2025 ANNUAL MANAGEMENT PLAN
Macaulay Salmon Hatchery
Douglas Island Pink & Chum, Inc.

This Annual Management Plan (AMP) is prepared to fulfill the requirements of 5 AAC 40.840. This plan is prepared to guide hatchery operations in accordance with the hatchery permit. The plan must be developed with consideration of the hatchery's production cycle and must organize and guide the hatchery's operations regarding production goals, broodstock management, and harvest management of hatchery-produced salmon. The production cycle begins with adult returns, that lead to egg takes and end with fish releases. Action may be taken outside of the management plan if allowed under the hatchery permit or modified by emergency order. Inseason assessments and project alterations by Douglas Island Pink and Chum (DIPAC) or Alaska Department of Fish and Game (ADF&G or department) may result in changes to this AMP in order to reach or maintain program objectives. DIPAC will notify the ADF&G private nonprofit (PNP) hatchery program coordinator in a timely manner of any departure from the AMP. The ADF&G PNP coordinator will advise as to whether an amendment, exception report, or other action is warranted. No variation or deviation will be implemented until an AMP amendment has been approved or waived by both the department and DIPAC. This policy applies to all hatchery operations covered under the AMP.

1.0 EXECUTIVE SUMMARY

1.1 *Introduction*

In 1987, DIPAC was issued PNP Hatchery Permit #25 to operate Macaulay Salmon Hatchery (MSH) along Gastineau Channel. The current permitted incubation capacity of this facility is 135 million chum, 1.5 million coho, and 1.25 million Chinook salmon green eggs, plus 50,000 rainbow trout eyed eggs. Salmon enhancement projects operated by the PNP corporation contribute to commercial, sport, and personal use fisheries in Juneau, Haines, Skagway, Petersburg, and Wrangell areas, and along salmon migratory routes in northern Southeast Alaska.

1.2 *New This Year (production, harvest management, culture techniques, etc.)*

MSH no longer has rearing space available for the rainbow trout catchable program. This change in space utilization is being made to provide space for Chinook salmon start tanks. These start tanks will not increase capacity for Chinook salmon, but will lead to better growth and health of the Chinook salmon fry.

Juneau area Chinook returns are forecasted to be better this year than in recent years that were affected by the water intake pipe break in 2020. This year's details are below.

1.3 *New permits or permit amendments*

The following fish transport permits (FTPs) may be needed this year:

1. FTP 16J-1001 (1) and FTP 16J-1002(1) allow for the transport and release of up to 19,000 triploid rainbow trout from William Jack Hernandez Hatchery to Twin Lakes and Mendenhall Area Lakes. These FTPs will expire on December 31st, 2025. DIPAC will not be renewing these FTPs as all rearing equipment for the catchable program will be changed out for start tanks for Chinook salmon fry for the Juneau area smolt release program. If a

community partner has interest in housing the equipment and conducting this rainbow trout lake stocking project in the future, DIPAC may assist that entity in applying for an FTP, and provide the technical skills necessary to get the program started.

2. FTP 23J-1002 allowed DIPAC to take gametes from wild coho salmon in Fish Creek (tributary to the Taku River; AWC code 111-32-10320-2052) and release smolts in Gastineau Channel (statistical area 111-43). This permit expires July 1st, 2025. After the release of that brood year, this FTP will not be renewed unless there are broodstock concerns in future years.

3. FTP 24J-1007 allows for the transfer of up to 650,000 Andrew Creek Chinook salmon from Gunnuk Creek Hatchery to MSH in the event of a brood stock shortage.

1.4 *Expected Returns:* 2025 FORECAST

Species	Return Site/District	Common Property Harvest[1]	Hatchery Terminal Area[2]	Total Return
Chum salmon	Gastineau Channel	610,400	257,000	867,400
	Amalga Harbor	725,400	593,600	1,319,000
	Limestone Inlet	144,500	-	144,500
	Boat Harbor	612,600	-	612,600
Chinook salmon	Gastineau Channel	3,300	1,100	4,400
	Auke Bay	60	0	60
	Fish Creek	1,500	500	2,000
	Lena Cove	1,600	500	2,100
Coho salmon	Gastineau Channel	32,000	17,200	49,200

[1]Includes commercial catch, marine boat sport harvest, and remote-release site terminal sport harvest.
[2]Includes cost recovery, broodstock, escapement, and terminal recreational harvest.

