishing, may be found on the applicable news release (NR) available through ADF&G's Commercial Fishing News Release System at http://www.adfg.alaska.gov/index.cfm?adfg=cfnews.main

Note: Required parameters for searching the ADF&G Commercial Fishing News Release System include: Effective Year = 2011; Species Group = Salmon; Management Area = Prince William Sound.

[a] Queries made through the ADF&G Commercial Fishing News Release System will provide results sorted by Publication Date, with the corresponding date listed column "NR date."

APPENDIX E

Appendix E1.–Summary of salmon runs to Prince William Sound and Copper River hatcheries, 2012.

Sockeye salmon [a]

Hatchery	BY 2007 release	BY 2008 release	2012 forecast run [b]	Estimated CPF contribution	Estimated sales harvest contribution [c]	Broodstock & unharvested contribution [d]	Estimated total run [e]	Eggs collected
Gulkana Hatchery I	20,640,000	20,660,000	314,872	383,341	0	65,348	448,689	33,100,000
Gulkana Hatchery II	1,340,000	1,340,000	20,100		0			1,750,000
Main Bay Hatchery	9,087,000	8,492,000	1,200,000	1,271,814	0 [f]	19,173	1,290,987	12,900,000
Total sockeye salmon	31,067,000	30,492,000	1,534,972	1,655,155	0	84,521	1,739,676	47,750,000

Coho salmon [a, g]

Hatchery or release site	BY 2009 release	2012 forecast run [b]	Estimated CPF contribution [g]	Estimated sales harvest contribution [c]	Broodstock & unharvested contribution [d]	Estimated total run [e]	Eggs collected
Solomon Gulch	2,111,389	128,631	20,389	455	2,647	23,491	2,033,908
Wally Noerenberg	3,480,000	263,800	11,506	0	558	12,064	981,000
Total coho salmon	5,591,389	392,431	31,895	455	3,205	35,555	3,014,908

Pink salmon [a]

Hatchery	BY 2010 release	2012 forecast run [b]	Estimated CPF contribution	Estimated sales harvest contribution [c]	Broodstock & unharvested contribution [d]	Estimated total run [e]	Eggs collected
Solomon Gulch	222,603,439	13,545,393	9,412,990	1,009,830	294,138	10,716,958	230,138,673
Armin F. Koernig	148,000,000	7,600,000	3,384,891	490,078	192,031	4,067,000	162,000,000
Wally Noerenberg	136,000,000	6,300,000	4,307,313	1,224,966	164,156	5,696,435	148,000,000
Cannery Creek	135,000,000	5,700,000	3,732,355	35,028	152,849	3,920,232	102,000,000
Total pink salmon	641,603,439	33,145,393	20,837,549	2,759,902	803,174	24,400,625	642,138,673

Chum salmon [a]

Hatchery or release site	BY 2006 release	BY 2007 release	BY 2008 release	BY 2009 release	2012 forecast run [b]	Estimated CPF contribution	Estimated sales harvest contribution [c]	Broodstock & unharvested contribution [d]	Estimated total run [e]	Eggs collected
Sawmill Bay	– [h]	32,100,000	15,100,000	12,900,000	210,000	324,448	12,067	0	336,515	0
Wally Noerenberg	48,200,000	76,900,000	71,900,000	76,500,000	1,040,000	2,451,696	269,982	174,847	2,896,525	180,000,000
Port Chalmers	– [h]	38,900,000	38,100,000	40,800,000	504,000	351,470	0	0	351,470	0
Mixed [h]	80,900,000	0	0	0	0	7,575	0	0	7,575	0
Total chum salmon	129,100,000	147,900,000	125,100,000	130,200,000	1,754,000 0	3,135,189	282,049 0	174,847 0	3,592,085 0	180,000,000
Total-all salmon						25,659,788	3,042,406	1,065,747	29,767,941	872,903,581

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[a] Contribution estimates from Prince William Sound Aquaculture Corporation (PWSAC) and Valdez Fisheries Development Association (VFDA) hatcheries are based on analysis of otolith recoveries, historical data, and location of harvest as reported on fish tickets.
[b] Gulkana Hatchery run forecasts were completed by ADF&G; all other hatchery run forecasts were completed by PWSAC and VFDA.
[c] Includes whole fish purse seine and raceway harvest, but does not include carcass sales from viable broodstock.
[d] Includes viable broodstock, holding mortalities, watershed spawners, donated and discarded fish, and fish remaining in the bay after all harvests were complete.
[e] Does not include confiscated salmon.
[f] Includes Solf Lake marked sockeye salmon.
[g] Includes remote releases at Chenega, Cordova, and Whittier.
[h] The brood year 2006 thermal mark 1,2,3H fed chum salmon fry were released in multiple locations as follows: 23.5 million fry at Wally Noerenberg Hatchery, 15.5 million fry at Sawmill Bay remote release site, and 40.1 million fry at Port Chalmers remote release site.

Appendix E2.–Sales harvests of salmon by species from private nonprofit hatcheries in Prince William Sound as reported on fish tickets, 1977–2012.

Year	Hatchery [a]	Sockeye sales [b]	Sockeye brood sales [c]	Coho sales [b]	Coho brood sales [c]	Pink sales [b]	Pink brood sales [c]	Chum sales [b]	Chum brood sales [c]	Total
1977	AFK					15,545				15,545
1978	AFK					114,188				114,188
1979	AFK					223,748				223,748
1980	AFK, N					346,728		6		346,734
1981	AFK					707,037		118		707,155
1982	AFK					1,354,732				1,354,732
1983	AFK					616,963				616,963
1984	AFK, SGH					415,393		4,886		420,279
1985	AFK, SGH					1,209,960		3,840		1,213,800
1986	AFK, SGH			2,156		905,464		20,683		928,303
1987 [d]	AFK, SGH, E, CCH			7,015		2,691,190		2,549		2,700,754
1988	AFK, SGH, E			6,110		1,632,701		42,694		1,681,505
1989 [e]	AFK, SGH, WNH, CCH, MBH			52,307		7,812,373		131,362		7,996,042
1990	AFK, SGH, WNH, CCH			14,199		8,732,658		24,554		8,771,411
1991	AFK, SGH, WNH, CCH			52,625		5,955,561		13,471		6,021,657
1992	AFK, SGH, WNH, CCH, MBH	163,086		73,530		3,049,394		57,392		3,343,402
1993	AFK, SGH, WNH, CCH, MBH	113,738		3,259		2,212,403		475,148		2,804,548
1994	AFK, SGH, WNH, CCH, MBH	79,541		22,454		10,521,439		380,365		11,003,799
1995	AFK, SGH, WNH, CCH, MBH	63,326		13,248		5,100,819		231,539		5,408,932
1996 [f]	AFK, SGH, WNH, CCH, MBH	86,911		38,945		8,291,205		1,066,683		9,483,744
1997	AFK, SGH, WNH, CCH, MBH, GH	266,335		2,933		9,854,675		811,179		10,935,122
1998	AFK, SGH, WNH, CCH, MBH, GH	148,288		20,199		8,825,226		519,215		9,512,928
1999	AFK, SGH, WNH, CCH, GH	28,769		0		13,130,211		777,180		13,936,168
2000	AFK, SGH, WNH, CCH, MBH	218		1		11,125,819		1,729,876		12,855,914
2001	AFK, SGH, WNH, CCH, MBH	43,073		21,781		12,914,314		936,028		13,915,196
2002	AFK, SGH, WNH, CCH, MBH	93,722		1		10,787,752		2,580,926		13,462,402
2003	AFK, SGH, WNH, CCH, MBH	366,770		0	19,782	12,426,375	730,599	1,540,227	22,792	15,083,753
2004	AFK, SGH, WNH, CCH, MBH	279,902		0		11,825,224		528,676		12,633,802
2005	AFK, SGH, WNH, CCH, MBH	207,605		27,417	60,676	12,529,283	1,246,992	535,783	98,695	14,607,756

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Year	Hatchery [a]	Sockeye sales [b]	Sockeye brood sales [c]	Coho sales [b]	Coho brood sales [c]	Pink sales [b]	Pink brood sales [c]	Chum sales [b]	Chum brood sales [c]	Total
2006 [g]	AFK, SGH, WNH, CCH, MBH	348,156		17,198	5,090	9,727,499	239,905	824,558	22,105	10,917,531
2007	AFK, SGH, WNH, CCH, MBH	321,330	0	11,954	17,690	11,990,924	912,585	1,099,730	173,452	14,354,213
2008	AFK, SGH, WNH, CCH	0	0	267	22,356	6,563,243	1,076,140	478,690	162,643	8,303,339
2009	AFK, SGH, WNH, CCH, MBH	133,873	0	17,424	0	6,760,475	1,107,515	608,541	143,114	8,770,942
2010	AFK, SGH, WNH, CCH	0	0	43,878	754	4,739,891	725,805	594,044	155,912	6,260,284
2011	AFK, SGH, WNH, CCH	0	0	41,497	2,511	5,403,677	943,487	330,064	148,255	6,869,491
10-year average		175,136	0	15,964	16,107	9,275,434	872,879	912,124	115,871	11,126,351
2012	AFK, SGH, WNH, CCH, MBH	1,198	0	1	2,372	2,630,402	901,456	171,612	269,329	3,976,370

[a] Hatchery abbreviations are as follows:

N = NERKA Inc.

SGH = Solomon Gulch Hatchery (VFDA)

AFK = Armin F. Koernig Hatchery (PWSAC) (formerly Port San Juan Hatchery)

CCH = Cannery Creek Hatchery (PWSAC) (formerly operated by ADF&G)

E = Esther Hatchery (PWSAC) (renamed WNH in 1989)

WNH = Wally Noerenberg Hatchery (PWSAC) (formerly Esther Hatchery)

MBH = Main Bay Hatchery (PWSAC) (formerly operated by ADF&G)

GH = Gulkana Hatchery (Crosswind Lake Weir) (formerly operated by ADF&G)

[b] Salmon harvested to generate revenues to offset operating costs. Does not include broodstock sales.

[c] Includes all reported broodstock sales (carcasses from egg takes and roe extraction).

[d] PWSAC administered a sales harvest at the state owned Cannery Creek hatchery. The majority of coho salmon sold were carcasses and surplus brood fish from the Solomon Gulch hatchery.

[e] PWSAC administered a sales harvest at the state owned Main Bay Hatchery to harvest surplus chum salmon from the closure of the common property fishery.

[f] Includes 269,848 pink salmon Peter Pan Seafoods bought from VFDA and then discarded after roe extraction. Also includes approximately 250,000 chum processed by PWSAC for meal production and roe extraction.

[g] Includes 1,227 pink salmon incidentally harvested in the MBH cost recovery fishery.

Appendix E3.–Historical harvest contributions, thermally marked otolith releases, and total returns of pink salmon to Prince William Sound hatcheries, return years, 1996–2011.

Brood year	Return year	Fry release	Hatchery contribution to broodstock esc. [a]	Total sales harvest	Hatchery contribution to sales harvest	Hatchery contribution to the CCPF [b]	Total hatchery return	Estimated marine survival
Solomon Gulch Hatchery								
1996	1998	188,862,094	295,438	3,428,348	3,076,945	1,226,679	4,599,062	2.44%
1997	1999	195,162,163	954,305	4,379,659	4,354,601	9,465,378	14,774,284	7.57%
1998	2000	213,906,642	520,934	4,033,635	3,983,473	7,635,581	12,139,988	5.68%
1999	2001	195,763,690	524,857	3,970,310	3,932,080	11,458,958	15,915,895	8.13%
2000	2002	203,897,201	420,062	4,430,173	4,368,519	360,850	5,149,431	2.53%
2001	2003	202,573,328	1,636,618	4,188,294	4,184,463	11,871,024	17,692,105	8.73%
2002	2004	206,397,607	300,362	3,782,011	3,597,708	7,262,379	11,160,448	5.41%
2003	2005	215,000,000	585,196	3,534,939	3,534,939	13,713,349	17,833,484	8.29%
2004	2006	222,218,569	481,121	3,855,271	3,762,010	4,840,097	9,083,228	4.09%
2005	2007	216,921,213	294,054	3,967,798	3,967,798	19,586,090	23,847,942	10.99%
2006	2008	220,408,302	283,434	4,267,840	4,226,915	10,946,866	15,457,215	7.01%
2007	2009	199,639,850	478,100	742,660	714,431	29,942	1,222,473	0.61%
2008	2010	226,202,628	225,834	2,163,386	2,087,212	16,084,863	18,397,909	8.13%
2009	2011	223,083,753	306,629	2,113,247	1,997,515	11,302,997	13,607,141	6.10%
2010	2012	222,603,439	329,784	1,373,104	974,184	9,391,677	10,695,645	4.80%
2011	2013	214,526,737						
Armin F. Koernig Hatchery								
1996	1998	52,384,532	643,153	1,634,956	1,582,038	5,037,454	7,262,645	13.86%
1997	1999	105,974,235	1,352,746	2,814,760	2,994,037	5,108,346	9,455,129	8.92%
1998	2000	133,156,995	235,813	2,017,913	1,998,334	4,646,469	6,880,616	5.17%
1999	2001	142,537,692	368,706	2,929,441	2,803,175	1,668,025	4,839,906	3.40%
2000	2002	150,287,930	368,694	2,285,050	2,291,770	5,098,103	7,758,567	5.16%
2001	2003	155,982,828	1,135,571	1,436,990	1,436,990	4,494,486	7,067,047	4.53%
2002	2004	146,407,222	750,252	3,485,375	2,816,777	1,293,453	4,860,481	3.32%
2003	2005	174,200,000	793,048	2,898,305	2,898,305	6,429,875	10,121,228	5.81%
2004	2006	131,197,783	459,670	2,379,170	2,364,838	2,391,723	5,216,231	3.98%
2005	2007	159,616,613	265,216	3,040,328	3,045,323	12,449,638	15,760,177	9.87%
2006	2008	179,000,000	193,982	893,600	708,534	5,209,753	6,112,269	3.41%
2007	2009	144,000,000	252,120	4,007,244	4,000,465	6,290,036	10,542,621	7.32%
2008	2010	145,000,000	188,604	704,355	699,931	12,880,255	13,768,790	9.50%
2009	2011	149,000,000	221,476	1,002,464	987,631	1,880,604	3,089,711	2.07%
2010	2012	148,000,000	287,167	674,536	394,942	3,384,656	4,066,765	2.75%
2011	2013	150,000,000						

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Brood year	Return year	Fry release	Hatchery contribution to broodstock esc. [a]	Total sales harvest	Hatchery contribution to sales harvest	Hatchery contribution to the CCPF [b]	Total hatchery return	Estimated marine survival
Wally Noerenberg Hatchery								
1996	1998	106,440,456	1,163,890	2,437,615	2,427,120	4,817,354	8,408,364	7.90%
1997	1999	103,675,208	886,277	3,860,431	3,861,891	4,828,682	9,576,850	9.24%
1998	2000	123,869,678	255,851	3,536,232	3,520,212	4,980,503	8,756,566	7.07%
1999	2001	116,069,339	325,003	4,937,169	4,949,180	1,906,503	7,180,686	6.19%
2000	2002	127,651,881	350,000	3,471,338	3,426,483	1,840,319	5,616,802	4.40%
2001	2003	106,229,524	982,982	4,400,958	4,400,958	12,422,082	17,806,022	16.76%
2002	2004	119,553,743	360,928	2,292,300	2,292,300	144,533	2,797,761	2.34%
2003	2005	110,000,000	1,043,736	3,619,170	3,619,170	4,515,479	9,178,385	8.34%
2004	2006	84,060,920	321,679	2,327,268	2,327,268	1,459,313	4,108,260	4.89%
2005	2007	84,795,328	236,438	3,472,456	3,456,332	3,831,328	7,524,098	8.87%
2006	2008	77,200,000	202,568	1,265,683	1,068,239	7,429,854	8,700,661	11.27%
2007	2009	136,000,000	242,345	1,343,506	1,316,027	1,664,792	3,223,164	2.37%
2008	2010	128,000,000	204,202	1,573,523	1,573,523	15,540,309	17,318,034	13.53%
2009	2011	136,000,000	252,308	2,114,370	2,094,128	4,341,563	6,687,999	4.92%
2010	2012	136,000,000	255,069	1,378,093	1,134,053	4,306,100	5,695,222	4.19%
2011	2013	137,000,000						
Cannery Creek Hatchery								
1996	1998	136,838,852	904,945	1,324,307	1,305,144	4,869,014	7,079,103	5.17%
1997	1999	137,571,564	1,293,460	2,076,361	2,014,448	5,414,942	8,722,850	6.34%
1998	2000	131,195,588	280,811	1,538,039	1,575,341	4,688,206	6,544,358	4.99%
1999	2001	132,236,317	428,859	1,089,998	1,103,072	589,171	2,121,102	1.60%
2000	2002	139,226,716	345,082	601,191	616,354	627,065	1,588,501	1.14%
2001	2003	138,626,713	551,247	2,400,133	2,400,133	5,390,008	8,341,388	6.02%
2002	2004	135,584,680	540,129	2,265,538	2,265,538	135,021	2,940,688	2.17%
2003	2005	139,400,000	590,559	2,436,874	2,436,874	10,452,306	13,479,739	9.67%
2004	2006	126,575,805	431,920	1,164,563	1,155,733	1,319,036	2,906,689	2.30%
2005	2007	138,157,160	348,619	1,443,191	1,443,191	5,638,233	7,430,043	5.38%
2006	2008	141,000,000	206,926	1,270,289	1,056,676	9,749,992	11,013,594	7.81%
2007	2009	131,000,000	340,864	667,071	644,852	2,275,948	3,261,664	2.49%
2008	2010	141,000,000	429,115	374,801	379,225	18,971,438	19,779,778	14.03%
2009	2011	139,000,000	290,508	324,403	324,403	3,876,149	4,491,060	3.23%
2010	2012	135,000,000	185,903	106,625	1,974	3,732,276	3,920,153	2.90%
2011	2013	172,526,737						

[a] Includes broodstock (for egg take and roe extraction), ground fish, fish given away, holding mortalities, watershed spawners, and fish remaining in the bay after all harvests were complete.

[b] Commercial common property fisheries.

Appendix E4.–Historical harvest contributions, coded wire tag (CWT) and thermally marked otolith releases, and total returns of pink salmon to all hatcheries combined, 1977–2010.