1.5 *Planned releases this calendar year*

Program Name	Brood Year	Number to Release	Life Stage	Type of Mark, Percent Marked
Macaulay chum salmon	2024	12,000,000	Fed fry	100% TM
Thane chum salmon (part of Gastineau Channel release)	2024	24,000,000	Fed fry	100% TM
Amalga Harbor chum salmon	2024	48,000,000	Fed fry	100% TM
Boat Harbor chum salmon	2024	24,000,000	Fed fry	100% TM
Limestone Inlet chum salmon	2024	15,000,000	Fed fry	100% TM
Gastineau Channel Chinook salmon[1,2]	2023	390,000	Smolt	20% CWT & 100% Adipose clip
Fish Creek Chinook salmon[2]	2023	250,000	Smolt	20% CWT& 100% Adipose clip
Lena Cove Chinook salmon[2]	2023	220,000	Smolt	20% CWT& 100% Adipose clip
Auke Bay Chinook Salmon[2]	2023	90,000	Smolt	20% CWT& 100% Adipose clip

Program Name	Brood Year	Number to Release	Life Stage	Type of Mark, Percent Marked
Gastineau Channel coho salmon[1]	2023	290,000	Smolt	7% CWT & 7% Adipose clip

[1]Includes MSH and Thane Net Pens.
[2]Collectively, these locations are the Juneau Area release site.

1.6 *Previous brood years that will remain in culture during the entire calendar year*

Program Name	Brood Year	Number Live (Jan. 1)	Number to Release	Release Date	Life Stage
MSH Chinook	2024	316,900	300,000	Spring 2026	Fry
MSH Coho	2024	1,248,000	1,200,000	Spring 2026	Alevin

1.7 *Current Permitting*

Facility	Species	Egg Number
MSH	Chum salmon	135,000,000
	Chinook salmon	1,250,000
	Coho salmon	1,500,000
	Rainbow trout	50,000

1.8 *Egg take, Incubation, Rearing, and Release Plans*

Chum Salmon

In 2025, the 135 million chum salmon egg take goal is expected to be met using broodstock returning to MSH. Additional eggs may be available from Northern Southeast Regional Aquaculture Association's (NSRAA) Hidden Falls Hatchery (HFH) for release at Limestone Inlet and/or Boat Harbor. Incubation will occur during the fall and winter of 2025–2026. All chum salmon (100%) will be otolith thermal marked.

Short-term rearing will occur in the spring of 2026 in saltwater net pens at the five approved chum salmon release sites. Each site was selected to meet at least one of three harvest goals: broodstock, cost recovery (CR), or common property (CP) contribution. The following table shows DIPAC's currently approved chum salmon production levels by release site.

Brood year 2024 Chum Salmon Production Levels by Release Site

Release Site	Egg take Goal	Fry Release Goal	Harvest Goals
Macaulay Salmon Hatchery	14,100,000	12,000,000	Broodstock/CP/CR
Thane (Gastineau Channel)	28,200,000	24,000,000	Broodstock/CP/CR
Amalga Harbor	46,900,000	45,000,000	CP/CR
Boat Harbor	28,200,000	24,000,000	CP
Limestone Inlet	17,600,000	15,000,000	CP
Total	135,000,000	120,000,000	

If prioritization of releases between Boat Harbor and Limestone Inlet is necessary, it will be based on input from the drift gillnet fleet and the DIPAC board.

Chinook Salmon

In 1994, the department transferred its Juneau recreational fisheries Chinook salmon enhancement program from Snettisham Hatchery to MSH. The program has been funded through a cooperative agreement between ADF&G Division of Sport Fish and DIPAC. Under terms of the current agreement, general production goals call for DIPAC to produce 250,000 25-gram smolt for release at Fish Creek (N. Douglas), 90,000 smolt at Auke Bay, and 160,000 smolt at MSH.

In recent years, DIPAC reinstituted releasing a portion of Chinook salmon Gastineau Channel production at Thane saltwater site (BY2014) as well as developed a release site at Lena Cove (BY2012). Production at these two sites is funded directly by DIPAC. A short term cooperative agreement through the Pacific Salmon Treaty's *Southeast Alaska Chinook Fishery Mitigation Program* partially funded these two release sites for two years.