Brood year	Return year	Fry release [b]	CWT/otolith applied to fry release [c, d]	Hatchery contributions [a]					Estimated marine survival
				Hatchery cost recovery harvest [d]	Commercial common property harvest	Other harvests [e]	Broodstock escapement [f]	Total return	
1977	1979	16,950,784	0	223,748	275,000	0	54,207	552,955	3.26%
1978	1980	25,600,739	0	346,728	1,092,048	0	145,061	1,583,837	6.19%
1979	1981	24,194,000	0	707,037	1,430,747	0	268,501	2,406,285	9.95%
1980	1982	91,076,000	0	1,354,732	4,303,900	0	239,945	5,898,577	6.48%
1981	1983	91,951,000	0	686,963	3,338,366	0	258,062	4,283,391	4.66%
1982	1984	115,107,533	0	415,393	3,313,423	0	341,259	4,070,075	3.54%
1983	1985	116,336,000	0	1,209,960	6,259,923	0	640,340	8,110,223	6.97%
1984	1986	191,306,265	0	905,464	5,662,315	0	466,471	7,034,250	3.68%
1985	1987	231,538,713	646,561	2,691,190	14,197,065	0	1,158,908	18,047,163	7.79%
1986	1988	218,830,647	568,688	1,632,701	8,748,000	0	824,302	11,205,003	5.12%
1987	1989	532,045,966	939,498	5,767,911	10,561,099	0	856,927	19,052,529 [g]	3.58%
1988	1990	507,688,297	1,074,099	6,691,160	24,379,475	0	749,910	33,315,579 [g]	6.56%
1989	1991	615,139,948	1,128,899	5,201,860	20,900,355	3,573,805	1,324,255	32,750,955 [g]	5.32%
1990	1992	603,519,636	1,091,403	2,626,248	4,345,805	30,290	789,880	8,579,332 [g]	1.42%
1991	1993	495,700,200	823,128	1,544,727	2,392,162	14,648	921,073	6,177,575 [g]	1.25%
1992	1994	567,320,470	950,976	7,613,582	21,173,273	56,396	1,422,306	35,100,601 [g]	6.19%
1993	1995	488,575,978	941,811	4,703,457	9,072,469	78,020	1,154,635	14,475,842 [g]	2.96%
1994	1996	613,158,229	1,017,782	5,363,551	14,502,198	0	544,531	24,284,522 [g]	3.96%
1995	1997	651,675,427	1,079,354	9,780,451	14,893,055	226	1,974,521	26,648,253	4.09%
1996	1998	484,525,934	484,525,934	8,666,960	16,145,999	6,931	3,008,251	27,828,141	5.74%
1997	1999	542,356,070	542,356,934	12,988,616	24,838,848	237,318	4,529,055	42,593,837	7.85%
1998	2000	602,128,903	602,128,903	11,055,419	22,099,196	728	1,293,409	34,448,752	5.72%
1999	2001	586,607,038	586,607,038	12,765,960	15,625,341	1,204	1,647,425	30,039,930	5.12%
2000	2002	621,063,728	621,063,728	10,703,126	7,926,335	992	1,497,115	20,127,568	3.24%
2001	2003	603,412,393	603,412,393	12,422,544	34,177,600	606	4,306,418	50,907,168	8.44%
2002	2004	607,943,252	607,943,252	11,825,224	8,835,385	652	1,951,671	22,612,932	3.72%
2003	2005	638,600,000	638,600,000	12,529,283	35,111,009	272	5,013,716	52,654,280	8.25%
2004	2006	564,053,077	564,053,077	9,726,272	10,010,169	384	1,694,390	21,431,215	3.80%
2005	2007	599,490,314	599,490,314	11,888,945	41,505,289	653	1,144,327	54,539,214	9.10%
2006	2008	617,608,302	617,608,302	7,060,364 [h]	33,336,465	715	886,910 [i]	41,284,454	6.68%
2007	2009	610,639,859	610,639,859	6,675,775 [h]	10,260,718	1,295	1,313,429 [i]	18,251,217	2.99%
2008	2010	640,202,628	640,202,628	4,739,891 [h]	65,725,418	1,152	1,047,755 [i]	71,514,216	11.17%
2009	2011	647,083,753	647,083,753	5,403,677 [h]	21,401,314	767	1,070,921 [i]	27,876,679	4.31%
2010	2012	641,603,439	641,603,439	2,759,902 [h]	20,814,709	22,840	803,174 [i]	24,400,625	3.80%

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[a] Data from ADF&G contribution estimates. No otolith collections were made from broodstock escapements after 1999 because the 1997–1999 data indicated broodstock escapements were < 0.05 % wild stock fish. Otolith sampling has been a low priority in the hatchery cost recovery (CR) harvests since 1999 because sampling in the 1997–1999 CR harvests indicated few wild fish (< 2%). Contributions do not include harvest from the Bering and Copper River districts.

[b] Data for brood years 1985 and 1987–1995 provided by the ADF&G CWT project; Prince William Sound Aquaculture Corporation (PWSAC) provided data for all other years.

[c] Brood years 1985–1995 pink salmon were part of the ADF&G CWT project; after 1995, all hatchery pink salmon were thermally marked.

[d] Data for brood years 1985–1995 are from the ADF&G CWT project; after 1995, data obtained from otolith analysis.

[e] Includes donated, discarded, and confiscated fish in addition to all fish harvested in the Southwestern District otolith test fishery.

[f] Beginning in 1994, broodstock numbers include fish processed for roe. Broodstock escapements prior to 1997 may not include fish remaining in the bay and watershed spawners and may underestimate broodstock escapement.

[g] Revised contribution based on individual hatchery CWT adjustment factors. The individual categories were not adjusted; only the total return and estimated marine survival were adjusted.

[h] Hatchery cost recovery is the whole fish purse seine and raceway effort and does not include carcass sales from viable broodstock.

[i] Broodstock escapement includes broodstock sales (carcasses from egg take), holding mortalities, watershed spawners, and fish remaining in the bay after all harvests were complete.

Appendix E5.–Historical harvest contributions, thermally marked otolith releases, and total returns of coho salmon to Prince William Sound hatcheries, brood years 1988–2009.

Solomon Gulch Hatchery

Brood Year	Return Year	Fry Release	Hatchery Contribution to the CCPF [a]	Hatchery Contribution to Subs/PU Harvest [b]	Hatchery Contribution to Sport Harvest [c]	Hatchery Contribution to Broodstock Esc.[d]	Hatchery Contribution to Cost Recovery. [e]	Total Hatchery Return	Estimated Marine Survival
1988	1991	807,153	4,157	984	10,536	1,461	39,176	56,314	6.98%
1989	1992	993,633	5,000	369	17,789	2,651	26,776	52,585	5.29%
1990	1993	1,226,044	102	305	12,979	1,658	2,343	17,387	1.42%
1991	1994	461,388	0	143	19,012	11,376	22,091	52,622	11.41%
1992	1995	915,087	78,006	0	37,474	16,045	21,592	153,117	16.73%
1993	1996	1,325,316	87,360	38	43,467	21,772	13,713	166,350	12.55%
1994	1997	1,875,823	47,500	45	36,520	13,605	9,818	107,488	5.73%
1995	1998	1,315,183	23,717	321	37,126	3,880	19,068	84,112	6.40%
1996	1999	1,748,486	67,232	541	36,310	2,541	12,679	119,303	6.82%
1997	2000	1,863,528	342,490	468	68,014	1,625	24,887	437,484	23.48%
1998	2001	1,625,599	147,000	230	60,201	1,778	25,595	234,804	14.44%
1999	2002	1,519,328	25,017	136	29,945	21,323	8,000	84,421	5.56%
2000	2003	1,821,889	63,132	185	78,405	17,379	4,087	163,188	8.96%
2001	2004	1,275,145	26,711	315	58,489	2,585	9,897	97,997	7.69%
2002	2005	1,442,274	129,966	286	67,291	2,102	30,686	230,331	15.97%
2003	2006	1,968,366	210,382	18	61,169	2,455	16,172	290,196	14.74%
2004	2007	1,511,592	58,299	0	74,853	3,564	17,748	154,464	10.22%
2005	2008	1,973,604	154,383	0	58,689	3,101	22,356	238,529	12.09%
2006	2009	1,828,100	914	131	43,042	3,955	17,424	65,466	3.58%
2007	2010	1,525,927	2,918	189	70,877	2,847	43,722	120,553	7.90%
2008	2011	1,915,058	28,412	883	50,388	7,145	38,285	125,113	6.53%
2009	2012	2,111,389	914	75	59,570	2,458	454	63,471	3.01%

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Wally Noerenberg Hatchery

Brood Year	Return Year	Fry Release	Hatchery Contribution to the CCPF [a]	Hatchery Contribution to Subs/PU Harvest [b]	Hatchery Contribution to Sport Harvest [c]	Hatchery Contribution to Broodstock Esc. [d]	Hatchery Contribution to Cost Recovery. [e]	Total Hatchery Return	Estimated Marine Survival
1988	1991	2,397,419	71,947	36	4,708	6,469	13,990	97,150	4.05%
1989	1992	2,223,282	114,165	20	1,411	0	46,121	161,717	7.27%
1990	1993	1,831,198	39,658	51	1,608	4,857	1,532	47,706	2.61%
1991	1994	1,303,077	81,396	65	3,061	5,439	13,258	103,220	7.92%
1992	1995	1,483,936	34,680	57	1,690	4,964	5,152	46,543	3.14%
1993	1996	2,063,934	26,245	8	3,851	4,081	39,506	73,690	3.57%
1994	1997	275,406	5,626	26	2,084	5,674	0	13,410	4.87%
1995	1998	203,651	2,800	35	3,327	1,541	0	7,703	3.78%
1996	1999	407,715	338	66	2,658	2,533	0	5,595	1.37%
1997	2000	1,068,338	111,256	197	7,963	2,551	0	121,966	11.42%
1998	2001	375,670	2,488	98	11,815	3,277	0	17,678	4.71%
1999	2002	219,967	3,215	105	18,898	2,389	0	24,607	11.19%
2000	2003	485,834	9,624	133	17,459	1,314	0	28,529	5.87%
2001	2004	920,858	9,333	37	14,899	150	637	25,056	2.72%
2002	2005	989,383	53,257	178	28,220	11,450	19	93,124	9.41%
2003	2006	1,057,922	113,997	20	16,531	17,079	0	147,627	13.95%
2004	2007	1,052,897	84,867	36	27,216	2,129	11,975	126,223	11.99%
2005	2008	1,850,000	116,641	90	13,665	2,609	267	133,272	7.20%
2006	2009	1,930,000	20,209	52	13,157	2,064	0	35,482	1.84%
2007	2010	226,000	5,215	9	20,563	1,399	0	27,186	12.03%
2008	2011	3,490,000	95,267	274	25,791	7,374	678	129,384	3.71%
2009	2012	3,480,000	10,276	123	20,078	558	0	31,035	0.89%

[a] Commercial common property fishery (CCPF).

[b] Subsistence and Personal Use fisheries.

[c] No hatchery contribution sampling occurs in the sport fishery. These estimates apply a fixed proportion of Solomon Gulch Hatchery or Wally Noerenberg Hatchery production to sport harvest by reporting area.

[d] Broodstock escapements include all fish remaining after commercial harvests, i.e., fish used for brood, watershed spawners, predation behind the barrier seine, and fish remaining in front of the hatchery.

[e] Hatchery cost recovery is the whole fish purse seine and raceway effort and does not include carcass sales from viable broodstock.

Appendix E6.–Sockeye salmon hatchery and wild stock contributions to the Copper River drift gillnet commercial common property fishery by period, 2012.

				Origin							
				Gulkana		Main Bay		Hatchery	Wild		
Dates		Period	Hours	Number	Percent	Number	Percent	Total	Number	Percent	Total
05/17	- 05/17	1 [a]	12	0	0.0%	0	0.0%	0	156,482	100.0%	156,482
05/21	- 05/21	2 [a]	12	0	0.0%	0	0.0%	0	219,474	100.0%	219,474
05/24	- 05/24	3 [a]	12	0	0.0%	0	0.0%	0	254,279	100.0%	254,279
05/28	- 05/29	4 [a]	24	0	0.0%	0	0.0%	0	152,778	100.0%	152,778
05/31	- 06/02	5 [b]	48	7,190	5.5%	2,713	2.1%	9,903	120,328	92.4%	130,231
06/04	- 06/06	6 [b]	48	9,286	10.8%	1,786	2.1%	11,072	74,644	87.1%	85,716
06/07	- 06/09	7 [b]	48	7,766	16.1%	1,002	2.1%	8,768	39,332	81.8%	48,100
06/11	- 06/13	8	60	13,985	21.9%	1,332	2.1%	15,317	48,616	76.0%	63,933
06/14	- 06/16	9	60	12,707	29.2%	908	2.1%	13,615	29,952	68.8%	43,567
06/18	- 06/19	10	24	8,737	29.2%	312	1.0%	9,050	20,907	69.8%	29,957
06/21	- 06/22	11	24	16,757	34.4%	0	0.0%	16,757	31,991	65.6%	48,748
06/25	- 06/26	12	36	42,311	45.8%	6,731	7.3%	49,042	43,272	46.9%	92,314
06/28	- 06/29	13	36	33,786	42.1%	0	0.0%	33,786	46,455	57.9%	80,241
07/02	- 07/04	14	48	63,660	39.6%	1,675	1.0%	65,335	95,489	59.4%	160,824
07/05	- 07/07	15	48	19,251	35.4%	0	0.0%	19,251	35,182	64.6%	54,433
07/09	- 07/11	16	48	62,621	46.2%	2,913	2.2%	65,534	69,903	51.6%	135,437
07/12	- 07/14	17	48	14,526	38.5%	0	0.0%	14,526	23,163	61.5%	37,689
07/16	- 07/18	18	48	10,362	27.1%	0	0.0%	10,362	27,896	72.9%	38,258
07/19	- 07/20	19	36	4,700	25.0%	0	0.0%	4,700	14,100	75.0%	18,800
07/23	- 07/24	20	36	1,583	23.7%	0	0.0%	1,583	5,101	76.3%	6,684
07/26	- 07/27	21	36	880	16.3%	0	0.0%	880	4,510	83.7%	5,390
07/30	- 07/31	22 [b]	36	291	11.8%	0	0.0%	291	2,176	88.2%	2,467
08/02	- 08/03	23 [b]	36	1	7.0%	0	0.0%	1	14	93.0%	15
08/06	- 08/07	24 [b]	36	3	2.2%	0	0.0%	3	134	97.8%	137
08/09	- 08/10	25 [a]	36	0	0.0%	0	0.0%	0	83	100.0%	83
08/13	- 08/14	26 [a]	36	0	0.0%	0	0.0%	0	179	100.0%	179
08/16	- 08/17	27 [a]	24	0	0.0%	0	0.0%	0	209	100.0%	209
08/20	- 08/21	28 [a]	24	0	0.0%	0	0.0%	0	85	100.0%	85
08/27	- 08/28	29 [a]	24	0	0.0%	0	0.0%	0	23	100.0%	23
09/03	- 09/04	30 [a]	24	0	0.0%	0	0.0%	0	3	100.0%	3
09/06	- 09/07	31 [a]	24	0	0.0%	0	0.0%	0	3	100.0%	3
09/10	- 09/11	32 [a]	24	0	0.0%	0	0.0%	0	2	100.0%	2
09/13	- 09/14	33 [c]	24	0	0.0%	0	0.0%	0	0	0.0%	0
09/17	- 09/18	34 [c]	36	0	0.0%	0	0.0%	0	0	0.0%	0
09/20	- 09/22	35 [c]	48	0	0.0%	0	0.0%	0	0	0.0%	0
09/24	- 09/26	36 [c]	48	0	0.0%	0	0.0%	0	0	0.0%	0
09/27	- 09/30	37 [c]	72	0	0.0%	0	0.0%	0	0	0.0%	0
10/01	10/03	38 [c]	48	0	0.0%	0	0.0%	0	0	0.0%	0
10/04	10/06	39 [c]	48	0	0.0%	0	0.0%	0	0	0.0%	0
10/08	10/10	40 [c]	48	0	0.0%	0	0.0%	0	0	0.0%	0
Total				330,402	17.7%	19,372	1.0%	349,774	1,516,767	81.3%	1,866,541

[a] Samples not collected by ADF&G staff. Entire harvest attributed to wild origins.

[b] Estimated from a linear interpolation of adjacent periods.

[c] No harvest reported.

Appendix E7.–Gulkana Hatchery sockeye salmon harvests and total contribution, 1977–2012.

Year	Hatchery Contributions			Broodstock/ Escapement[d]	Total Hatchery Run
	Commercial[a]	Subsistence/ Personal Use[b]	Sport[c]		
1977	183	12	0	122	318
1978	720	74	1	1,300	2,095
1979	900	393	6	3,425	4,724
1980	350	589	22	4,250	5,211
1981	3,600	478	9	4,650	8,736
1982	3,600	322	4	5,740	9,666
1983	6,600	1,167	14	8,396	16,177
1984	5,318	450	9	4,846	10,623
1985	31,955	2,121	73	24,021	58,170
1986	30,404	2,667	113	25,408	58,592
1987	47,347	3,071	182	25,505	76,105
1988	92,552	9,351	260	94,563	196,726
1989	175,643	13,734	532	120,872	310,781
1990	64,917	7,203	209	55,431	127,760
1991	102,009	9,449	220	63,400	175,078
1992	87,120	11,455	257	84,000	182,832
1993	149,844	14,812	370	17,600	182,625
1994	94,656	9,157	158	40,736	144,707
1995	147,844	15,289	342	45,733	209,208
1996	314,916	16,144	849	151,762	483,671
1997	266,724	8,857	189	92,745	368,515
1998	524,985	31,824	1,038	106,954	664,801
1999	945,287	42,281	868	109,663	1,098,099
2000	366,372	34,113	1,006	75,385	476,876
2001	196,326	35,699	356	75,620	308,001
2002	335,451	28,305	548	62,361	426,665
2003	138,056	19,513	253	45,024	202,845
2004	59,540	27,117	163	6,618	93,438
2005	95,897	28,031	200	92,455	216,583
2006	163,691	26,860	163	97,192	287,906
2007	94,232	9,656	89	28,648	132,625
2008	21,669	19,175	207	44,865	85,916
2009	59,948	29,355	335	43,409	133,047
2010	207,915	68,180	533	157,980	434,608
2011	487,916	33,113	299	59,589	580,917
10-Year Average	166,431	28,930	279	63,814	259,455
2012	330,402	43,549	389	65,348	439,688

[a] Commercial contributions are from strontium marks (2004–current), coded wire tags (1995–2003), and fry to adult survival, age composition at return, and exploitation rate (1977–1994).

[b] Subsistence and personal use contributions are from strontium marks (2004–current), coded wire tags (1995–2003), and fry to adult survival, age composition at return, and exploitation rate (1977–1994).

[c] Sport fishery contributions are the sum of sport harvest from Copper River mainstem and Gulkana River multiplied by Gulkana Hatchery contribution percentage to the Glennallen subsistence and Chitina personal use fisheries for that year.

[d] Broodstock and escapement contributions are based on survey of release sites and hatchery reporting.

Appendix E8.–Gulkana Hatchery salmon fry releases, 1974–2012.

	Chinook salmon			Sockeye salmon					
Release Year	Monsoon Lake	Gulkana River (E. Fork)	Total Chinook salmon released	Gulkana I & II (Paxson Lake)	Summit Lake	Crosswind Lake	Harding Lake	Ten Mile Lake	Total sockeye salmon released
1974				79,691				99,620	179,311
1975				785,110				101,446	886,556
1976				626,007				101,600	727,607
1977				516,326				112,248	628,574
1978				479,864				104,058	583,922
1979				940,666				99,589	1,040,255
1980				1,105,397	1,340,660				2,446,057
1981				3,388,682	1,860,491				5,249,173
1982				5,985,270	2,047,947				8,033,217
1983				5,470,056	4,312,628				9,782,684
1984				6,079,838	4,739,293				10,819,131
1985				10,130,942	9,296,882	1,419,095			20,846,919
1986				8,586,509	14,999,085				23,585,594
1987				9,905,907	12,491,826				22,397,733
1988		1,388	1,388	6,389,963	12,026,642	2,487,396	503,375		21,407,376
1989	15,977		15,977	10,870,655	12,004,491	3,130,373	515,046		26,520,565
1990				14,127,313	6,445,011	4,906,005	505,305		25,983,634
1991	26,209		26,209	11,288,721	6,109,833	5,469,759			22,868,313
1992	30,488	34,842	65,330	11,640,000	7,049,000	8,420,000			27,109,000
1993				5,866,230	2,661,549	5,627,346			14,155,125
1994				11,008,964	7,637,009	9,144,382			27,790,355
1995				12,345,894	7,418,311	9,973,600			29,737,805
1996				12,241,896	8,400,148	9,732,911			30,374,955
1997				12,286,366	8,987,213	10,516,107			31,789,686
1998				11,589,845	10,162,655	10,512,299			32,264,799
1999				11,551,836	9,191,217	9,984,392			30,727,445
2000				10,705,795	3,300,504	8,331,080			22,337,379
2001				7,870,334	493,516	5,585,665			13,949,515
2002				11,922,685	5,805,231	8,174,754			25,902,670
2003				11,284,330	6,599,519	8,360,966			26,244,815
2004				12,408,512	6,574,962	8,359,115			27,342,589
2005				3,308,065	0	3,703,295			7,011,360
2006				5,523,920	4,681,325	10,017,211			20,222,456
2007				6,000,000	6,000,000	10,000,000			22,000,000
2008				6,000,000	6,000,000	9,980,000			21,980,000
2009				6,000,000	6,000,000	10,000,000			22,000,000
2010				6,010,000	6,000,000	10,000,000			22,010,000
2011				6,000,000	5,980,000	10,000,000			21,980,000
10-Year Average				7,445,751	5,364,104	8,859,534			21,669,389
2012				7,340,000	5,950,000	9,570,000			22,860,000

Appendix E9.–Sockeye salmon hatchery and wild stock contributions to the Coghill District commercial common property fishery by period, 2012.