Chinook salmon production for the Juneau program will continue to utilize Andrew Creek stock. In 2025, the up to 1.25 million MSH Chinook salmon egg take goal is expected to be met using broodstock returning to MSH. Crystal Lake Hatchery (CLH) Medvejie Creek Hatchery (MCH), and Gunnuk Creek Hatchery (GCH) may be used as backup egg sources.

Brood year 2025 Chinook Salmon Production Levels, by Release Location

Stock	Release Location	Release Goal
Andrew Creek	Gastineau Channel[1,2]	390,000
	Fish Creek[2]	250,000
	Auke Bay[2]	90,000
	Lena Cove[2]	220,000

[1]Includes MSH and Thane Net Pens.
[2]Collectively, these locations are the Juneau Area release site.

In 2025 MSH will mark 100% of its Chinook salmon production with adipose fin clips and a minimum of 20% with coded wire tags (CWT).

Coho Salmon

The 2025 egg take goal will be up to 1.5 million green eggs. Broodstock requirements will be based on inseason fecundity estimates. Smolt will be released in Gastineau Channel at MSH and the Thane saltwater site.

An estimated 7% of the total BY25 coho salmon production will be marked with CWTs.

2.0 HATCHERY RETURN MANAGEMENT

2.1 *2025 DIPAC Hatchery Return Projections*

Expected 2025 adult salmon returns from DIPAC releases are shown in Table 1 at the end of this plan. Total returns are expected to be 2,944,000 chum, 49,200 coho, and 8,500 Chinook salmon (6,200 large adult Chinook salmon). A complete accounting of CP harvest of adult Chinook and coho salmon will be obtained from analysis of CWT data. Accounting of CP harvest of chum salmon will be limited to fisheries for which thermal-mark sampling is conducted.

2.2 *Management in CP Fisheries*

DIPAC hatchery returns will contribute to the commercial troll, purse seine, drift gillnet, and sport fisheries along their migration routes back to release sites in the Juneau area. DIPAC Chinook and coho salmon are CWTd to provide estimates of contribution to CP fisheries. Thermal otolith mark and recovery programs have provided contribution estimates for DIPAC chum salmon in the Districts 11 and 15 drift gillnet fisheries, Districts 12 and 14 purse seine fisheries, and in developing troll fisheries in some Districts 12 and 14 spring troll areas.

DIPAC chum salmon returns are harvested in purse seine fisheries in both Icy Strait and northern Chatham Strait. The nearshore waters between Funter Bay and Point Marsden in Chatham Strait are known as the Hawk Inlet shoreline. Fishing is sometimes allowed in this area to harvest pink salmon migrating northward into Lynn Canal and Upper Stephens Passage. During July, ADF&G manages the Hawk Inlet shoreline in accordance with 5 AAC 33.366, *Northern Southeast Seine Fishery Management Plans.* In 2025, any purse seine fishing opportunities along the Hawk Inlet shoreline in July will be based on observed pink salmon abundance and potential conservation concerns for other salmon stocks. Provided pink salmon abundance surplus to escapement needs is observed during July, purse seine opportunities may occur along the Hawk Inlet shoreline if northbound pink salmon runs are strong. Conversely, if northbound runs are poor during July and southbound runs are strong, purse seining may be allowed only south of Point Marsden. Pink salmon parent-year escapements exceeded management target ranges for most Juneau management area stock groups, however, the National Oceanic and Atmospheric Association (NOAA) Fisheries Southeast Alaska Coastal Monitoring (SECM) survey investigating outbound juvenile salmon abundance had average results in 2024, anticipating an average 2025 adult pink salmon return to northern inside waters.