				Origin									
				Gulkana[a]		Main Bay		Solf Lake		Hatchery	Wild		
Dates		Period	Hours	Number	Percent	Number	Percent	Number	Percent	Total	Number	Percent	Total
05/31	- 06/03	1	72 [a]	ND	ND	378	46.7%	0	0.0%	378	431	53.3%	809
06/04	- 06/05	2	36	ND	ND	728	46.7%	0	0.0%	728	831	53.3%	1,559
06/07	- 06/10	3	72 [b]	ND	ND	2,289	31.1%	0	0.0%	2,289	5,060	68.9%	7,349
06/11	- 06/13	4	48	ND	ND	1,622	15.6%	0	0.0%	1,622	8,757	84.4%	10,379
06/14	- 06/17	5	72	ND	ND	4,209	29.2%	0	0.0%	4,209	10,190	70.8%	14,399
06/18	- 06/20	6	48	ND	ND	8,641	42.9%	222	1.1%	8,862	11,300	56.0%	20,162
06/21	- 06/24	7	72	ND	ND	8,930	19.6%	0	0.0%	8,930	36,714	80.4%	45,644
06/25	- 06/27	8	48	ND	ND	15,448	55.8%	0	0.0%	15,448	12,242	44.2%	27,690
06/28	- 06/30	9	60	ND	ND	9,496	15.6%	0	0.0%	9,496	51,280	84.4%	60,776
07/02	- 07/04	10	48	ND	ND	3,474	7.4%	0	0.0%	3,474	43,672	92.6%	47,146
07/05	- 07/08	11	72	ND	ND	5,188	6.4%	0	0.0%	5,188	76,092	93.6%	81,280
07/09	- 07/11	12	48	ND	ND	2,010	5.4%	0	0.0%	2,010	35,373	94.6%	37,383
07/11	- 07/12	13	24	ND	ND	383	5.0%	0	0.0%	383	7,279	95.0%	7,662
07/12	- 07/15	14	72	ND	ND	11,019	38.5%	0	0.0%	11,019	17,631	61.5%	28,650
07/16	- 07/18	15	48	ND	ND	3,997	19.7%	0	0.0%	3,997	16,296	80.3%	20,293
07/18	- 07/19	16	24	ND	ND	546	11.7%	0	0.0%	546	4,118	88.3%	4,664
07/19	- 07/20	17	24	ND	ND	0	0.0%	0	0.0%	0	6,146	100.0%	6,146
07/20	- 07/21	18	24	ND	ND	563	28.6%	0	0.0%	563	1,409	71.4%	1,972
07/21	- 07/22	19	36	ND	ND	659	14.3%	0	0.0%	659	3,952	85.7%	4,611
07/23	- 07/26	20	70	ND	ND	923	25.3%	0	0.0%	923	2,729	74.7%	3,652
07/26	- 07/27	21	36	ND	ND	0	0.0%	0	0.0%	0	421	100.0%	421
07/28	- 07/30	22	60 [c]	ND	ND	0	0.0%	0	0.0%	0	1,185	100.0%	1,185
08/01	- 08/01	23	14 [d]	ND	ND	0	0.0%	0	0.0%	0	116	100.0%	116
08/04	- 08/04	24	14 [d]	ND	ND	0	0.0%	0	0.0%	0	361	100.0%	361
08/05	- 08/05	25	14 [d]	ND	ND	0	0.0%	0	0.0%	0	132	100.0%	132
08/06	- 08/06	26	14 [c]	ND	ND	0	0.0%	0	0.0%	0	82	100.0%	82
08/08	- 08/08	27	14 [c]	ND	ND	0	0.0%	0	0.0%	0	248	100.0%	248
08/10	- 08/10	28	14 [d]	ND	ND	0	0.0%	0	0.0%	0	133	100.0%	133
08/12	- 08/12	29	14 [c]	ND	ND	0	0.0%	0	0.0%	0	147	100.0%	147
08/14	- 08/14	30	14 [c]	ND	ND	0	0.0%	0	0.0%	0	93	100.0%	93
08/16	- 08/16	31	14 [c]	ND	ND	0	0.0%	0	0.0%	0	82	100.0%	82

-continued-

Dates		Period	Hours	Origin									
				Gulkana[a]		Main Bay		Solf Lake		Hatchery	Wild		
				No.	Percent	No.	Percent	No.	Percent	Total	No.	Percent	Total
08/18	- 08/18	32	14 [c]	ND	ND	0	0.0%	0	0.0%	0	51	100.0%	51
08/20	- 08/20	33	14 [c]	ND	ND	0	0.0%	0	0.0%	0	35	100.0%	35
08/22	- 08/22	34	12 [d]	ND	ND	0	0.0%	0	0.0%	0	7	100.0%	7
08/24	- 08/24	35	12 [d]	ND	ND	0	0.0%	0	0.0%	0	10	100.0%	10
08/26	- 08/26	36	12 [d]	ND	ND	0	0.0%	0	0.0%	0	16	100.0%	16
08/27	- 08/27	37	12 [d]	ND	ND	0	0.0%	0	0.0%	0	5	100.0%	5
08/28	- 08/28	38	12 [d]	ND	ND	0	0.0%	0	0.0%	0	4	100.0%	4
08/29	- 08/29	39	12 [d]	ND	ND	0	0.0%	0	0.0%	0	3	100.0%	3
08/30	- 08/30	40	12 [d]	ND	ND	0	0.0%	0	0.0%	0	7	100.0%	7
08/31	- 08/31	41	12 [d]	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
09/01	- 09/01	42	12 [e]	ND	ND	0	0.0%	0	0.0%	0	1	100.0%	1
09/02	- 09/02	43	12 [d]	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
09/03	- 09/03	44	12 [e]	ND	ND	0	0.0%	0	0.0%	0	1	100.0%	1
09/04	- 09/04	45	12 [d]	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
09/05	- 09/05	46	12 [e]	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
09/06	- 09/08	47	60 [e]	ND	ND	0	0.0%	0	0.0%	0	2	100.0%	2
09/09	- 09/12	48	84 [d]	ND	ND	0	0.0%	0	0.0%	0	814	100.0%	814
09/13	09/16	49	84 [e]	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
Total				0	0.0%	80,502	18.5%	222	0.1%	80,724	355,458	81.5%	436,182

[a] Samples were not collected by ADF&G staff. Proportions are based on period 2 results.

[b] Samples were not collected by ADF&G staff. Proportions are based on the average of period 2 and 4 results.

[c] Samples were collected, but not processed. Entire harvest attributed to wild origins.

[d] Samples were not collected by ADF&G staff. Entire harvest attributed to wild origins.

[e] No harvest reported.

Appendix E10.–Pink salmon hatchery and wild stock contributions to the Coghill District commercial common property fishery by period, 2012.

Dates		Period	Hours	Origin: Solomon Gulch Number	Solomon Gulch Percent	Cannery Creek Number	Cannery Creek Percent	Wally Noerenberg Number	Wally Noerenberg Percent	A.F. Koernig Number	A.F. Koernig Percent	Hatchery total	Wild Number	Wild Percent	Total
05/31	- 06/03	1	72 [a]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	2	100.0%	2
06/04	- 06/05	2	36 [b]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	13,489	100.0%	13,489
06/07	- 06/10	3	72 [b]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
06/11	- 06/13	4	48 [b]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
06/14	- 06/17	5	72 [a]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	1	100.0%	1
06/18	- 06/20	6	48 [a]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	6	100.0%	6
06/21	- 06/24	7	72 [a]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	63	100.0%	63
06/25	- 06/27	8	48 [a]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	235	100.0%	235
06/28	- 06/30	9	60 [c]	169	62.2%	0	0.0%	0	0.0%	0	0.0%	169	103	37.8%	272
07/02	- 07/04	10	48 [c]	1,502	62.2%	0	0.0%	0	0.0%	0	0.0%	1,502	915	37.8%	2,417
07/05	- 07/08	11	72 [c]	2,391	62.2%	0	0.0%	0	0.0%	0	0.0%	2,391	1,455	37.8%	3,846
07/09	- 07/11	12	48 [c]	4,507	62.2%	0	0.0%	0	0.0%	0	0.0%	4,507	2,743	37.8%	7,250
07/11	- 07/12	13	24	1,475	62.2%	0	0.0%	0	0.0%	0	0.0%	1,475	898	37.8%	2,373
07/12	- 07/15	14	72 [d]	12,729	53.2%	0	0.0%	0	0.0%	0	0.0%	12,729	11,193	46.8%	23,922
07/16	- 07/18	15	48	14,537	44.3%	0	0.0%	0	0.0%	0	0.0%	14,537	18,306	55.7%	32,843
07/18	- 07/19	16	24	601	12.9%	0	0.0%	451	9.7%	0	0.0%	1,052	3,607	77.4%	4,659
07/19	- 07/20	17	24	0	0.0%	0	0.0%	647	2.9%	0	0.0%	647	22,003	97.1%	22,650
07/20	- 07/21	18	24	655	5.2%	0	0.0%	436	3.4%	218	1.7%	1,309	11,346	89.7%	12,655
07/21	- 07/22	19	36	10,159	13.5%	781	1.0%	25,789	34.4%	2,344	3.1%	39,074	35,948	47.9%	75,022
07/23	- 07/26	20	70	6,788	3.1%	4,526	2.1%	101,824	46.9%	2,263	1.0%	115,401	101,824	46.9%	217,225
07/26	- 07/27	21	36	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	12,217	100.0%	12,217
07/28	- 07/30	22	60	3,972	1.1%	3,972	1.1%	194,604	54.4%	3,972	1.1%	206,518	150,917	42.2%	357,435
08/01	- 08/01	23	14	0	0.0%	0	0.0%	359	3.3%	0	0.0%	359	10,402	96.7%	10,761
08/04	- 08/04	24	14	0	0.0%	29,528	4.2%	605,322	86.3%	0	0.0%	634,850	66,438	9.5%	701,288
08/05	- 08/05	25	14 [e]	0	0.0%	9,962	13.0%	54,845	71.8%	0	0.0%	64,807	11,575	15.2%	76,382
08/06	- 08/06	26	14	0	0.0%	37,302	21.9%	97,695	57.3%	0	0.0%	134,997	35,526	20.8%	170,523
08/08	- 08/08	27	14	0	0.0%	4,125	1.1%	284,623	72.6%	0	0.0%	288,748	103,124	26.3%	391,872
08/10	- 08/10	28	14	0	0.0%	10,015	3.1%	290,435	90.6%	0	0.0%	300,450	20,030	6.3%	320,480
08/12	- 08/12	29	14	0	0.0%	6,036	2.1%	259,536	89.6%	0	0.0%	265,572	24,143	8.3%	289,715
08/14	- 08/14	30	14	0	0.0%	0	0.0%	222,645	97.9%	4,737	2.1%	227,382	0	0.0%	227,382
08/16	- 08/16	31	14	0	0.0%	7,903	5.3%	137,514	92.6%	1,581	1.1%	146,997	1,581	1.1%	148,578
08/18	- 08/18	32	14 [f]	0	0.0%	5,754	5.3%	100,125	92.6%	1,151	1.1%	107,030	1,151	1.1%	108,181

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			Origin											
			Solomon Gulch		Cannery Creek		Wally Noerenberg		A.F. Koernig		Hatchery	Wild		
Dates	Period	Hours	Number	Percent	Number	Percent	Number	Percent	Number	Percent	total	Number	Percent	Total
08/20 - 08/20	33	14 [f]	0	0.0%	2,987	5.3%	51,969	92.6%	597	1.1%	55,553	597	1.1%	56,150
08/22 - 08/22	34	12 [f]	0	0.0%	29	5.3%	504	92.6%	6	1.1%	539	6	1.1%	545
08/24 - 08/24	35	12 [f]	0	0.0%	32	5.3%	558	92.6%	6	1.1%	597	6	1.1%	603
08/26 - 08/26	36	12 [f]	0	0.0%	3,138	5.3%	54,607	92.6%	628	1.1%	58,373	628	1.1%	59,001
08/27 - 08/27	37	12 [f]	0	0.0%	846	5.3%	14,714	92.6%	169	1.1%	15,729	169	1.1%	15,898
08/28 - 08/28	38	12 [f]	0	0.0%	1,674	5.3%	29,131	92.6%	335	1.1%	31,140	335	1.1%	31,475
08/29 - 08/29	39	12 [f]	0	0.0%	371	5.3%	6,449	92.6%	74	1.1%	6,894	74	1.1%	6,968
08/30 - 08/30	40	12 [f]	0	0.0%	459	5.3%	7,990	92.6%	92	1.1%	8,541	92	1.1%	8,633
08/31 - 08/31	41	12 [f]	0	0.0%	123	5.3%	2,133	92.6%	25	1.1%	2,280	25	1.1%	2,305
09/01 - 09/01	42	12 [f]	0	0.0%	151	5.3%	2,625	92.6%	30	1.1%	2,806	30	1.1%	2,836
09/02 - 09/02	43	12 [f]	0	0.0%	94	5.3%	1,628	92.6%	19	1.1%	1,740	19	1.1%	1,759
09/03 - 09/03	44	12 [f]	0	0.0%	23	5.3%	403	92.6%	5	1.1%	430	5	1.1%	435
09/04 - 09/04	45	12 [f]	0	0.0%	359	5.3%	6,247	92.6%	72	1.1%	6,678	72	1.1%	6,750
09/05 - 09/05	46	12 [f]	0	0.0%	47	5.3%	814	92.6%	9	1.1%	871	9	1.1%	880
09/06 - 09/08	47	60 [f]	0	0.0%	121	5.3%	2,101	92.6%	24	1.1%	2,246	24	1.1%	2,270
09/09 - 09/12	48	84 [b]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/13 - 09/16	49	84 [b]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/17 - 09/19	50	60 [b]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/20 - 09/23	51	84 [b]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
Totals			59,485	1.7%	130,356	3.8%	2,558,725	74.6%	18,356	0.5%	2,766,922	663,330	19.3%	3,430,252

[a] Samples not collected by ADF&G staff. Entire harvest attributed to wild origins.

[b] No harvest reported.

[c] Samples not collected by ADF&G staff. Proportions based on period 13.

[d] Samples collected but not processed. Proportions based on the average of periods 13 and 15.

[e] Samples not collected by ADF&G staff. Proportions based on the average of periods 24 and 26.

[f] Samples not collected by ADF&G staff. Proportions based on period 31 results.

Appendix E11.–Chum salmon hatchery and wild stock contributions to the Coghill District commercial common property harvest, 2012.

Dates		Period	Hours	Wally Noerenberg		Port Chalmers		Armin F Koernig		Mixed Release		Hatchery	Wild		
				Number	Percent	Number	Percent	Number	Percent	Number	Percent	Total	Number	Percent	Total
05/31	- 06/03	1	72 [a]	27,821	71.4%	0	0.0%	10,433	26.8%	0	0.0%	38,253	696	1.8%	38,949
06/04	- 06/05	2	36	37,285	71.4%	0	0.0%	13,982	26.8%	0	0.0%	51,267	932	1.8%	52,199
06/07	- 06/10	3	72 [b]	72,092	65.6%	0	0.0%	32,036	29.2%	0	0.0%	104,128	5,759	5.2%	109,887
06/11	- 06/13	4	48	47,063	59.8%	0	0.0%	24,815	31.5%	0	0.0%	71,878	6,846	8.7%	78,724
06/14	- 06/17	5	72	120,200	78.9%	0	0.0%	28,780	18.9%	3,386	2.2%	152,366	0	0.0%	152,366
06/18	- 06/20	6	48	59,955	71.6%	0	0.0%	20,279	24.2%	0	0.0%	80,234	3,527	4.2%	83,761
06/21	- 06/24	7	72	67,614	75.3%	0	0.0%	20,284	22.6%	0	0.0%	87,898	1,932	2.2%	89,830
06/25	- 06/27	8	48	159,348	72.9%	0	0.0%	52,357	24.0%	0	0.0%	211,706	6,829	3.1%	218,535
06/28	- 06/30	9	60	89,166	75.3%	0	0.0%	24,202	20.4%	1,274	1.1%	114,643	3,821	3.2%	118,464
07/02	- 07/04	10	48	112,891	71.0%	8,552	5.4%	35,920	22.6%	0	0.0%	157,364	1,710	1.1%	159,074
07/05	- 07/08	11	72	129,021	70.7%	0	0.0%	51,608	28.3%	0	0.0%	180,629	1,985	1.1%	182,614
07/09	- 07/11	12	48	151,591	78.7%	0	0.0%	36,873	19.1%	0	0.0%	188,464	4,097	2.1%	192,561
07/11	- 07/12	13	24 [c]	9,881	73.9%	0	0.0%	3,270	24.5%	0	0.0%	13,151	213	1.6%	13,364
07/12	- 07/15	14	72	228,301	69.1%	0	0.0%	98,345	29.8%	0	0.0%	326,647	3,512	1.1%	330,159
07/16	- 07/18	15	48	125,363	58.5%	0	0.0%	88,893	41.5%	0	0.0%	214,256	0	0.0%	214,256
07/18	- 07/19	16	24 [d]	40,528	61.0%	0	0.0%	25,223	38.5%	357	0.5%	66,109	357	0.5%	66,466
07/19	- 07/20	17	24	62,335	63.4%	0	0.0%	33,809	35.5%	1,057	1.1%	97,200	1,057	1.1%	98,257
07/20	- 07/21	18	24 [e]	19,626	65.8%	0	0.0%	8,944	30.5%	160	0.5%	28,730	1,113	3.7%	29,843
07/21	- 07/22	19	36	99,269	68.1%	0	0.0%	37,226	25.5%	0	0.0%	136,495	9,306	6.4%	145,801
07/23	- 07/26	20	70	37,291	58.3%	0	0.0%	15,982	26.0%	1,332	2.1%	54,604	9,323	14.6%	63,927
07/26	- 07/27	21	36 [f]	64	46.6%	0	0.0%	31	23.3%	1	1.0%	97	40	29.5%	137
07/28	- 07/30	22	60	1,600	34.9%	0	0.0%	946	20.6%	0	0.0%	2,546	2,037	44.4%	4,583
08/01	- 08/01	23	14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	336	100.0%	336
08/04	- 08/04	24	14 [g]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	2,182	100.0%	2,182
08/05	- 08/05	25	14 [h]	249	26.7%	0	0.0%	218	23.3%	0	0.0%	467	467	50.0%	934
08/06	- 08/06	26	14	479	26.7%	0	0.0%	419	23.3%	0	0.0%	898	898	50.0%	1,795
08/08	- 08/08	27	14 [h]	298	26.7%	0	0.0%	260	23.3%	0	0.0%	558	558	50.0%	1,116
08/10	- 08/10	28	14 [i]	635	30.0%	0	0.0%	482	22.8%	24	1.1%	1,140	975	46.1%	2,115
08/12	- 08/12	29	14 [j]	106	33.3%	0	0.0%	71	22.2%	7	2.2%	184	134	42.2%	318
08/14	- 08/14	30	14	93	33.3%	0	0.0%	62	22.2%	6	2.2%	161	118	42.2%	279
08/16	- 08/16	31	14 [j]	54	33.3%	0	0.0%	36	22.2%	4	2.2%	94	69	42.2%	163
08/18	- 08/18	32	14 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	144	100.0%	144

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Dates		Period	Hours	Wally Noerenberg Number	Wally Noerenberg Percent	Port Chalmers Number	Port Chalmers Percent	Armin F Koernig Number	Armin F Koernig Percent	Mixed Number	Mixed Percent	Hatchery Total	Wild Number	Wild Percent	Total
08/20	- 08/20	33	14 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	50	100.0%	50
08/22	- 08/22	34	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	9	100.0%	9
08/24	- 08/24	35	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	19	100.0%	19
08/26	- 08/26	36	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	62	100.0%	62
08/27	- 08/27	37	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	9	100.0%	9
08/28	- 08/28	38	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	34	100.0%	34
08/29	- 08/29	39	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	3	100.0%	3
08/30	- 08/30	40	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
08/31	- 08/31	41	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	1	100.0%	1
09/01	- 09/01	42	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/02	- 09/02	43	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/03	- 09/03	44	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/04	- 09/04	45	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/05	- 09/05	46	12 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/06	- 09/08	47	60 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/09	- 09/12	48	84 [k]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	2,667	100.0%	2,667
09/13	- 09/16	49	84 [l]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/17	- 09/19	50	60 [l]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/20	- 09/23	51	84 [l]	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
Total				1,700,218	69.2%	8,552	0.3%	665,788	27.1%	7,608	0.3%	2,382,166	73,827	3.0%	2,455,993

[a] Samples not collected by ADF&G staff. Proportions based on period 2 results.

[b] Samples not collected by ADF&G staff. Proportions based on an average of period 2 and 4 results.

[c] Samples were collected, but not processed. Proportions based on an average from period 12 and 14 results.

[d] Samples were collected, but not processed. Proportions based on an average from period 15 and 17 results.

[e] Samples were collected, but not processed. Proportions based on an average from period 17 and 19 results.

[f] Samples were collected, but not processed. Proportions based on an average from period 20 and 22 results.

[g] Samples were collected, but not processed. Proportions based on period 23 results.

[h] Samples not collected by ADF&G staff. Proportions based on period 26 results.

[i] Samples were collected, but not processed. Proportions based on an average from period 27 and 29 results.

[j] Samples were collected, but not processed. Proportions based on period 30 results.

[k] Entire harvest attributed to wild stock.

[l] No harvest reported.

Appendix E12.–Daily salmon sales and sex ratios, sales summary, and broodstock summary at the Wally Noerenberg Hatchery, 2012.

	Pink Salmon					Chum Salmon					Coho Salmon	
Date	% Female	Sales Harvest[a]	Sales Harvest cumulative	Brood Stock[b]	Brood Stock cumulative	% Female	Sales Harvest[a]	Sales Harvest cumulative	Brood Stock[b]	Brood Stock cumulative	Sales Harvest	Sales Harvest cumulative
06/11		0	0	0	0	18.9%	13,858	13,858	0	0	0	0
06/12		0	0	0	0	18.1%	18,690	32,548	0	0	0	0
06/13		0	0	0	0	30.5%	5,950	38,498	0	0	0	0
06/14		0	0	0	0	21.5%	13,663	52,161	0	0	0	0
06/15		0	0	0	0	17.1%	9,980	62,141	0	0	0	0
06/17		0	0	0	0	28.8%	18,902	71,063	0	0	0	0
06/18		0	0	0	0	27.3%	20,024	91,087	0	0	0	0
06/19		0	0	0	0	27.5%	16,052	107,139	0	0	0	0
06/20		0	0	0	0	31.8%	16,535	123,674	0	0	0	0
06/21		0	0	0	0	32.2%	35,283	158,957	0	0	0	0
07/07		0	0	0	0		1,550	160,507	6,254	6,254	0	0
07/08		0	0	0	0		1,704	162,211	6,088	12,342	0	0
07/09		0	0	0	0		213	162,424	6,415	18,757	0	0
07/10		0	0	0	0		874	163,298	7,444	26,201	0	0
07/11		0	0	0	0		1,042	164,340	9,907	36,108	0	0
07/12		0	0	0	0		1,564	165,904	8,923	45,031	0	0
07/13		0	0	0	0		1,184	167,088	9,344	54,375	0	0
07/14		0	0	0	0		844	167,932	10,585	64,960	0	0
07/15		0	0	0	0		701	168,633	10,246	75,206	0	0
07/16		0	0	0	0		1,546	170,179	9,008	84,214	0	0
07/17		0	0	0	0		1,520	171,699	11,786	96,000	0	0
07/18		0	0	0	0		1,308	173,007	10,303	106,303	0	0
07/19		0	0	0	0		633	173,640	7,242	113,545	0	0
07/20		0	0	0	0		1,177	174,817	10,877	124,422	0	0
07/21		0	0	0	0		1,138	175,955	10,659	135,081	0	0
07/22		0	0	0	0		2,239	178,194	10,738	145,819	0	0
07/23		0	0	0	0		3,326	181,520	9,478	155,297	0	0
07/24		0	0	0	0		2,400	183,920	10,474	165,771	0	0
07/25		0	0	0	0		11,670	195,590	2,979	168,750	0	0
07/26		0	0	0	0		15,064	210,654	41	168,791	0	0
07/27		0	0	0	0		13,444	224,098	109	168,900	0	0
07/28		0	0	0	0		13,384	237,482	135	169,035	0	0
07/29		0	0	0	0		13,107	250,589	129	169,164	0	0
07/30	21.0%	98,806	98,806	0	0		6,780	257,369	74	169,238	0	0
07/31	23.0%	214,801	313,607	0	0		2,633	260,002	0	169,238	0	0
08/01	28.0%	282,263	595,870	0	0		0	260,002	59	169,297	0	0
08/02	30.0%	323,210	919,080	0	0		0	260,002	2,550	171,847	0	0
08/03	29.0%	214,973	1,134,053	0	0		0	260,002	0	171,847	0	0

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Date	Pink Salmon % Female	Pink Salmon Sales Harvest[a]	Pink Salmon Sales Harvest cumulative	Pink Salmon Brood Stock[b]	Pink Salmon Brood Stock cumulative	Chum Salmon % Female	Chum Salmon Sales Harvest[a]	Chum Salmon Sales Harvest cumulative	Chum Salmon Brood Stock[b]	Chum Salmon Brood Stock cumulative	Coho Salmon Sales Harvest	Coho Salmon Sales Harvest cumulative
08/24		1,843	1,135,896	9,192	9,192		0	260,002	0	171,847	0	0
08/25		3,349	1,139,245	11,065	20,257		0	260,002	0	171,847	0	0
08/26		1,668	1,140,913	10,809	31,066		0	260,002	0	171,847	0	0
08/27		2,934	1,143,847	11,748	42,814		0	260,002	0	171,847	0	0
08/28		2,473	1,146,320	17,346	60,160		0	260,002	0	171,847	0	0
08/29		1,824	1,148,144	15,201	75,361		0	260,002	0	171,847	0	0
08/30		1,623	1,149,767	15,928	91,289		0	260,002	0	171,847	0	0
08/31		2,711	1,152,478	17,219	108,508		0	260,002	0	171,847	0	0
09/01		3,397	1,155,875	17,011	125,519		0	260,002	0	171,847	0	0
09/02		4,882	1,160,757	17,125	142,644		0	260,002	0	171,847	0	0
09/03		5,551	1,166,308	12,327	154,971		0	260,002	0	171,847	0	0
09/04		18,780	1,185,088	318	155,289		0	260,002	0	171,847	0	0
09/05		17,009	1,202,097	331	155,620		0	260,002	0	171,847	0	0
09/06		13,956	1,216,053	195	155,815		0	260,002	0	171,847	0	0
09/07		8,913	1,224,966	341	156,156		0	260,002	0	171,847	0	0
09/08		0	1,224,966	0	156,156		0	260,002	0	171,847	0	0
09/09		0	1,224,966	0	156,156		0	260,002	0	171,847	0	0
09/10		0	1,224,966	3,000	159,156		0	260,002	0	171,847	0	0

Hatchery escapement summary[c]	Pink salmon	Chum Salmon	Coho Salmon
Purse seine whole fish harvest	1,134,053	168,937	0
Raceway harvest[d]	63,142	75,663	0
Viable broodstock (spawned, eggs in incubators)	153,127	168,284	486
Unviable broodstock (green/over-ripe/bad)	15,650	12,067	2
Unspawned fish (e.g.,excess males/females)	12,121	13,315	2
Holding mortalities (raceway, pen mortalities)	6,029	3,563	26
Estimated unharvested return[e]	5,000	3,000	42
Estimated total run to hatchery site	1,389,122	444,829	558

Sales Summary	Pink Salmon	Chum Salmon	Coho Salmon
Purse seine whole fish sales	1,134,053	168,937	0
Raceway sales[f]	90,913	101,045	0
Carcass sales[g]	153,127	168,284	0
Total sales	1,378,093	438,266	0

[a] Whole fish from purse seine and raceway sales.

[b] Broodstock daily harvest numbers include viable broodstock and holding mortalities.

[c] Determined by fish tickets and PWSAC egg-take log.

[d] Raceway harvest includes whole fish as well as roe extraction not conducted as eggtake.

[e] Fish remaining in saltwater and freshwater after all hatchery harvest is complete.

[f] Sum of raceway harvest, unviable broodstock and unspawned fish.

[g] Represents the sale of "viable broodstock" carcasses.

Appendix E13.–Sockeye salmon hatchery and wild stock contributions to the Eshamy District commercial common property fishery by period, 2012.

Dates		Period	Hours	Gulkana[a]		Main Bay		Solf Lake		Hatchery	Wild		Total
				Number	Percent	Number	Percent	Number	Percent	Total	Number	Percent	
06/01	– 06/03	1 [a]	48	ND	ND	1578	91.5%	0	0.0%	1,578	147	8.5%	1,725
06/04	– 06/06	2 [a]	48	ND	ND	3991	91.5%	0	0.0%	3,991	372	8.5%	4,363
06/07	– 06/10	3 [a]	72	ND	ND	16991	91.5%	0	0.0%	16,991	1586	8.5%	18,577
06/11	– 06/13	4	48	ND	ND	29459	91.5%	0	0.0%	29,459	2750	8.5%	32,209
06/14	– 06/17	5	72	ND	ND	63876	92.3%	0	0.0%	63,876	5323	7.7%	69,199
06/18	– 06/20	6	48	ND	ND	112393	92.6%	0	0.0%	112,393	8940	7.4%	121,333
06/21	– 06/24	7	72	ND	ND	177695	94.7%	0	1.1%	177,695	9983	5.3%	187,678
06/25	– 06/27	8	48	ND	ND	146958	89.4%	1,750	0.0%	148,708	15,746	9.6%	164,453
06/28	– 07/01	9	72	ND	ND	206167	92.7%	0	0.0%	206,167	16215	7.3%	222,382
07/02	– 07/04	10	48	ND	ND	123829	75.8%	0	1.0%	123,829	39,482	24.2%	163,311
07/05	– 07/08	11	72	ND	ND	106346	85.4%	1,297	0.0%	107,643	16860	13.5%	124,503
07/09	– 07/10	12	36	ND	ND	48880	82.3%	0	0.0%	48,880	10,518	17.7%	59,398
07/12	– 07/14	13	48	ND	ND	36075	91.5%	0	0.0%	36,075	3,367	8.5%	39,442
07/16	– 07/17	14	36	ND	ND	18144	86.3%	0	0.0%	18,144	2,886	13.7%	21,030
07/19	– 07/21	15	48	ND	ND	12315	87.5%	0	0.0%	12,315	1,759	12.5%	14,074
07/23	– 07/25	16 [b]	48	ND	ND	7373	85.2%	0	0.0%	7,373	1283	14.8%	8,656
07/26	– 07/28	17	48	ND	ND	5377	82.9%	0	0.0%	5,377	1,112	17.1%	6,489
07/30	– 08/01	18 [c]	60	ND	ND	7120	82.9%	0	0.0%	7,120	1473	17.1%	8,593
08/02	– 08/04	19 [c]	48	ND	ND	8330	82.9%	0	0.0%	8,330	1,724	17.1%	10,054
08/04	– 08/04	20 [c]	12	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
08/05	– 08/05	21 [d]	12	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
08/06	– 08/06	22 [d]	12	ND	ND	0	0.0%	0	0.0%	0	817	100.0%	817
08/09	– 08/10	23 [e]	36	ND	ND	0	0.0%	0	0.0%	0	3,032	100.0%	3,032
08/13	– 08/13	24 [e]	12	ND	ND	0	0.0%	0	0.0%	0	79	100.0%	79
08/14	– 08/14	25 [e]	14	ND	ND	0	0.0%	0	0.0%	0	248	100.0%	248
08/20	– 08/20	26 [e]	13	ND	ND	0	0.0%	0	0.0%	0	39	100.0%	39
08/27	– 08/27	27 [e]	13	ND	ND	0	0.0%	0	0.0%	0	20	100.0%	20
09/03	– 09/03	28 [e]	12	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
09/06	– 09/06	29 [d]	12	ND	ND	0	0.0%	0	0.0%	0	547	100.0%	547
09/10	– 09/10	30 [e]	12	ND	ND	0	0.0%	0	0.2%	0	0	0.0%	0
09/13	– 09/13	31 [d]	12	ND	ND	0	0.0%	0	0.0%	0	0	0.0%	0
09/17	– 09/17	32 [d]	12	ND	ND	0	0.0%	0	0.0%	0	0		0
Total				0	0.0%	1,132,896	88.4%	3,046	0.2%	1,135,942	146,309	11.4%	1,282,251

[a] No harvest reported.

[b] Samples not collected by ADF&G staff. Proportions based on period 4 results.

[c] Samples not collected by ADF&G staff. Proportions based on an average of period 15 and 17 results.

[d] Samples not collected by ADF&G staff. Proportions based on period 17 results.

[e] Samples not collected by ADF&G staff. Entire harvest attributed to wild origins.

Appendix E14.–Pink salmon hatchery and wild stock contributions to the Eshamy District commercial common property fishery by period, 2012.

				Origin											
				Solomon Gulch		Cannery Creek		Wally Noerenberg		A.F. Koernig		Hatchery	Wild		
Dates		Period	Hours	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Total	Number	Percent	Total
06/01	- 06/03	1 [a]	48	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
06/04	- 06/06	2 [a]	48	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
06/07	- 06/10	3 [a]	72	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
06/11	- 06/13	4 [b]	48	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	1
06/14	- 06/17	5 [b]	72	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	23	0.0%	23
06/18	- 06/20	6 [b]	48	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	26	0.0%	26
06/21	- 06/24	7 [b]	72	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	119	0.0%	119
06/25	- 06/27	8 [b]	48	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	895	0.0%	895
06/28	- 07/01	9 [c]	72	868	39.2%	0	0.0%	0	0.0%	0	0.0%	868	1,346	100.0%	2,214
07/02	- 07/04	10 [c]	48	2,079	39.2%	0	0.0%	0	0.0%	0	0.0%	2,079	3,223	60.8%	5,302
07/05	- 07/08	11	72	8,849	39.2%	0	0.0%	0	0.0%	0	0.0%	8,849	13,717	60.8%	22,566
07/09	- 07/10	12	36	2,206	18.8%	0	0.0%	0	0.0%	0	0.0%	2,206	9,559	60.8%	11,765
07/12	- 07/14	13	48	11,402	50.8%	0	0.0%	0	0.0%	0	0.0%	11,402	11,035	81.3%	22,437
07/16	- 07/17	14	36	2,009	23.9%	0	0.0%	0	0.0%	0	0.0%	2,009	6,391	49.2%	8,400
07/19	- 07/21	15	48	114	2.0%	0	0.0%	0	0.0%	0	0.0%	114	5,488	76.1%	5,602
07/23	- 07/25	16 [d]	48	32	2.0%	0	0.0%	0	0.0%	0	0.0%	32	1,556	98.0%	1,588
07/26	- 07/28	17 [e]	48	91	2.0%	0	0.0%	0	0.0%	0	0.0%	91	4,392	98.0%	4,483
07/30	- 08/01	18 [e]	60	114	2.0%	0	0.0%	0	0.0%	0	0.0%	114	5,492	98.0%	5,606
08/02	- 08/04	19 [e]	48	20	2.0%	0	0.0%	0	0.0%	0	0.0%	20	937	98.0%	957
08/04	- 08/04	20 [a]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	98.0%	0
08/05	- 08/05	21 [a]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
08/06	- 08/06	22 [b]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	5,046	0.0%	5,046
08/09	- 08/10	23 [b]	36	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	3,909	100.0%	3,909
08/13	- 08/13	24 [b]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	679	100.0%	679
08/14	- 08/14	25 [f]	14	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	4,320	100.0%	4,320
08/20	- 08/20	26 [b]	13	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	247	100.0%	247
08/27	- 08/27	27 [f]	13	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	70	100.0%	70
09/03	- 09/03	28 [a]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	100.0%	0
09/06	- 09/06	29 [b]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	7	0.0%	7
09/10	- 09/10	30 [a]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/13	- 09/13	31 [a]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
09/17	- 09/17	32 [a]	12	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0	0.0%	0
Total				27,786	26.1%	0	0.0%	0	0.0%	0	0.0%	27,786	78,475	73.9%	106,262

[a] No harvest reported.
[b] Samples not collected by ADF&G staff. Entire harvest attributed to wild origins.
[c] Samples not collected by ADF&G staff. Proportions based on period 11 results.
[d] Samples not collected by ADF&G staff. Proportions based on period 15 results.
[e] Samples were collected, but not processed. Proportions based on period 15 results.
[f] Samples were collected, but not processed. Entire harvest attributed to wild origins.

APPENDIX F

Appendix F1.–Salmon harvest and effort in the Copper River District subsistence drift gillnet fishery, 1961–2012.

	Permits				Reported Harvest			
Year	Issued	Returned	Fished	Not fished[a]	Chinook	Sockeye	Coho	Total
1961	14	0	0	0	60	137	99	296
1962	14	0	0	0	44	135	3	182
1963	8	0	0	0	3	13	157	173
1964	5	0	0	2	14	0	0	14
1965	31	20	15	5	12	459	85	556
1966	45	31	21	10	47	175	0	222
1967	61	56	37	19	83	153	0	236
1968	17	15	7	8	11	36	0	47
1969	49	33	20	13	16	63	85	164
1970	32	27	24	3	66	179	0	245
1971	29	26	17	9	10	32	4	46
1972	104	80	75	5	149	569	53	771
1973	94	89	89	NA	153	326	180	659
1974	9	5	3	2	5	4	2	11
1975	2	2	2	NA	0	5	0	5
1976	27	14	14	NA	1	10	0	11
1977	23	22	22	NA	10	71	0	81
1978	34	28	9	19	37	18	12	67
1979	49	41	21	20	45	26	17	88
1980	39	35	18	17	19	27	17	63
1981	72	51	30	21	48	145	104	297
1982	108	90	48	42	60	634	106	800
1983	87	73	31	42	79	107	57	243
1984	118	104	57	47	68	324	135	527
1985	94	94	67	27	88	261	83	432
1986	88	85	57	28	86	348	47	481
1987	95	89	39	50	49	359	14	422
1988	114	97	57	40	59	226	42	327
1989	75	64	32	32	56	339	51	446
1990	88	76	40	39	60	469	82	611
1991	129	115	71	44	136	830	38	1,004
1992	126	114	67	47	142	785	42	969
1993	111	93	50	43	120	428	29	577
1994	101	97	60	37	164	474	67	705
1995	126	113	72	41	154	692	31	877
1996	176	158	101	57	276	969	47	1,292
1997	269	243	165	78	200	1,001	1,777	2,978
1998	245	231	144	87	295	850	680	1,825
1999	294	275	175	100	353	1,330	682	2,365
2000	416	400	293	107	689	4,360	44	5,093
2001	468	439	288	151	826	3,072	70	3,968
2002	355	331	199	132	549	3,067	28	3,644
2003	384	365	225	140	710	1,607	36	2,353
2004	511	482	321	161	1,106	1,822	46	2,974
2005	237	224	121	103	260	830	15	1,105
2006	421	399	300	121	779	4,355	1	5,135
2007	469	440	295	145	1,145	6,148	15	7,308
2008	506	480	274	232	470	3,969	53	4,492
2009	323	293	158	165	212	1,764	22	1,998
2010	325	314	150	175	276	1,980	27	2,283
2011	273	263	123	150	212	1,783	34	2,029
10-Year Average	380	359	217	152	572	2,733	28	3,332
2012	378	357	225	153	237	4,270	0	4,507

[a] As reported on returned permits.