Chum salmon returning to DIPAC facilities are expected to be present in the drift gillnet fisheries in Sections 11-B and 15-C. The District 11 summer drift gillnet fishery is managed on wild stock sockeye salmon abundance. ADF&G may allow additional harvest opportunities in Stephens Passage for chum salmon returning to the Limestone Inlet remote-release site by allowing additional fishing time. A minimum 6-inch mesh size may be required during some weeks from mid-July to mid-August in the

area south of Circle Point to protect Port Snettisham wild sockeye salmon stocks transiting the area. This mesh size has been shown to maximize chum salmon harvests while minimizing sockeye salmon interceptions. In 2020, the northern portion of the Bishop Point to Point Arden line in Section 11-B was shifted slightly to the east for three openings (SWs 29-31) to close waters where hatchery fish stage before entering Gastineau Channel in an attempt to preserve DIPAC chum salmon broodstock. Portions of Section 15-C are managed to harvest both wild and hatchery-stock chum salmon runs, and additional fishing time is expected adjacent to Boat Harbor. Fishery sampling for otolith marks provides estimates of the proportions of hatchery-stock chum salmon in the Districts 11 and 15 drift gillnet fisheries to aid wild stock management and assessment of hatchery returns. In 2025, this sampling program is expected to continue.

Chinook and coho salmon returns to DIPAC release sites have contributed substantially to commercial fisheries, as determined by recovery and analysis of CWTs. No specific commercial fishery management actions pertaining to returning hatchery Chinook or coho salmon is deemed necessary since historical return levels have been sufficient to provide hatchery broodstock. However, MSH coho salmon abundance in the Districts 11 and 15 drift gillnet fisheries is closely monitored inseason so wild stock strength can be assessed.

The Juneau area sport fishery also harvests substantial DIPAC hatchery returns. The marine sport fishery harvests significant numbers of Chinook and coho salmon. The Juneau shoreline sport fishery harvests Chinook, coho, and chum salmon near the hatchery release sites. In 1991, a public dock was constructed by DIPAC to provide more sport fishing opportunities. This structure has been replaced by a new dock as part of a highway improvement project that also includes uplands development and continues to be a very popular community fishery. In 2025, DIPAC staff will estimate catch by anglers fishing from the dock and adjacent beach by using a simplified abundance-based model as well as visual observations on the number of sport anglers and catch. Sport fisheries will be managed by general regulations described in codified regulations or by special regulations issued by Emergency Order (EO) for those waters.

2.3 *Special Harvest Areas (SHAs)*

Gastineau Channel SHA

In 1994, the Alaska Board of Fisheries (BOF) combined and expanded the previously existing Kowee Creek, Sheep Creek, and MSH special harvest areas (SHA), located adjacent to each facility, into a common SHA for harvest of CR fish. The revised Gastineau Channel SHA includes all the waters within Gastineau Channel between Salmon Creek and one mile north of the Dupont dock, (all waters east of 134°29.25′ W long and west of 134°17.38′ W long) (Figure 3). Legal gear for CR in the Gastineau Channel SHA includes purse seine, hand purse seine, beach seine, fyke net, drift gillnet, set gillnet, and dip net.

Projected returns in 2025 from Gastineau Channel releases are expected to include a total 867,400 chum salmon. The portion of the return not harvested in CP fisheries will be available for CR harvest in the Gastineau Channel SHA and for broodstock. In 2025, a total of 49,200 DIPAC coho salmon are expected to return. Returns to the SHA not harvested in CP fisheries will be available for CR and broodstock. Tables 6–13 summarize pink, chum, coho, and Chinook salmon returns by SHA.

DIPAC will operate a weir in Salmon Creek to control the number of hatchery-stock chum salmon

entering the stream. Beginning around July 1, DIPAC will monitor abundance of chum salmon in Salmon Creek. When sufficient numbers of chum salmon are present, the weir will be installed and operated to control escapement of chum salmon into the stream throughout the run. Salmon Creek will be managed for a maximum escapement of 2,500 chum salmon. Appropriate measures will be taken to ensure the weir does not cause substantial delay or mortality in the migration of other salmon and trout species; these measures may include, but are not limited to, opening pickets to pass fish holding below the weir and removing the weir when ADF&G considers chum salmon escapement control measures are no longer necessary. Sport fisheries will be managed as described in codified regulations for these waters. The department may use EO authority to address issues in season. The department typically liberalizes sport harvest limits for Chinook salmon in a terminal area that includes a portion of the Gastineau Channel SHA. In 2025, the liberalized Chinook sport fishing regulations will include a larger area that will overlap the entire Gastineau Channel SHA and expand west and south of the SHA boundaries. This action is done by Emergency Order (1-KS-E-14-25) issued on April 21, 2025.

Amalga Harbor SHA

In 1997, the BOF adopted a proposal designating the Amalga Harbor SHA into regulation. The Amalga Harbor SHA has been opened by EO annually since 1994. This SHA includes those waters enclosed by a line from the Shrine of St. Therese to the southernmost tip of Bird Island to the northernmost tip of Gull Island to a point on the eastern mainland shore at the latitude of 58º30.80′ N lat (Figure 4). As stated in the MSH permit, if conflicts with wild stocks become evident during the hatchery CR fishery, restrictions in the harvest area may be necessary or alternative sites may be investigated. DIPAC chum salmon CR primarily takes place in the Amalga Harbor SHA; however, in years of large returns to MSH, CR may take place in the Gastineau Channel SHA.

Fed chum salmon fry were released from the Amalga Harbor site for the first time in 1991 and the first substantial returns occurred in 1994. In 2025, projected returns from Amalga Harbor fry releases are expected to total approximately 1,319,000 chum salmon. In order to increase the CP share of enhanced chum salmon production, DIPAC will be continuing with CP purse seine openings in a portion of the Amalga Harbor THA, if conditions warrant. This is a step towards the DIPAC goal of providing at least 70% of production to CP harvest. Purse seine gear is the only net gear type that can legally fish in Section 11-A and is very effective in harvesting a substantial volume of fish in a short period of time, thereby minimizing impact to the Amalga Harbor area. These openings may occur during a nine-hour period (9:00 a.m. – 6:00 p.m.) on Thursdays in July. Decisions about these commercial openings will be based on returning run strength of hatchery-stock chum salmon, progress towards CR goals, expected effort levels, and considerations for nontarget species. The department will sample the harvest for sockeye salmon otoliths as part of the normal sampling of commercial salmon harvests.

DIPAC will operate a weir at the outlet of the Petersen Creek lagoon to control the number of hatchery-stock chum salmon entering Peterson Creek. Peterson Creek will be managed for a maximum escapement of 3,000 chum salmon. Appropriate measures will be taken to ensure the weir does not cause substantial delay or mortality in the migration of other salmon and trout species; these measures may include, but are not limited to, opening pickets to pass fish holding above or below the weir and removing the weir when ADF&G considers chum salmon escapement control measures are no longer necessary. ADF&G will require DIPAC to conduct CR fishing in the Amalga Harbor SHA to remove salmon should a substantial number remain after fisheries have ceased. Sport fisheries will be managed as described in codified regulations for these waters. The department may use EO authority to address

issues inseason. In 2025, a portion of the Amalga Harbor SHA will again be closed to sport fishing as was done in 2019–2024 due to low steelhead returns to Peterson Creek. The sport fishing closure occurs from the barrier falls on Peterson Creek to the saltwater shoreline within 200 yards of the creek mouth from April 15 through June 30. Due to low coho salmon escapements to Peterson Creek during 7 of the last 9 years (2016–2024), additional sport fishing closures for coho salmon were implemented in 2024 where fishing for coho salmon was closed September 1 through December 31. This closure will take place again in 2025 where sport fishing for coho salmon will be closed from the barrier falls on Peterson Creek to the saltwater shoreline within 200 yards of the creek mouth from September 1 through December 31.

Boat Harbor SHA

In 1996, the Regional Planning Team (RPT) requested establishment of an SHA near the Boat Harbor remote-release site that could be opened by EO. In 1997, the BOF adopted a proposal designating an SHA near the Boat Harbor remote-release site into regulation. The Boat Harbor SHA is described as those waters within one mile of the western shoreline of Lynn Canal south of 58°40′ N lat to a point 2.4 miles north of Pt. Whidbey at 58°37.05′ N lat, including the waters inside Boat Harbor (Figure 2). In 2025, the return from Boat Harbor releases is expected to total 612,600 chum salmon. DIPAC does not anticipate using the SHA for CR this year. ADF&G will require DIPAC to conduct CR fishing in the SHA to remove salmon should a substantial number remain after fisheries have ceased. Sport fisheries will be managed as described in codified regulations for these waters. The department may use EO authority to address issues inseason.