Appendix F2.–Salmon harvest and effort in the Prince William Sound general area subsistence fishery, 1965–2012.

	Permits				Reported Harvest[a]						
Year	Issued	Returned	Fished	Not fished[b]	Chinook	Sockeye	Coho	Pink	Chum	Unknown	Total
1965	22	16	0	0	0	0	0	179	25	0	204
1966	3	3	0	0	0	3	19	20	50	0	92
1967	4	3	0	0	0	0	4	4	0	0	8
1968	4	3	0	0	0	0	20	156	0	22	198
1969	7	3	0	0	0	0	16	0	0	0	16
1970	1	1	0	0	0	0	0	0	0	0	0
1971	3	2	0	0	0	0	0	46	0	0	46
1972	0	0	0	0	0	0	0	0	0	0	0
1973	19	16	0	0	0	0	289	0	0	0	289
1974	3	1	0	0	0	0	0	0	0	0	0
1975	2	0	0	0	0	0	0	0	0	0	0
1976	0	0	0	0	0	0	0	0	0	0	0
1977	4	4	0	0	0	0	0	0	0	0	0
1978	3	2	0	0	0	0	0	0	0	0	0
1979	15	2	0	0	0	0	0	0	0	0	0
1980	26	15	0	0	0	7	6	0	0	0	13
1981	12	8	0	0	0	3	29	0	2	0	34
1982	35	27	0	0	0	84	4	31	24	0	143
1983	26	21	0	0	0	22	36	9	79	0	146
1984	8	8	0	0	0	10	0	11	2	0	23
1985	22	16	0	0	1	27	16	14	26	0	84
1986	25	14	0	0	0	5	15	0	0	0	20
1987	18	17	0	0	5	31	6	0	16	0	58
1988	7	7	0	0	2	51	7	10	9	0	79
1989	11	7	0	0	0	0	0	0	3	0	3
1990	8	7	0	0	0	0	7	4	0	0	11
1991	9	5	2	3	0	2	0	0	0	0	2
1992	10	6	1	5	0	20	0	0	0	0	20
1993	6	6	4	2	1	104	10	0	0	0	115
1994	5	4	2	2	0	0	0	0	0	0	0
1995	4	2	0	2	0	0	0	0	0	0	0
1996	10	7	0	7	0	0	0	0	0	0	0
1997	4	3	1	2	0	3	0	0	0	0	3
1998	4	3	0	3	0	0	0	0	0	0	0
1999	3	3	0	3	0	0	0	0	0	0	0
2000	3	3	0	3	0	0	0	0	0	0	0
2001	5	5	0	5	0	0	0	0	0	0	0
2002	11	9	2	7	0	31	0	9	7	0	47
2003	3	3	0	3	0	48	0	0	3	0	51
2004	12	11	5	6	0	8	0	0	3	0	11
2005	14	13	1	12	0	4	0	0	0	0	4
2006	11	9	2	7	0	20	0	30	0	0	50
2007	3	3	1	2	0	30	0	0	0	0	30
2008	11	10	4	6	1	32	0	0	0	0	33
2009	1	1	0	1	0	0	0	0	0	0	0
2010	2	2	1	1	0	0	0	0	0	0	0
2011	4	4	3	1	29	40	1	5	10	0	85
10-Year Average	7	7	2	5	3	21	0	4	2	0	31
2012	14	12	6	6	0	40	0	0	22	0	62

[a] Reported harvest only and includes harvest from Prince William Sound, exclusive of the Copper River District and customary and traditional subsistence locations within PWS.

[b] As reported on returned permits.

Appendix F3.–Salmon harvest and effort in the Tatitlek and Chenega subsistence fisheries, 1988–2012.

	Permits				Reported Harvest[a]						
Year	Issued	Returned	Fished	Not fished[b]	Chinook	Sockeye	Coho	Pink	Chum	Unknown	Total
				Tatitlek							
1988	17	13	9	4	2	210	211	143	245	0	811
1989	14	10	7	3	1	107	653	33	43	0	837
1990	13	6	3	3	0	5	241	10	4	0	260
1991	17	10	7	3	0	107	984	320	28	0	1,439
1992	16	7	5	2	2	441	369	30	49	0	891
1993	18	11	7	4	2	512	305	144	74	180	1,217
1994	14	5	4	1	0	50	143	50	70	0	313
1995	15	3	0	3	0	0	0	0	0	0	0
1996	6	3	1	2	0	0	38	0	0	0	38
1997	6	4	3	1	0	107	45	0	54	0	206
1998	11	4	3	1	0	2	321	4	28	0	355
1999	17	10	8	2	0	344	541	31	31	0	947
2000	12	3	3	0	0	140	468	40	40	0	688
2001	14	9	8	1	0	114	230	60	12	0	416
2002	19	6	5	1	0	375	136	28	36	0	575
2003	15	8	6	2	0	81	185	20	12	0	298
2004	18	12	9	3	2	322	315	46	28	0	713
2005	16	3	2	1	0	98	286	200	16	0	600
2006	12	2	1	1	0	3	18	35	25	0	81
2007	14	0	0	0	NR	NR	NR	NR	NR	NR	0
2008	2	1	1	0	0	60	0	0	0	0	60
2009	12	4	3	1	0	170	131	0	0	0	301
2010	8	5	5	0	0	165	142	50	10	0	367
2011	10	4	4	0	0	922	536	0	22	0	1,480
10-Year Average	13	5	4	1	0	244	194	42	17	0	497
2012	32	7	6	1	15	728	75	0	0	0	818

-continued-

	Permits				Reported Harvest[a]						
Year	Issued	Returned	Fished	Not fished[b]	Chinook	Sockeye	Coho	Pink	Chum	Unknown	Total
				Chenega							
1988	10	6	5	1	1	50	8	251	294	0	604
1989	8	7	7	0	0	322	0	554	180	0	1,056
1990	7	4	2	2	1	36	5	20	2	0	64
1991	12	7	4	3	3	345	42	195	53	0	638
1992	14	6	6	0	1	526	23	313	99	0	962
1993	22	19	17	2	2	875	60	232	124	0	1,293
1994	16	10	8	2	5	192	77	402	161	0	837
1995	10	7	5	2	2	152	67	67	41	0	329
1996	7	6	4	2	0	135	9	125	46	0	315
1997	5	4	4	0	44	193	30	110	272	0	649
1998	4	3	3	0	13	114	20	65	119	0	331
1999	14	10	7	3	57	499	62	168	101	0	887
2000	12	8	6	2	24	39	229	211	143	0	646
2001	16	9	8	1	2	119	92	95	146	0	454
2002	10	5	4	1	10	142	123	83	60	0	418
2003	13	7	5	2	6	219	156	149	147	0	677
2004	8	5	4	1	3	535	44	56	84	0	722
2005	13	8	6	2	10	516	84	124	174	0	908
2006	11	6	4	2	0	159	1	28	111	0	299
2007	4	3	2	1	2	293	27	4	55	0	381
2008	15	3	1	2	4	97	75	70	30	0	276
2009	4	4	3	1	2	168	26	5	84	0	285
2010	9	5	5	0	0	55	0	6	87	0	148
2011	17	11	8	3	2	134	26	50	60	0	272
10-Year Average	10	6	4	2	4	232	56	58	89	0	439
2012	23	14	6	8	0	603	20	0	77	1	701

[a] Reported harvest only.

[b] As reported on returned subsistence permits.

Appendix F4.–Personal use and subsistence salmon harvests by year, district and gear types for the Upper Copper River subsistence and personal use fisheries, 1998–2012.

					Reported Harvest				Expanded Harvest					
			Permits		Salmon				Salmon				other species	
Year	District	Gear	Issued	Returned	Chinook	Sockeye	Coho	Total	Chinook	Sockeye	Coho	Total	Steelhead	other
1998	Glennallen	Dip net	272	244	232	7,616	96	7,944	NA	NA	NA	NA	NA	NA
	Glennallen	Fish wheel	738	703	1,519	53,652	411	55,582	1,842	64,463	533	66,838	0	0
	Chitina	Dip net	10,006	9,747	6,583	134,299	2,100	142,982	6,723	137,161	2,145	146,029	0	46
	total		11,016	10,694	8,334	195,567	2,607	206,508	8,565	201,624	2,678	212,867	0	46
1999	Glennallen	Dip net	336	295	306	8,928	131	9,365	NA	NA	NA	NA	NA	NA
	Glennallen	Fish wheel	765	712	2,616	61,971	922	65,509	3,278	77,369	1,121	81,768	0	0
	Chitina	Dip net	9,944	8,966	5,758	137,942	2,070	145,770	5,913	141,658	2,128	149,699	0	34
	total		11,045	9,973	8,680	208,841	3,123	220,644	9,191	219,027	3,249	231,467	0	34
2000	Glennallen	Dip net	464	422	537	8,368	78	8,983	NA	NA	NA	NA	NA	NA
	Glennallen	Fish wheel	787	757	4,245	49,873	433	54,551	4,856	59,497	532	64,885	0	0
	Chitina	Dip net	8,151	7,680	3,007	103,269	3,540	109,816	3,168	107,856	3,657	114,681	0	203
	total		9,402	8,859	7,789	161,510	4,051	173,350	8,024	167,353	4,189	179,566	0	203
2001	Glennallen	Dip net	407	367	299	8,532	25	8,856	NA	NA	NA	NA	NA	NA
	Glennallen	Fish wheel	832	809	3,074	70,585	1,076	74,735	3,553	82,858	1,144	87,555	0	0
	Chitina	Dip net	9,462	8,356	2,803	121,304	2,385	126,492	3,113	132,108	2,720	137,941	0	484
	total		10,701	9,532	6,176	200,421	3,486	210,083	6,666	214,966	3,864	225,496	0	484
2002	Glennallen	Dip net	469	384	409	6,855	142	7,406	470	7,641	148	8,259	0	0
	Glennallen	Fish wheel	662	626	3,015	41,037	382	44,434	3,183	43,209	382	46,774	25	0
	Chitina	Dip net	6,805	5,733	1,745	75,747	1,712	79,204	2,023	85,968	1,934	89,925	0	317
	total		7,936	6,743	5,169	123,639	2,236	131,044	5,676	136,818	2,464	144,958	25	317
2003	Glennallen	Dip net	399	343	318	6,132	58	6,508	345	6,934	58	7,337	1	0
	Glennallen	Fish wheel	613	580	2,077	38,077	392	40,546	2,193	40,073	409	42,675	42	0
	Chitina	Dip net	6,418	5,438	1,644	71,053	2,168	74,865	1,903	80,796	2,533	85,232	0	264
	total		7,430	6,361	4,039	115,262	2,618	121,919	4,441	127,803	3,000	135,244	43	264
2004	Glennallen	Dip net	330	262	273	4,851	76	5,200	310	5,315	112	5,737	3	0
	Glennallen	Fish wheel	626	594	2,893	47,279	465	50,637	3,036	50,195	465	53,696	61	0
	Chitina	Dip net	8,386	6,855	2,108	93,182	2,304	97,594	2,495	107,312	2,860	112,667	0	509
	total		9,342	7,711	5,274	145,312	2,845	153,431	5,841	162,822	3,437	172,100	64	509

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					Reported Harvest				Expanded Harvest					
			Permits		Salmon				Salmon				other species	
Year	District	Gear	Issued	Returned	Chinook	Sockeye	Coho	Total	Chinook	Sockeye	Coho	Total	Steelhead	other
2005	Glennallen	Dip net	363	303	264	6,305	0	6,569	310	7,486	0	7,796	0	0
	Glennallen	Fish wheel	598	557	1,816	54,661	97	56,574	1,919	56,727	154	58,800	19	0
	Chitina	Dip net	8,230	6,937	1,773	106,797	1,562	110,132	2,043	120,013	1,869	123,925	0	478
	total		9,191	7,797	3,853	167,763	1,659	173,275	4,272	184,226	2,023		19	478
2006	Glennallen	Dip net	338	273	266	6,243	10	6,519	335	7,170	10	7,515	0	1
	Glennallen	Fish wheel	646	605	2,178	46,516	200	48,894	2,434	50,540	202	53,176	0	82
	Chitina	Dip net	8,566	6,762	2,071	102,443	1,886	106,400	2,663	123,261	2,715	128,639	0	464
	total		9,550	7,640	4,515	155,202	2,096	161,813	5,432	180,971	2,927	189,330	0	547
2007	Glennallen	Dip net	467	383	432	8,155	28	8,615	496	9,416	28	9,940	0	1
	Glennallen	Fish wheel	707	654	2,674	53,322	203	56,199	2,780	56,298	210	59,288	0	55
	Chitina	Dip net	8,490	7,187	2,388	112,753	1,492	116,633	2,694	125,126	1,742	129,562	0	660
	total		9,664	8,224	5,494	174,230	1,723	181,447	5,970	190,840	1,980	198,790	0	716
2008	Glennallen	Dip net	536	447	445	6,517	35	6,997	496	7,177	35	7,708	0	0
	Glennallen	Fish wheel	650	600	1,793	33,687	447	35,927	1,885	35,980	458	38,323	0	75
	Chitina	Dip net	8,258	6,861	1,690	70,597	2,346	74,633	1,999	81,359	2,711	86,069	0	407
	total		9,444	7,908	3,928	110,801	2,828	117,557	4,380	124,516	3,204	132,100	0	482
2009	Glennallen	Dip net	469	391	342	6,030	8	6,380	394	6,950	19	7,363	0	1
	Glennallen	Fish wheel	621	575	1,988	37,708	186	39,882	2,099	39,899	209	42,207	0	72
	Chitina	Dip net	7,958	6,908	199	81,432	1,452	83,083	214	90,035	1,712	91,961	0	267
	total		9,048	7,874	2,529	125,170	1,646	129,345	2,707	136,884	1,940	141,531	0	340
2010	Glennallen	Dip net	620	510	126	384	0	0	9,970	7,757	0	17,727	0	325
	Glennallen	Fish wheel	701	647	1,360	54,490	228	56,078	1,427	57,717	228	59,372	0	148
	Chitina	Dip net	9,970	7,757	587	116,790	1,592	118,969	700	138,487	2,013	141,200	0	365
	total		11,291	8,914	2,073	171,664	1,820	175,047	12,097	203,961	2,241	218,299	0	838
2011	Glennallen	Dip net	617	530	681	13,034	63	13,778	734	14,454	68	15,256	0	0
	Glennallen	Fish wheel	689	625	1,518	41,009	283	42,810	1,585	45,168	304	47,057	0	164
	Chitina	Dip net	9,217	7,566	924	114,164	1,512	116,600	1,067	128,052	1,702	130,821	0	444
	total		10,523	8,721	3,123	168,207	1,858	173,188	3,386	187,674	2,074	193,134	0	608
2002-2011 10-year Average	Glennallen	Dip net	461	383	356	6,451	42	6,797	1,386	8,030	48	9,464	0	33
	Glennallen	Fish wheel	651	606	2,131	44,779	288	47,198	2,254	47,581	302	50,137	15	60
	Chitina	Dip net	8,230	6,800	1,513	94,496	1,803	97,811	1,780	108,041	2,179	112,000	0	418
	total		9,342	7,789	4,000	145,725	2,133	151,807	5,420	163,652	2,529	171,601	15	510
2012	Glennallen	Dip net	867	699	516	17,860	50	18,426	591	21,198	59	21,848	0	4
	Glennallen	Fish wheel	660	612	1,407	50,269	229	51,905	1,504	55,107	276	56,887	0	112
	Chitina	Dip net	10,016	8,030	496	109,777	1,132	111,405	567	127,143	1,385	129,095	0	267
	total		11,543	9,341	2,419	177,906	1,411	181,736	2,662	203,448	1,720	207,830	0	383

Appendix F5.–Salmon harvest and effort in the Batzulnetas subsistence harvests, 1987–2012.

	Permits				Reported Harvest[a]			
Year	Issued	Returned	Fished	Not fished[b]	Chinook	Sockeye	Coho	Total
1987	0	0	0	0	0	22	0	22
1988	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0	0
1993	1	0	0	0	0	160	0	160
1994	5	0	0	0	0	997	0	997
1995	4	0	0	0	0	16	0	16
1996	0	0	0	0	0	0	0	0
1997	3	0	0	0	0	427	0	427
1998	1	0	0	0	0	582	0	582
1999	1	0	0	0	0	55	0	55
2000	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	62	0	62
2002	1	1	1	0	0	208	0	208
2003	1	1	1	0	0	164	0	164
2004	1	1	1	0	0	182	0	182
2005	1	1	0	1	0	0	0	0
2006	0	NA	NA	NA	0	0	0	0
2007	1	1	1	0	0	1	0	1
2008	1	1	1	0	0	1	0	1
2009	0	0	0	0	1	0	1	2
2010	3	3	3	0	2	106	2	110
2011	3	2	2	0	3	9	3	15
10-Year Average	1	1	1	0	4	67	4	75
2012	3	2	1	1	5	101	5	111

[a] Harvest reported on subsistence permits.

[b] As reported on returned permits.

Appendix F6.–Salmon harvest and effort in Prince William Sound and upper Copper River federal subsistence fisheries, 2002–2012.

	Permits				Reported Harvest[a]			
Year	Issued	Returned	Fished	Not fished[b]	Chinook	Sockeye	Coho	Total
Chitina Subdistrict								
2002	122	89	NA	NA	33	575	0	608
2003	100	82	NA	NA	18	717	70	805
2004	109	83	NA	NA	7	1,215	18	1,240
2005	76	64	27	NA	22	1,265	0	1,287
2006	75	64	29	NA	13	1,379	20	1,412
2007	98	87	74	12	26	929	40	995
2008	82	70	38	0	22	789	74	885
2009	68	62	39	23	8	817	11	836
2010	92	79	38	41	17	2,061	31	2,109
2011	84	68	42	26	13	1,693	8	1,714
5-Year Avg.	85	73	46	20	17	1,258	33	1,308
2012	89	80	33	47	5	865	8	878
Glennallen Subdistrict								
2002	201	162	NA	NA	564	7,950	81	8,595
2003	221	184	NA	NA	554	13,616	152	14,322
2004	262	206	NA	NA	636	17,704	152	18,492
2005	275	224	197	NA	345	19,973	126	20,444
2006	254	220	170	NA	430	16,711	28	17,169
2007	281	238	224	14	569	15,225	34	15,828
2008	270	219	139	0	705	11,347	156	12,208
2009	277	227	170	57	494	11,822	34	12,350
2010	270	236	175	61	300	12,835	64	13,199
2011	280	240	173	67	698	13,774	176	14,648
5-Year Avg.	276	232	176	40	553	13,001	93	13,647
2012	277	244	169	75	370	14,425	142	14,937
PWS/Chugach Subdistrict								
2005	46	45	22	23	0	109	141	250
2006	49	48	23	25	0	150	100	250
2007	33	33	17	16	0	36	68	104
2008	45	45	23	22	0	32	119	151
2009	39	38	22	16	0	46	185	231
2010	52	52	35	17	0	36	68	104
2011	69	55	50	5	0	35	581	616
5-Year Avg.	48	45	29	15	0	37	204	241
2012	66	53	30	23	0	64	392	456
Total federal subsistence harvests								
2002	323	251	NA	NA	597	8,525	81	9,203
2003	321	266	NA	NA	572	14,333	222	15,127
2004	371	289	NA	NA	643	18,919	170	19,732
2005	397	333	246	NA	367	21,347	267	21,981
2006	378	332	222	NA	443	18,240	148	18,831
2007	412	358	315	42	595	16,190	142	16,927
2008	397	334	200	22	727	12,168	349	13,244
2009	384	327	231	96	502	12,685	230	13,417
2010	414	367	248	119	317	14,932	163	15,412
2011	434	368	269	92	715	15,067	790	16,572
5-Year Avg.	397	344	243	70	517	14,843	206	15,566
2012	432	377	232	145	375	15,354	542	16,271

[a] Reported harvest only.
[b] As reported on returned permits.