Limestone Inlet SHA

In 1996, the RPT requested establishment of an SHA near the Limestone Inlet remote-release site that could be opened by EO. The SHA was designated in the MSH PNP Permit in 1996. The area is described as those waters of Limestone Inlet east of a line from 58°01.75′ N lat, 133°59.40′ W long to 58°02.04′ N lat, 133°59.60′ W long (Figure 1). This area is closed to commercial fishing by regulation, although outer portions of the inlet are opened to commercial fishing by EO to increase utilization of returning hatchery-stock chum salmon. This management strategy will be followed again in 2025. CR fishing within this SHA was experimental in nature in 1996 and 1997. No CR fishing has been conducted at Limestone Inlet since 1997 and DIPAC does not anticipate using the SHA for CR this year. The 2025 return from Limestone Inlet releases is expected to total approximately 144,500 chum salmon. ADF&G will require DIPAC to conduct CR fishing in the SHA to remove salmon should a substantial number remain after fisheries have ceased. Sport fisheries will be managed as described in codified regulations for these waters. The department may use EO authority to address issues inseason.

2.4 *Carcass Disposal Plans*

Broodstock

As in previous years, broodstock carcasses will be sold or disposed of in a manner consistent with Alaska Department of Environmental Conservation wastewater discharge regulations.

Cost Recovery

As in prior years, DIPAC intends to fully utilize all CR fish harvested in its SHAs. ADF&G will

require DIPAC to conduct CR fishing in the SHAs to remove salmon should a substantial number remain after fisheries have ceased.

3.0 SPECIAL STUDIES

DIPAC conducts contract work for the National Marine Fisheries Service at the NOAA Fisheries Auke Bay Laboratory in association with the SECM project. DIPAC is working with the University of Alaska Southeast by using environmental sampling equipment to collect data to help determine whether a site would be adequate for mariculture operations. DIPAC will be able to utilize some of this environmental data in comparing the rearing conditions and health of our salmon fry.

4.0 APPROVAL

Recommendation for Approval

Katie Harms, Executive Director 4/29/2025

Scott Forbes, Area Management Biologist, Division of Commercial Fisheries 5/3/2025

Dan Teske, Area Management Biologist, Division of Sport Fish 5/5/2025

Anne Reynolds-Manney, Regional Supervisor, Division of Commercial Fisheries 5/11/2025

Judy Lum, Regional Supervisor, Division of Sport Fish 5/16/2025

Lorna Wilson, PNP Program Assistant Coordinator, Div. of Commercial Fisheries 5/16/2025

Approval:

The 2025 Macaulay Salmon Hatchery Annual Management Plan is hereby approved:

Jason Dye, Deputy Director, Division of Sport Fish 5/17/2025

Forrest Bowers, Operations Manager, Division of Commercial Fisheries 5/16/2025

5.0 ATTACHMENTS

Tables

Figures

Table 1. – Summary of current year DIPAC planned releases, returns, and egg take goals.

Planned Releases by Species and Release Site

Species	Stage	Facility	Release Site	No. Released	No. Fish Marked
Chum salmon	Fed Fry	Macaulay	Macaulay	12,000,000	100% Otolith
			Thane Net Pens	24,000,000	100% Otolith
			Amalga	45,000,000	100% Otolith
			Boat Harbor	24,000,000	100% Otolith
			Limestone	15,000,000	100% Otolith
			TOTAL CHUM	120,000,000	100% Otolith
Coho salmon	Smolt	Macaulay	Gastineau Channel	290,000	21,000 CWT
			TOTAL COHO	290,000	21,000 CWT
Chinook salmon	Smolt	Macaulay	Gastineau Channel	390,000	78,000 CWT
			Fish Cr.	250,000	50,000 CWT
			Lena Cove	220,000	44,000 CWT
			Auke Bay	90,000	18,000 CWT
			TOTAL CHINOOK	950,000	190,000 CWT
			TOTAL CHINOOK & COHO	1,240,000	211,000 CWT

continued…

Table 1 continued.