Appendix F7.–Salmon retained from the commercial harvest for personal use (homepack) by district species, and hear type in Prince William Sound, Copper River and Bering River districts, 1994–2012.

Prince William Sound (drift gillnet, set gillnet, and purse seine)																
		Chinook			Sockeye			Coho			Pink			Chum		
Year	Permits	Seine	Drift gillnet	Set gillnet	Seine	Drift gillnet	Set gillnet	Seine	Drift gillnet	Set gillnet	Seine	Drift gillnet	Set gillnet	Seine	Drift gillnet	Set gillnet
1994	5	0	5	0	0	0	12	0	32	0	0	0	0	0	0	0
1995	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1997	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1998	14	0	18	0	19	28	0	18	0	0	0	0	0	0	4	0
1999	6	0	5	1	18	43	0	13	0	0	0	0	0	0	0	0
2000	9	1	1	0	4	47	0	0	2	0	0	0	0	0	6	0
2001	11	1	6	1	0	46	18	0	20	0	0	0	0	0	2	0
2002	8	0	6	5	0	51	5	0	0	0	0	0	0	0	0	0
2003	14	0	24	0	0	23	0	0	0	0	0	0	0	0	1	0
2004	4	0	0	0	0	129	0	0	0	0	0	0	0	0	1	0
2005	5	0	1	0	0	60	0	0	107	0	0	0	0	0	20	0
2006	7	2	0	0	0	58	0	0	19	0	0	7	0	0	2	0
2007	9	1	7	0	0	63	1	0	13	0	0	7	0	0	1	0
2008	18	3	65	1	0	171	72	0	26	0	0	0	0	0	0	0
2009	16	0	4	0	0	104	7	0	30	0	0	0	0	0	8	0
2010	85	0	51	0	2	1,062	55	51	9	0	0	5	0	0	70	0
2011	78	0	62	2	73	670	268	350	249	0	0	68	0	0	21	0
10-Year Average	24	1	22	1	8	239	41	40	45	0	0	9	0	0	12	0
2012	144	11	76	0	143	2,359	318	78	183	0	83	3,495	0	55	1,197	0

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Copper River District (all drift gillnet)				
Year	Permits	Chinook	Sockeye	Coho
1994	192	751	947	21
1995	318	1,688	0	0
1996	345	2,169	0	0
1997	284	1,243	0	0
1998	309	1,411	1,435	14
1999	297	1,115	1,333	36
2000	245	740	651	0
2001	289	935	2,113	24
2002	247	773	1,138	187
2003	287	1,073	4,077	0
2004	174	539	525	2
2005	228	760	1,785	119
2006	264	779	1,539	137
2007	280	1,019	2,023	340
2008	223	537	2,172	423
2009	328	876	6,528	767
2010	333	906	7,064	1,026
2011	336	1,282	9,070	543
10-Year Average	270	2,223	1,973	354
2012	378	853	7,985	543

Bering River District (all drift gillnet)				
Year	Permits	Chinook	Sockeye	Coho
1994	3	12	0	0
1995	5	11	0	0
1996	7	31	0	0
1997	1	3	0	0
1998	5	7	0	0
1999	2	2	20	102
2000	1	3	0	0
2001	2	2	0	0
2002	1	1	0	0
2003	6	6	52	0
2004	2	0	1	10
2005	2	2	0	0
2006	4	9	6	0
2007	2	2	0	0
2008	4	9	6	0
2009	1	0	0	20
2010	5	0	0	82
2011	1	0	0	10
10-Year Average	3	5	9	12
2012	4	1	0	155

Appendix F8.–Area E commercial homepack and subsistence harvests by permit holder community of residence, 2012.

	Commercial Homepack[a]						
Community	Permits	Chinook	Sockeye	Coho	Pink	Chum	Total
ANCHOR POINT	1		59		1	5	65
ANCHORAGE	21	30	508	29	4		571
BIG LAKE	1		2				2
CIRCLE CITY	1		2				2
COPPER CENTER	1	1					1
CORDOVA	205	625	5,524	627	929	60	7,765
DELTA JUNCTION	6	8	123	74	47		252
EAGLE RIVER	2	1	20		60	123	204
FAIRBANKS	2	5	221		596	43	865
GIRDWOOD	6	1	116	1	136	4	258
HOMER	38	37	577	75	143	703	1,535
HOONAH	2	1	18				19
KASILOF	1	1	37				38
KENAI	1		21				21
MOOSE PASS	2	4	35				39
NAKNEK	1		27				27
NIKOLAEVSK	2		13	67			80
PALMER	2	1	37				38
PETERSBURG	2		26	10			36
SEWARD	9	13	67	6	57	89	232
SOLDOTNA	3	7	5			8	20
SUTTON	2	2	22				24
VALDEZ	8	9	72	1	381	14	477
WASILLA	13	15	456	3	453	92	1,019
WHITTIER	1		66				66
WILLOW	3	1	91	1		20	113
USA Balance	93	163	2,515	404	822	134	4,038
Unknown	6	15	145				160
Total	435	940	10,805	1,298	3,629	1,295	17,967

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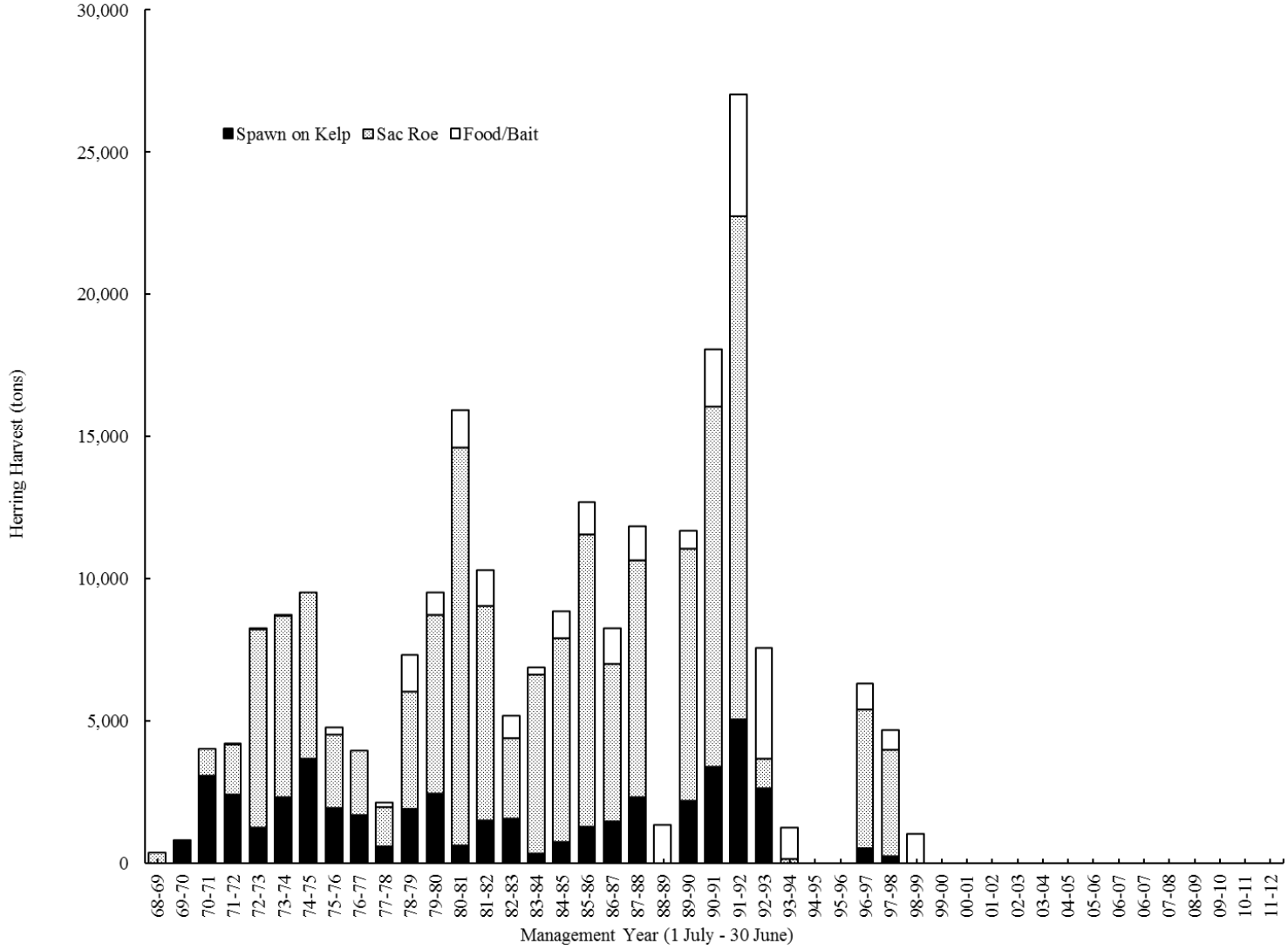
	Area E Subsistence[b]						
Community	Permits	Chinook	Sockeye	Coho	Pink	Chum	Total
Anchorage	45	9	244	0	0	16	269
Big Lake	1	0	0	0	0	0	0
Chenega Bay	12	0	603	20	0	77	700
Chenga Bay	1	0	0	0	0	0	0
Chugiak	2	0	30	0	0	0	30
Cooper Landing	1	0	0	0	0	0	0
Cordova	295	199	3,433	0	0	0	3,632
Delta Jct	1	0	0	0	0	0	0
Delta Junction	2	15	0	75	0	0	90
Eagle River	2	0	30	0	0	0	30
Fairbanks	1	0	0	0	0	0	0
Girdwood	2	0	19	0	0	0	19
Homer	13	6	235	0	0	6	247
Hope	1	5	10	0	0	0	15
Juneau	1	1	20	0	0	0	21
Kodiak	1	0	0	0	0	0	0
Manley Hot Springs	1	0	0	0	0	0	0
North Pole	1	0	0	0	0	0	0
Northway	1	0	0	0	0	0	0
Palmer	5	0	0	0	0	6	6
Seward	3	2	34	0	0	0	36
Soldotna	1	0	0	0	0	0	0
Sutton	1	0	1	0	0	6	7
Talkeetna	1	0	0	0	0	0	0
Tatitlek	6	3	654	0	0	0	657
Valdez	3	4	159	0	0	0	163
Wasilla	10	8	169	0	0	6	183
Willow	1	0	0	0	0	0	0
Total	415	252	5,641	95	0	117	6,105

[a] Homepack fish are defined in 5 AAC 39.010 as finfish retained from lawfully taken commercial catch for that fisherman's own use.

[b] Combined harvests from the Copper River District, Tatitlek, Chenega, and Prince William Sound subsistence areas. Includes permit holders who reported not or unsuccessful fishing.

APPENDIX G

Appendix G1.–Prince William Sound commercial Pacific herring harvest by management year and fishery, 1968–2012.



Appendix G2.–Pacific herring sac roe purse seine fishery effort, anticipated harvest, and actual harvest, 1969–2012.

		Purse seine fishery					
Calendar year	Opening dates	Hours	Effort (boats)	Guideline harvest [a]	Harvest (tons)	CPUE (tons/boat hr)	Estimated roe %
1969	03/01–06/30		5		325.4		
1970	03/01–06/30						
1971	03/01–06/30		12		919.2		
1972	03/01–06/30		18		1,777.2		
1973	04/23–05/09		31		6,991.9		
1974	04/10–04/17		72		6,371.0		
1975	04/15–04/22	14.0	76		5,853.8	5.50	
1976	05/08 & 06/01	13.0	66		2,584.2	3.01	
1977	04/09–04/10	38.0	58		2,265.6	1.03	
1978	04/17–04/21 [b]	106.0	75	5,000	1,329.5	0.17	
1979	04/07–04/19	215.5	89	5,000	4,138.0	0.22	
1980	04/01–04/09	162.0	76	5,000	6,042.2	0.49	
1981	04/01–04/09	60.0	106	5,000	13,768.2	2.16	
1982	04/23	2.0	95	5,000	7,148.3	37.62	10–14%
1983	04/13	1.0	103[c]	5,000	2,728.5	26.49	11.0%
1984	04/14	3.0	105[d]	5,000	5,946.1	18.88	10–11%
1985	04/28–04/29	4.0	103[e]	5,000	6,764.1	16.42	10–12%
1986	04/17	3.0	106	5,000–7,000	9,828.1	30.91	11.0%
1987	04/08–04/09	1.5	96	3,000–5,000	4,982.2	34.60	10.0%
1988	04/21–04/22	2.0	105	4,000–5,000	7,977.3	37.99	10.5%
1989	Season closed [f]			6,400			
1990	04/12	0.3	96	6,038	8,362.1	290.35	10.0%
1991	04/09, 04/10, & 04/19	1.3	104	11,233	11,923.0[g]	85.32	10.5%
1992	04/13, 04/17, & 04/21	2.0	104	14,100	16,784.2[h]	80.69	10.0%
1993	No harvest			15,586			
1994	Season closed [i]			0	151.0[j]		
1995	Season closed [i]			0			
1996	Season closed [i]			0			
1997	04/13,04/15	1.8	71	2,965	4,703.5	36.80	9.75%
1998	04/06	0.5	46	3,367	3,329.7	144.77	9.6%
1999	Season closed [k]			3,447			
2000–2012	Season closed [l]						

-continued-

[a] Guideline harvest based on preseason harvest projection beginning in 1986.
[b] An additional opening on 6/14 for 6 hours resulted in no harvest.
[c] Of 103 permit holders participating, 72 made deliveries.
[d] Of 105 permit holders participating, 101 made deliveries.
[e] Of 103 permit holders participating, 62 made deliveries at Montague Island and 90 made deliveries in the north-shore area.
[f] All herring commercial fisheries in PWS were closed during spring 1989 because of the potential for contamination from the *T/V Exxon Valdez* oil spill.
[g] Total for 1991 includes a 92.2 ton test fishing set made by ADF&G for aerial survey calibration.
[h] Total for 1992 includes a 192.5 ton test fishing harvest made by ADF&G for aerial survey calibration.
[i] Season closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.
[j] Harvest for 1994 consisted of a single test fishing harvest made by ADF&G for aerial survey calibration.
[k] Because no significant biomass was located, the season was cancelled on 20 April.
[l] The 2000–2012 seasons were closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

Appendix G3.–Pacific herring sac roe drift gillnet fishery effort, anticipated harvest, and actual harvest, 1974–2012.

		Drift gillnet fishery					
Calendar year	Opening dates	Hours	Effort (boats)	Guideline harvest [a]	Harvest (tons)	CPUE (tons/boat hr)	Estimated roe %
1974	04/10–04/17		3		3.8		
1975	04/15–04/22	14.0					
1976		13.0					
1977	04/09–04/10	38.0	1		1.6	0.04	
1978 [b]	04/17–04/21	106.0	38		61.7	0.02	
1979	Season closed [c]						
1980	04/17–05/05		16		264.4		
1981	04/16–04/18	53.0	18		234.5	0.25	
1982	04/24–04/26	54.0	18		393.9	0.41	12–15%
1983	04/21–04/22	24.0	22		105.4	0.20	11.0%
1984	04/18–04/22	59.0	23	250	342.7	0.25	8–14%
1985	04/29–05/01	34.0	21	250	413.3	0.58	10–12%
1986	04/24–04/28	90.0	24	300–400	448.6	0.21	11.4%
1987	04/10–04/11	24.0	24	200–300	533.3	0.93	9.5%
1988	04-23	5.5	24	275	353.0	2.67	10.0%
1989	Season closed [d]			375			
1990	04/13	4.0	24	353	505.4	5.26	10.6%
1991	04/18	10.5	24	657	742.0	2.94	11.06%
1992	04/23–04/24	11.0	24	825	940.6	3.56	10.8%
1993	04/15, 04/17-04/19	36.0	24	912	1,029.9	1.19	11.01%
1994	Season closed [e]			0			
1995	Season closed [e]			0			
1996	Season closed [e]			0			
1997	04/09	2.5	22	175	175.7	3.19	8.00%
1998	04/11, 04/12	6.5	20	197	415.1	3.19	11.0%
1999	Season closed [f]			202			
2000–2012	Season closed [g]			0			

[a] Guideline harvest based on preseason harvest projection beginning in 1986.

[b] An additional opening on 6/14 for 6 hours resulted in no harvest.

[c] Drift gillnet fishery closed by Alaska Board of Fisheries action.

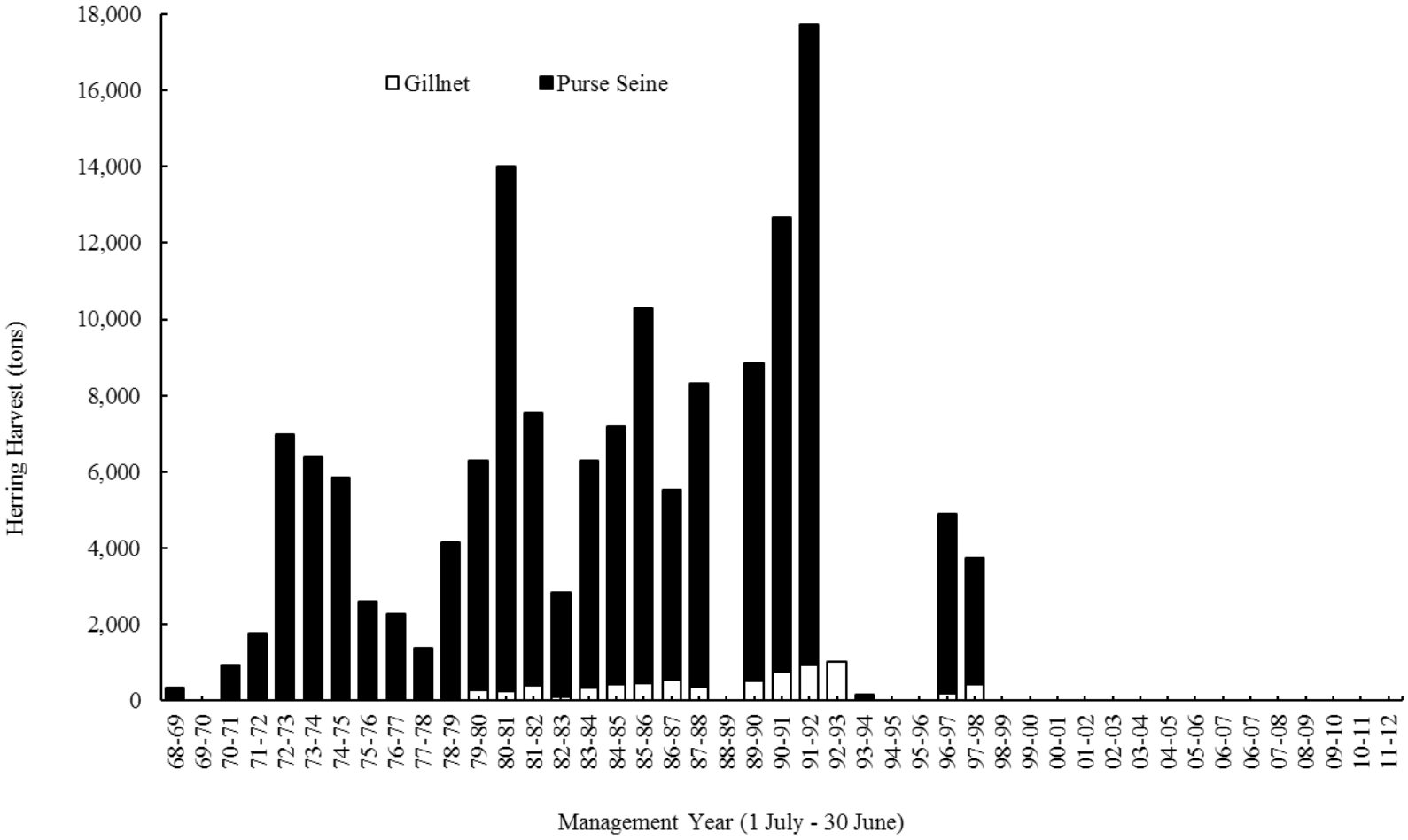
[d] All commercial herring fisheries in PWS were closed during spring 1989 because of the potential for contamination from the *T/V Exxon Valdez* oil spill.

[e] Season closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

[f] Because no significant biomass was located, the season was cancelled on 20 April.

[g] The 2000–2012 seasons were closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

Appendix G4.–Prince William Sound commercial Pacific herring sac roe purse seine and gillnet harvest by management year, 1968–2012.



Appendix G5.–Pacific herring pound spawn-on-kelp fishery harvest, 1979–2012.

Calendar year	Fishery dates [c]	Effort: CFEC permits [d]	Effort: Permits committed [e]	Effort: Producing permits [a]: Closed [f]	Effort: Producing permits [a]: Open [g]	Guideline harvest (tons)	Blades per permit holder: Closed [f]	Blades per permit holder: Open [g]	Spawn-on-kelp harvest (tons): Ribbon	Spawn-on-kelp harvest (tons): Macrocystis	Spawn-on-kelp harvest (tons): Total	Herring utilized [b] (tons)
1979		2	0									
1980	04/14	14	4	2		8			0.9	0.4	1.3	16.6
1981	04/14	18	18	7		16			8.6	1.1	9.7	120.7
1982	04/29–05/10	25	20	18		26			25.1	0.5	25.5	319.2
1983	04/30–05/04	47	38	26		26			17.7	10.1	27.7	346.7
1984	04/24–05/08	65	45	37		26			6.4	18.8	25.2	315.1
1985	04/25–05/07	81	59	50		40			12.1	28.1	40.2	502.1
1986	04/21–04/28	104	82	81		60			0	72.2	72.2	903.0
1987	04/10–04/21	111	111	108		85			0	61.2	61.2	765.1
1988	04/12–04/23	122	122	119		85			0	123.2	123.2	1,540.5
1989	Season closed [h]											
1990	04/11–04/26	128	128	122		118			0	98.8	98.8	1,235.3
1991	04/07–04/20	126	126	119		220	1,200		0	202.4	202.4	2,530.5
1992	04/07–04/24	127	127	127		276	1,770		0	242.2	242.2	3,027.7
1993	04/10–04/22	128	124	52		305	1,950		0	106.4	106.4	1,330.5
1994	Season closed [i]											
1995	Season closed [i]											
1996	Season closed [i]											
1997	04/10–05/06	128	116	7	84	725	410	640	0	34.3	34.3	290.5
1998	04/04, 04/05, 04/09, 04/13 [j]	128	36	13	20	823	425	660	0	10.7	10.7	104.3
1999	04/01, 04/20 [k]	128	27	7	2	843	435	680	0	6.2	6.2	48.8
2000–2012	Season closed [l]											

-continued-

[a] Number of permits successful in producing product. Because of group cooperation, production is often reported for some individuals whose pounds did not produce product.

[b] The equivalent harvest of herring due to stress mortality and the removal of reproductive capacity from the population based on the assumption that 12.5 tons of herring are used to produce each ton of spawn-on-kelp product.

[c] Dates that the fishery was opened to purse seines for the capture and placement of herring into pounds.

[d] Prior to 1994, commissioner's permits issued to applicants registering before the March 1 deadline. After 1994, the number of permits represents limited entry permits. Beginning in 1997 permit holders could operate pounds in open or closed configuration, but were required to state intended configuration prior to season.

[e] The number of individuals receiving an equal allocation of the guideline harvest. Prior to 1994 this represents the number of individual pounds constructed by the April 1 deadline. Beginning in 1997, this number represents permit holders stating intended configuration prior to season.

[f] A pound fished in a closed configuration consists of a rectangular floating frame with webbing suspended below, that encloses herring and kelp for period of time during spawning.

[g] A pound fished in an open configuration consists of a rectangular floating frame with either no webbing suspended below, or with webbing that permits volitional entry and exit of herring on at least one side.

[h] All herring commercial fisheries in Prince William Sound were closed spring 1989 because of the potential for contamination from the *T/V Exxon Valdez* oil spill.

[i] Season closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

[j] Opening dates for each area were: Montague Island 4/04, Eastern 4/05, Northern 4/09, and Southeastern 4/13. All areas closed by regulation on 12/31/1998.

[k] Opening dates for each area were: Montague Island 04/01, St. Matthews Bay 04/20. All areas closed by emergency order on 04/25/1999.

[l] The 2000–2012 seasons were closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

Appendix G6.–Natural spawning pacific herring spawn-on-kelp harvests in pounds and tons, 1969–2012.

Calendar year	Fishery dates	Hours	Effort (no. of divers)	Guideline harvest (tons)	Spawn-on-kelp harvest		Herring utilized [a] (tons)
					lbs	tons	
1969	05/18–05/31		3		5,424	2.7	21.7
1970	04/19–06/06		34		190,374	95.2	761.5
1971	04/18–05/15		159		769,481	384.7	3,077.9
1972	04/30–05/20		397		600,453	300.2	2,401.8
1973	04/23–05/26		176		306,358	153.2	1,225.4
1974	04/22–05/04		143		580,588	290.3	2,322.4
1975	04/25–05/10		328		916,919	458.5	3,667.7
1976	04/21– ?		279		485,043	242.5	1,940.2
1977	04/27–12/31		104		417,000	208.5	1,668.0
1978	04/20–04/30		66	165	141,268	70.6	565.1
1979	04/25–05/03		97	200	474,242	237.1	1,897.0
1980	04/23–04/30	10	458	200	603,880	301.9	2,415.5
1981	04-25	12	196	200	122,532	61.3	490.1
1982	05/05–05/08	73	152	187	291,430	145.7	1,165.7
1983	04/27	12	185	187	298,362	149.2	1,193.4
1984	Season Closed [b]		225 [c]	187			
1985	05/06 & 05/08	20	106	169	60,832	30.4	243.3
1986	04/30–05/03	86	29	142	95,205	47.6	380.8
1987	04/15–04/17	44	59	103	176,485	88.2	705.9
1988	04/29 & 04/30	12	159	103	194,762	97.4	779.0
1989	Season Closed [d]			110			
1990	04/21–04/22	16	134	104	237,575	118.8	950.3
1991	05/11–05/17	95	48	195	215,147	107.6	860.8
1992	04/24–04/30	101	217	243	504,663	252.3	2,018.7
1993	04/19–04/24	114	83	268	325,181	162.6	1,300.7
1994	Season Closed [e]			110			
1995	Season Closed [e]						
1996	Season Closed [e]						
1997	04/25 & 04/26	26.4	45	56.4	52,800	26.4	211.2
1998	04/22 - 04/27	62	35	464	34,695	17.3	138.8
1999	Season Closed [e]			475			
2000-2012	Season Closed [e]						

-continued-

[a] Indicates the annual removal of reproductive capacity from the population based on the assumption that average fish roe recovery is 10%, and 80% of spawn-on-kelp harvest weight consists of eggs.

[b] Season remained closed due to lack of suitable spawn.

[c] Permits issued.

[d] All herring commercial fisheries in Prince William Sound were closed spring 1989 because of the potential for contamination of catches from the *T/V Exxon Valdez* oil spill.

[e] Season closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

Appendix G7.–Natural spawning pacific herring spawn-on-kelp harvests by kelp species, 1969–2012.

Calendar year	Fishery dates	Hours	Effort (no. of divers)	Guideline harvest (tons)	Harvest by kelp species and grounds price ($/lb)							
					Ribbon		Sieve		Fucus		Other	
					%	Price	%	Price	%	Price	%	Price
1969	05/18–05/31		3									
1970	04/19–06/06		34									
1971	04/18–05/15		159									
1972	04/30–05/20		397									
1973	04/23–05/26		176									
1974[a]	04/22–05/04		143									
1975	04/25–05/10		328									
1976	04/21– ?		279									
1977	04/27–12/31		104									
1978	04/20–04/30		66	165	23%		50%				27% [b]	
1979	04/25–05/03		97	200								
1980	04/23–04/30	10	458	200	60%	$1.25	40%	$0.85				
1981	04-25	12	196	200	38%	$1.25	60%	$0.85			2% [b]	$0.60
1982	05/05–05/08	73	152	187	83%	$1.42	11%	$0.95			6% [b]	$0.74
1983	04/27	12	185	187	51%	$2.00–2.45	35%	$1.50–1.70			14% [c]	
1984	Season closed [d]		225[e]	187								
1985	05/06 & 05/08	20	106	169	51%	$1.25	49%	$0.50				
1986	04/30–05/03	86	29	142	97%	$1.75		$0.80			[b]	$0.80
1987	04/15–04/17	44	59	103	90%	$1.70		$0.85			[b]	$0.80
1988	04/29 & 04/30	12	159	103	64%	$1.50	24%	$0.75–1.00			12% [b]	$0.75–1.00
1989	Season closed [f]			110								
1990	04/21–04/22	16	134	104	37%	$0.99	6%	$0.52			57% [b]	$0.88
1991	05/11–05/17	95	48	195					100%	$0.75–0.85		
1992	04/24–04/30	101	217	243	21%	$0.70			76%	$0.40	3%	
1993	04/19–04/24	114	83	268					100%	$0.55		
1994	Season closed [g]			110								
1995	Season closed [g]											
1996	Season closed [\g]											
1997	04/25 & 04/26	26.4	45	56.4					100%			
1998	04/22–04/27	62	35	464	16%	$0.80			84%	$0.50		
1999	Season closed [g]			475								
2000–2012	Season closed [g]											

-continued-

[a] Mostly ribbon with some sieve and hair $0.60–0.75.

[b] Hair kelp.

[c] Mostly *Macrocystis.* Some hair kelp.

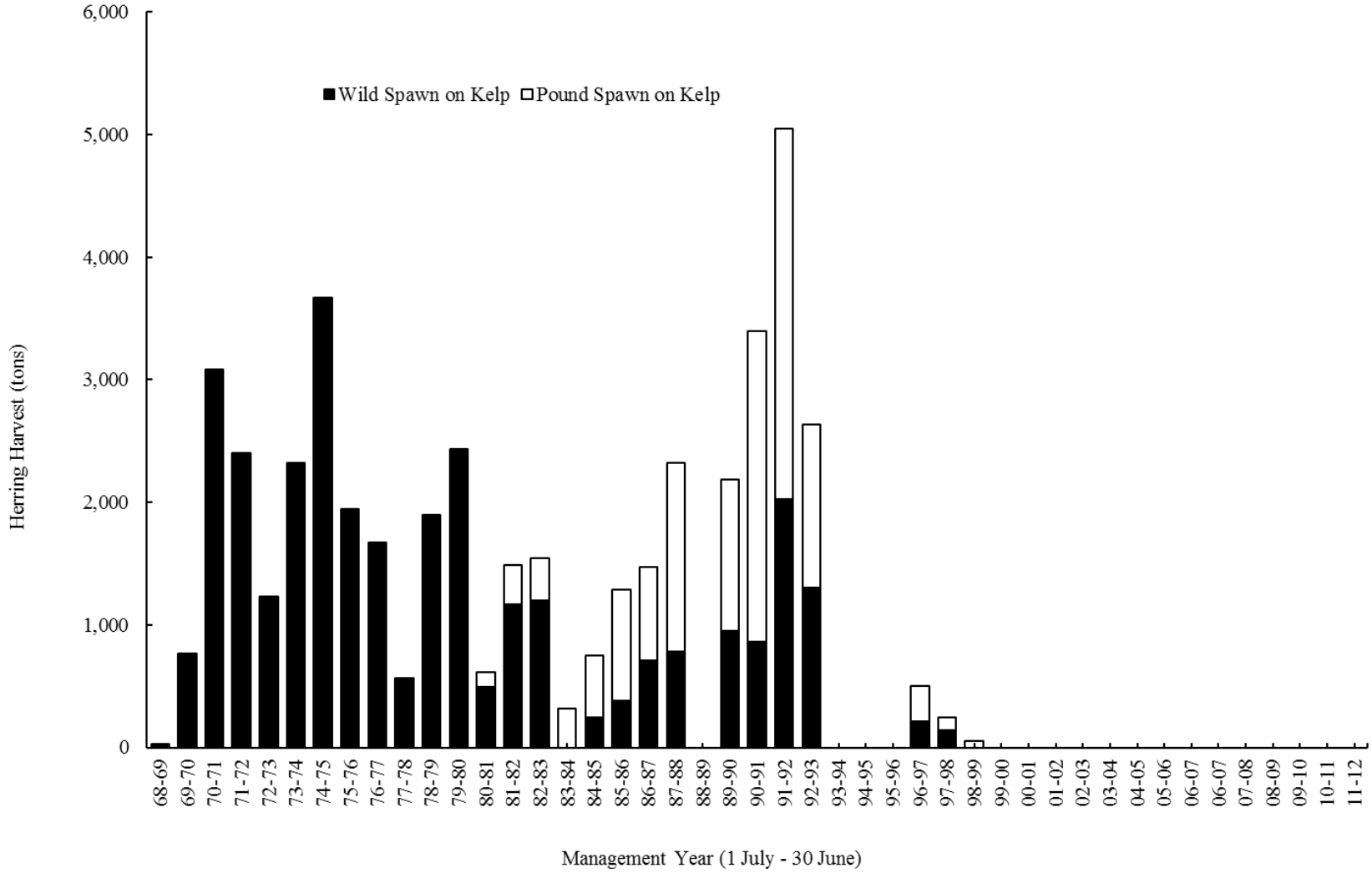
[d] Season remained closed due to lack of suitable spawn.

[e] Permits issued.

[f] All herring commercial fisheries in Prince William Sound were closed spring 1989 because of the potential for contamination of catches from the *T/V Exxon Valdez* oil spill.

[g] Season closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

Appendix G8.–Prince William Sound commercial spawn-on-kelp Pacific herring usage by management year, 1968–2012.



Appendix G9.–Prince William Sound commercial Pacific herring food/bait fishery effort and harvests, management years 1969–2012.

Harvest management year	Fishing dates		Guideline harvest	Purse seine		Pair trawl		Mid-water trawl		Otter trawl		Total harvest
	Opened	Closed	(tons)	Effort (boats)	Harvest (tons)	Effort (boats)	Harvest (tons)	Effort (boats)	Harvest (tons)	Effort (boats)	Harvest (tons)	(tons)
1969–1970	10/01/69	06/30/70 [a]		-	14.0							14.0
1970–1971	10/01/70	06/30/71 [a]										0
1971–1972	10/01/71	06/30/72 [a]		-	20.0							20.0
1972–1973	10/01/72	05/09/73 [a]		-	9.0							9.0
1973–1974	08/27/73	04/17/74 [a]	[b]	-	8.5							8.5
1974–1975	07/15/74	03/10/75	[b]									0
1975–1976	06/01/75	06/25/75 [c]	[b]	4	226.7							226.7
1976–1977	02/01/77	03/09/77	[b]									0
1977–1978	10/01/77	02/28/78	[b]	-	17.0	-	145.3					162.3
1978–1979	10/16/78	? [d]	[b]	-	195.4	7	988.7	-	9.4	-	81.0	1,274.4
1979–1980	09/16/79	02/28/80 [e]	1,400	-	510.8	4	145.1	-	103.2	-	2.6	761.7
1980–1981	09/15/80	11/07/80	1,400	-	1,030.4	6	275.7					1,306.1
1980–1982	09/15/81	09/30/81	1,400	7	1,189.4	-	73.1					1,262.5
1982–1983	09/15/82	01/31/83	1,400	6	797.3							797.3
1983–1984	09/15/83	01/31/84	1,400	-	257.6							257.6
1984–1985	09/15/84	01/31/85	1,400	-	936.2							936.2
1985–1986	09/01/85	02/15/86	1,400	6	1,118.1							1,118.1
1986–1987	09/01/86	10/24/86	1,400	6	1,276.2							1,276.2
1987–1988	09/02/87	11/12/87 [f]	1,400	7	1,189.4							1,189.4
1988–1989	11/01/88	11/05/88	1,400	8	1,335.3							1,335.3
1989–1990	11/01/89	01/31/90	1,694	-	646.1							646.1
1990–1991	09/21/90	11/24/90 [g]	3,151	5	1,955.0			-	60.8			2,015.9
1991–1992	10/01/91	10/14/91	3,956	14	4,258.5							4,258.5
1992–1993	10/01/92	10/22/92	3,416[h]	17	3,900.3							3,900.3
1993–1994	10/07/93	10/10/93	978[i]	8	1,087.0							1,087.0
1994–1995	Season closed [j]											0
1995–1996	Season closed [j]											0
1996–1997	11/01/96	11/03/96	825	6	933.9							933.9
1997–1998 [k]	11/1/97, 02/19/98	02/28/98	945	12	679.7							679.7
1998–1999	11/02/98	11/04/98, 11/06/98	967	11	[l] 1,003.3	-	-					1,003.3
1999-2012	Season closed [j]											

-continued-

[a] Openings set by regulation. Ending date coincides with regulatory ending of sac roe season.

[b] No official quota, but unofficial goal was 1,500 tons.

[c] Harvest from special June food-and-bait fishery opening. Although this harvest actually occurred at the end of the 1975 management year, it is included in the 1976 harvest management year to be consistent with other food-and-bait harvests that occur after spring sac roe fisheries.

[d] Fishery closed from 1 January to 6 January 1979.

[e] Fishery closed from 1 January to 15 February 1980.

[f] Fishing season opened by regulation on September 1, 1987 in the District. The north-shore and east-shore herring districts opened on September 23. The season was closed by emergency order on October 6 for a period of 5 weeks, reopened on November 9, and closed for the duration of the 1987/19888 season on November 12, 1987.

[g] Fishery open from September 21 until November 24. The Montague Island area was open from September 24 until November 24.

[h] Preseason guideline harvest level based on spawn deposition biomass estimate. Final guideline harvest based on age-structured analysis was issued in January 1993 and was 4,373 tons.

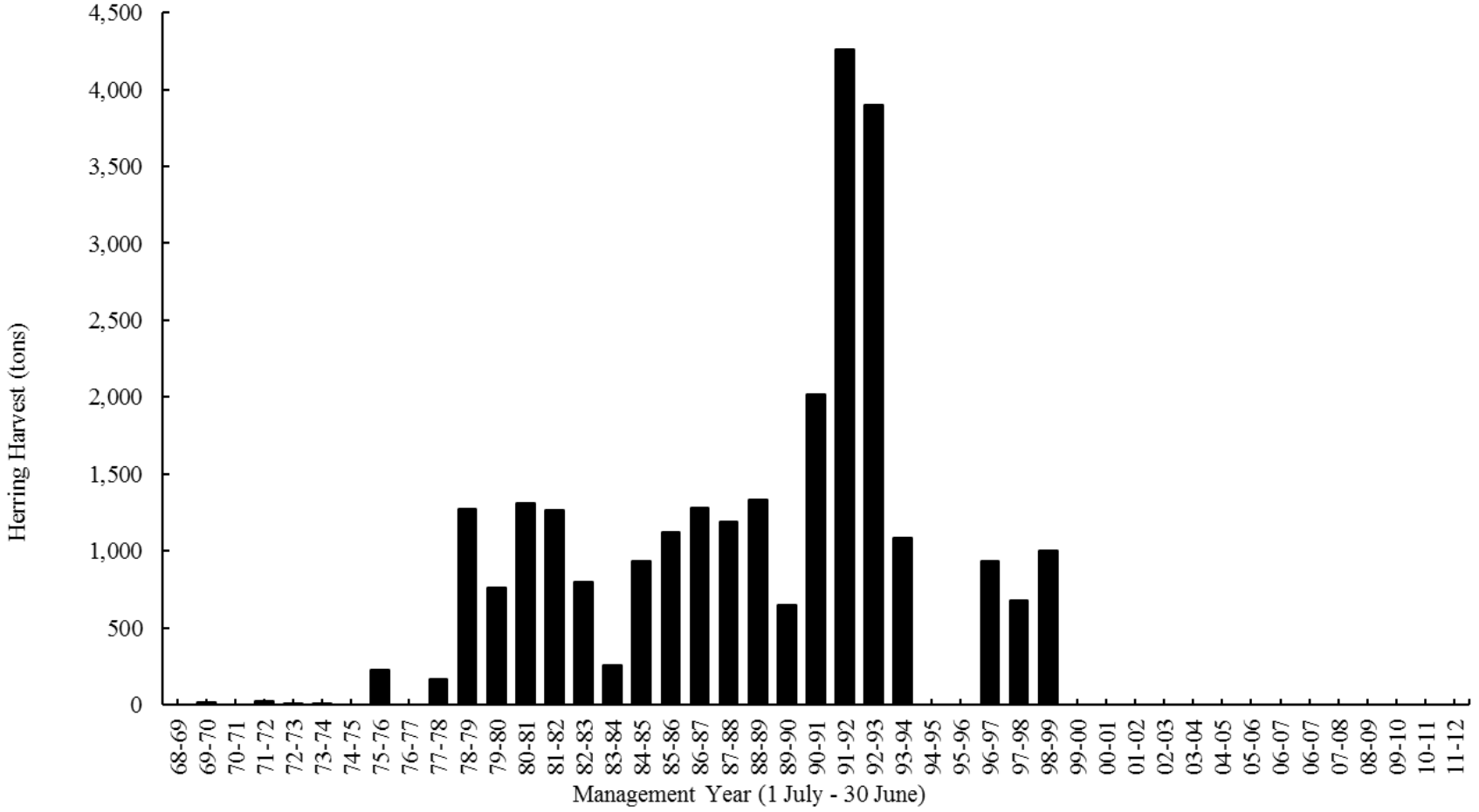
[i] Preseason guideline harvest level based on preliminary aerial survey biomass estimate of 40,000 tons.

[j] Season closed because the herring biomass was forecast to be less than the 22,000 ton spawning biomass threshold.

[k] Season reopened in spring 1998 based on final age structured assessment modeling. Of the total harvest, 578.1 tons were taken in November 1997 and 101.6 tons were taken in February 1998.

[l] Includes sale from ADF&G test fishing near Knowles Head, October 31 1998.

Appendix G10.–Prince William Sound commercial food/bait Pacific herring harvest, management years 1968–2012.



Appendix G11.–Mean price and estimated exvessel value of the commercial Pacific herring harvest by gear type based on verbal postseason estimates from processors and permit holders, 1978–2012.

	Sac roe fisheries				Spawn on kelp fisheries				Food-and-bait fishery		
	Purse seine		Drift gillnet		Wild spawn on kelp		Pounds		Mixed gear		
Calendar year	Price per ton	Total value	Price per ton	Total value	Price per lb	Total value	Price per lb [a]	Total value	Price per ton	Total value	TOTAL VALUE
1978	720	956,800			1.25	175,000			380	489,820	1,621,700
1979	1,260	5,213,880			1.74	821,280			300	196,800	6,231,960
1980	320	1,933,760			1.09	667,080			300	424,800	3,025,640
1981	400	5,508,000	580	135,720	1.00	122,000			260	328,120	6,093,840
1982	380	2,716,240	640	251,520	1.29	397,320			220	194,260	3,559,340
1983	600	1,634,400	1,040	109,200	2.10	634,200			260	70,980	2,448,780
1984	760	4,435,360	640	218,880	NO HARVEST		3.50	176,439	260	265,460	5,096,139
1985	760	5,380,800	900	371,700	0.48	19,200	7.09	569,058	250	279,500	6,620,258
1986	820	8,058,960	920	412,160	1.70	159,800	8.00	1,155,200	180	229,680	10,015,800
1987	1,100	5,480,200	960	511,680	1.70	299,200	15.00	1,836,000	300	356,700	8,483,780
1988	840	6,600,000	1,400	537,000	1.20	232,000	18.00	4,500,000	300	400,590	12,236,500
1989		SEASON CLOSED							300	193,830	193,830
1990	640	5,351,744	640	323,456	0.90	213,840	11.40	2,305,080	300	605,130	8,799,250
1991	600	7,153,800	600	445,200	0.80	172,160	9.00	2,880,000	250	1,064,625	11,715,785
1992	400	6,713,680	800	752,480	0.46	232,116	8.00	3,875,200	200	780,060	12,353,536
1993		NO HARVEST	400	411,960	0.55	178,860	10.00	2,000,000	200	217,400	2,808,220
1994					SEASON CLOSED						
1995					SEASON CLOSED						
1996		SEASON CLOSED							200	187,000	187,000
1997	200	940,600	80	14,080	0.61	32,000	8.00	426,816	250	170,000	1,583,496
1998	300	999,000	375	156,000	0.65	23,000	5.00	107,000	295	296,000	1,581,000
1999		SEASON CLOSED					8.00	99,000	SEASON CLOSED		
2000					SEASON CLOSED						
2001					SEASON CLOSED						
2002					SEASON CLOSED						
2004					SEASON CLOSED						
2005					SEASON CLOSED						
2006					SEASON CLOSED						
2007					SEASON CLOSED						
2008					SEASON CLOSED						
2009					SEASON CLOSED						
2010					SEASON CLOSED						
2011					SEASON CLOSED						
2012					SEASON CLOSED						

[a] The price per pound for spawn on kelp in pounds is based on the final product weight, not harvest weight.

Appendix G12.–Annual Pacific herring biomass indices for harvest management years 1973–2012.

	Total spring	Aerial survey estimates				Unexploitated esc. biomass	Pre-fishery run biomass	Observed peak acoustic biomass estimates		
Harvest Year	Use and harvest mortality [a] (tons)	Peak biomass estimate [b] (tons)	Maximum possible observed biomass [c]	Miles of spawn [d]	Mile days of spawn [e]	ASA [f] (tons)	ASA [f] (tons)	Fall (tons)	Spring (tons)	Prior year forecast (tons)
1973–1974	6,375	41,080	107,290	38.5	96.0	ND	ND	ND	ND	ND
1974–1975	5,854	ND	ND	34.2	54.0	ND	ND	ND	ND	ND
1975–1976	2,584	7,330	25,247	32.8	41.2	ND	ND	ND	ND	ND
1976–1977	2,267	16,830	17,460	39.3	78.2	ND	ND	ND	ND	ND
1977–1978	1,391	13,410	36,540	28.7	50.8	ND	ND	ND	ND	ND
1978–1979	4,138	42,100	107,390	54.5	89.0	ND	ND	ND	ND	ND
1979–1980	6,323	62,110	122,050	50.5	95.5	61,065	66,217	ND	ND	ND
1980–1981	14,124	77,810	161,690	85.4	144.0	63,662	77,050	ND	ND	ND
1981–1982	7,861	68,790	97,620	49.0	85.5	58,404	65,941	ND	ND	ND
1982–1983	3,181	41,850	107,710	67.4	93.5 [g]	68,429	71,209	ND	ND	ND
1983–1984	6,604	58,870	158,760	60.1	104.8	81,745	87,637	ND	ND	ND
1984–1985	7,679	20,830	60,954	101.2	156.7	103,293	110,453	ND	ND	ND
1985–1986	11,180	15,180	54,820	72.4	146.8	84,859	95,435	ND	ND	ND
1986–1987	6,281	26,530	52,192	65.3	186.8	87,978	93,244	ND	ND	ND
1987–1988	9,871	34,270	67,175	166.3	269.8	117,925	126,918	ND	ND	43,992
1988–1989	[h]	56,915	186,708	98.4	228.1	124,043	124,043	ND	ND	54,899
1989–1990	10,103	57,900	145,013	94.1	164.4	95,193	105,317	ND	ND	51,692
1990–1991	15,196	42,765	141,375	58.0	71.5	72,650	86,769	ND	ND	96,666
1991–1992	20,752	53,835	130,569	74.7	119.8	77,450	95,969	ND	ND	121,342
1992–1993	2,360	20,725	109,865	20.4	50.3	30,461	32,508	ND	ND	134,133
1993–1994	151	19,640	154,008	14.6	23.1	15,826	15,826	20,998	ND	29,787
1994–1995	0	7,113	20,868	20.4	28.2	16,799	16,799	13,840	14,639	19,009
1995–1996	0	10,691	37,771	27.2	37.3	22,850	22,850	26,776	25,346	24,332
1996–1997	5,170	10,858	57,114	42.7	64.3	28,182	32,517	3,086	44,083	37,599
1997–1998	3,849	13,817	50,124	38.7	62.0	24,638	28,072	ND	19,456	38,640
1998–1999	49	6,366	10,872	25.4	40.7	20,904	20,954	ND	22,397	39,557
1999–2000	0	1,610	2,889	19.5	31.7	16,009	16,009	ND	8,024	23,987

-continued-

	Total spring	Aerial survey estimates				Unexploitated esc. biomass	Pre-fishery run biomass	Observed peak acoustic biomass estimates		
Harvest Year	Use and harvest mortality [a] (tons)	Peak biomass estimate [b] (tons)	Maximum possible observed biomass [c]	Miles of spawn [d]	Mile days of spawn [e]	ASA [f] (tons)	ASA [f] (tons)	Fall (tons)	Spring (tons)	Prior year forecast (tons)
2000–2001	0	587	1,075	16.0	14.8	10,768	10,768	ND	7,035	NA
2001–2002	0	646	1,433	21.5	23.6	12,665	12,665	ND	11,791	NA
2002–2003	0	5,600	8,951	25.2	26.1	17,930	17,930	ND	29,864	NA
2003–2004	0	12,305	17,650	29.7	30.4	22,598	22,598	ND	21,046	NA
2004–2005	0	4,773	5,230	29.9	31.7	15,474	15,474	ND	16,801[i]	21,064
2005–2006	0	540	609	19.9	21.7	11,378	11,378	ND	7,850[i]	17,554
2006–2007	0	770	1,615	NA[j]	18.3	12,413	12,413	ND	14,431[i]	15,830
2007–2008	0	10,700	13,740	NA[j]	33.2	16,796	16,796	ND	22,852[i]	10,252
2008–2009	0	1,933	2,913	NA[j]	29.8	18,350	18,350	ND	16,815[i]	17,903
2009–2010	0	4,180	15,160	NA[j]	32.7	20,231	20,231	ND	79,979[i]	NA[k]
2010–2011	0	7,570	14,380	NA[j]	26.2	18,049[k]	18,049	ND	NA[k]	22,704
2011–2012	0	1,960	7,360	NA[j]	39.3	NA	NA	ND	NA[k]	22,397

[a] Represents the common property seine and gillnet sac roe harvest, and equivalent use of herring in closed pound SOK fisheries.

[b] Largest single day aerial estimate of herring biomass in short tons (2,000 lbs). Does not include Kayak Island estimates.

[c] The sum of all daily aerial biomass estimates for a given year. Does not include Kayak Island estimates.

[d] Total linear miles of spawn (statute miles).

[e] The sum of the daily observed linear miles of herring spawn was calculated in ArcMap from digitized hand-annotated paper maps and data collected electronically (statute miles). Estimate does not include Kayak Island data.

[f] Unexploited escapement and run biomass estimates from age structured analysis (ASA), September 2011.

[g] Partial estimate of spawning biomass from feasibility study.

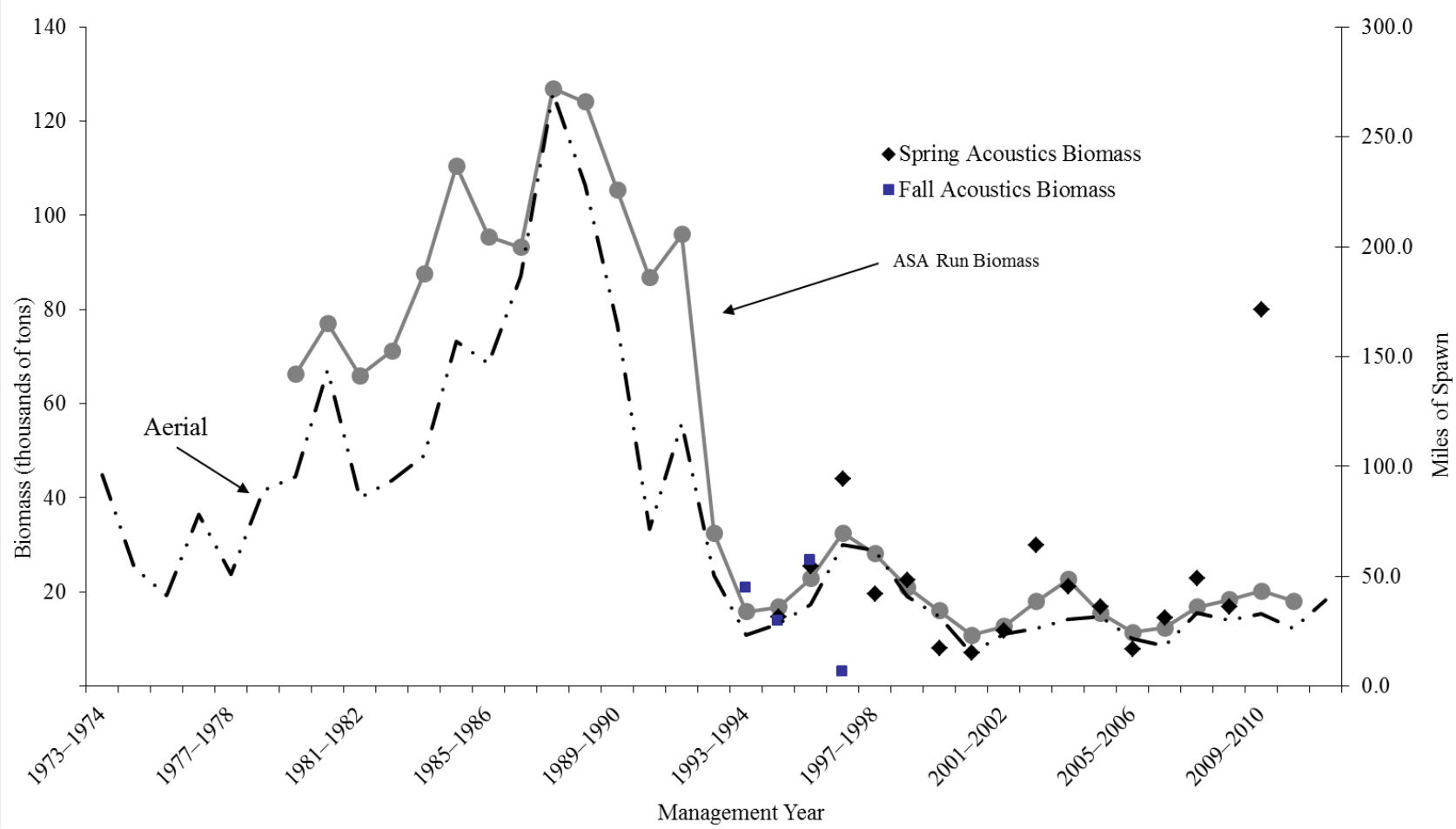
[h] All herring commercial fisheries in PWS were closed in the spring of 1989 because of the potential for the contamination of harvests from the *T/V Exxon Valdez* oil spill.

[i] Acoustics estimates for 2005–2010 are from ADF&G surveys only and are not adjusted for maturity or subsequent harvest. Therefore, they represent the total biomass and not the spawning biomass.

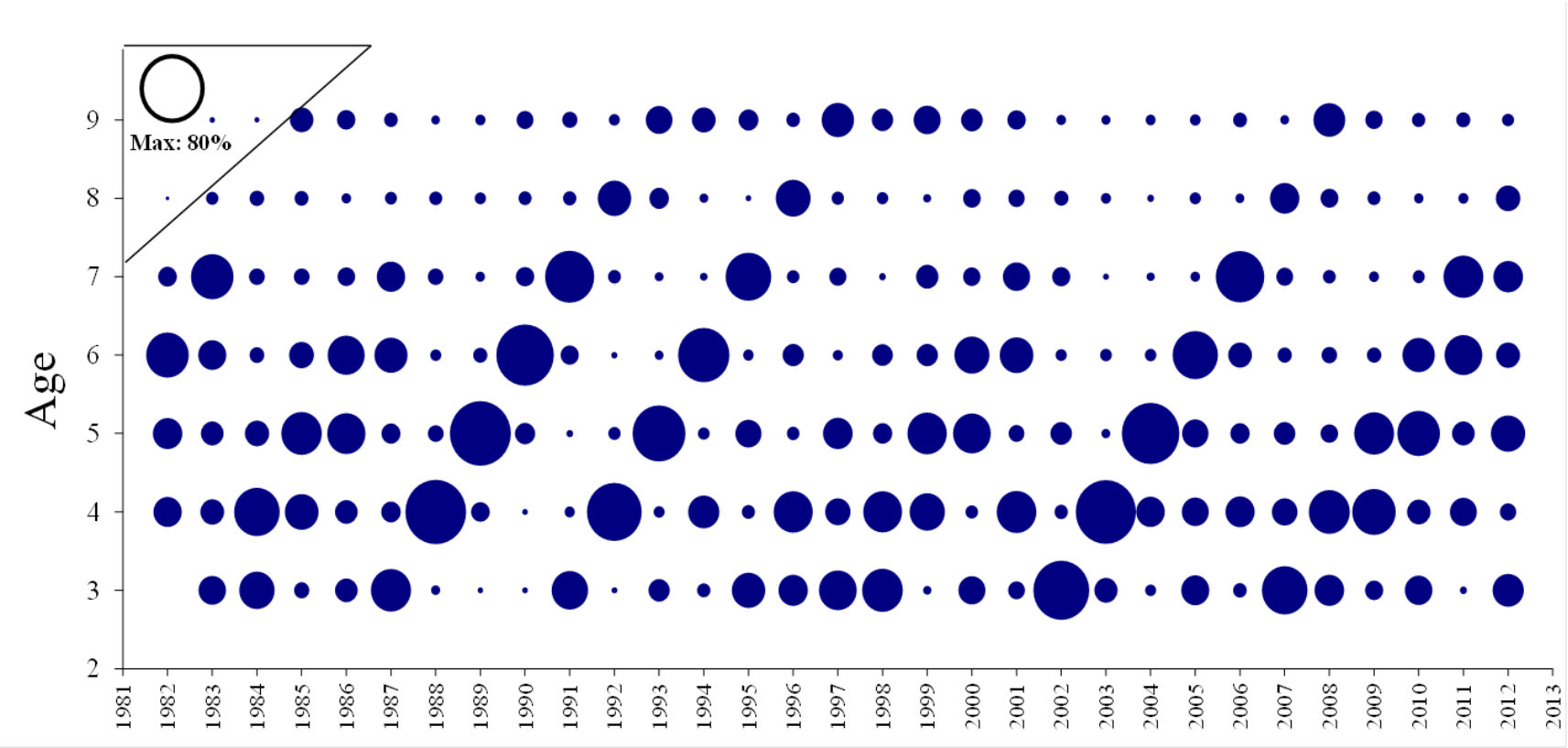
[j] Miles of spawn estimate for 2007–2012 are not available.

[k] Estimates are not available.

Appendix G13.–Prince William Sound annual Pacific herring biomass indices by management year, 1973–2012, and forecast run biomass from the 2011 age structured analysis (ASA) model.



Appendix G14.–Pacific herring percentage contribution by number of each age group to the spring run biomass, 1982–2012.



Appendix G15.–Location of spawning herring and miles of spawn observed during aerial surveys in Prince William Sound, 2012.