Expected Adult Returns by Release Site

Species	Release Site	Number of Adults	Assumed % Marine Survival
Chum salmon	Gastineau Channel SHA	867,400	age and site-specific assumptions
	Amalga Harbor SHA	1,319,000	age and site-specific assumptions
	Boat Harbor (Remote)	612,600	age and site-specific assumptions
	Limestone Inlet (Remote)	144,500	age and site-specific assumptions
	TOTAL	2,944,000	
Coho salmon	Gastineau Channel SHA	49,200	3.4%
Chinook salmon	Gastineau Channel[1,2]	400	age and site-specific assumptions
	Auke Bay (Remote)[2]	60	age and site-specific assumptions
	Fish Creek (Remote)[2]	2,000	age and site-specific assumptions
	Lena Cove (Remote)[2]	2,100	age and site-specific assumptions
	TOTAL	8,500	

Egg Take Goals

Species	Facility or Source	Number of Eggs
Chum salmon	Macaulay	135 million
Coho salmon	Macaulay	1.5 million
Chinook salmon[3,4]	Macaulay	1.25 million

[1] Includes MSH and Thane Net Pens.
[1] Collectively, these locations are the Juneau Area release site.
[3] Crystal Lake, Medvejie Creek, and Gunnuk Creek hatcheries may be used as backup egg sources for Andrew Creek stock Chinook salmon eggs.
[4] Subject to change following forthcoming discussions between DIPAC and ADF&G.

Table 2. DIPAC pink salmon releases by release site, brood years 1977 to 2001.

Brood Year	Kowee Creek	Sheep Creek	Macaulay Hatchery	Total
1977	1,643,586			1,643,586
1978	2,100,100			2,100,100
1979	2,087,152			2,087,152
1980	2,395,200	786,480		3,181,680
1981	3,603,368	8,416,942		12,020,310
1982	3,276,947	14,402,028		17,678,975
1983	6,351,572	32,013,322		38,364,894
1984	4,001,642	14,931,240		18,932,882
1985	140,662	36,754,490		36,895,152
1986	53,333	8,423,628		8,476,961
1987	-	29,776,915	11,853,385	41,630,300
1988	-	-	15,032,297	15,032,297
1989	-	17,962,133	9,669,565	27,631,698
1990	-	16,258,086	14,846,296	31,104,382
1991	-	31,636,411	15,420,179	47,056,590
1992	-	32,660,175	15,768,972	48,429,147
1993	-	-	8,663,682	8,663,682
1994	-	-	8,539,515	8,539,515
1995	-	-	8,743,899	8,743,899
1996	-	-	5,901,486	5,901,486
1997	-	-	8,709,149	8,709,149
1998	-	-	5,760,018	5,760,018
1999	-	-	1,681,918	1,681,918
2000	-	-	1,723,910	1,723,910
2001	-	-	1,696,762	1,696,762
Total	25,653,562	244,021,850	134,011,033	403,686,445

Table 3. DIPAC chum salmon releases by release site, brood years 1976–present.

Brood Year	Kowee Creek	Sheep Creek/ Thane	Macaulay Hatchery	Amalga Harbor	Limestone Inlet	Boat Harbor	Total
1976	76,245						76,245
1977	130,205						130,205
1978	-						-
1979	224,014						224,014
1980	921,484						921,484
1981	515,482	104,400					619,882
1982	299,666	726,592					1,026,258
1983	297,029	920,856					1,217,885
1984	-	4,291,652					4,291,652
1985	-	7,001,628					7,001,628
1986	-	18,868,280					18,868,280
1987	-	10,122,835	8,226,934			5,170,000	23,519,769
1988	-	26,697,200	8,719,086			8,508,356	43,924,642
1989	-	3,073,538	11,586,928			8,300,782	22,961,248
1990	-	38,874,036	11,326,584	34,744,923	9,031,860	9,337,000	103,314,403
1991	-	27,011,585	11,959,076	35,918,054	8,500,000	6,709,659	90,098,374
1992	-	27,002,939	11,891,265	36,147,451	10,016,175	9,545,177	94,603,007
1993	-	14,635,458	5,869,938	34,817,531	5,833,126	6,464,450	67,620,503
1994	-	44,673,729	11,825,076	34,472,077	11,411,420	8,931,491	111,313,793
1995	-	44,174,890	11,474,457	34,979,646	15,421,245	8,536,780	114,587,018
1996	-	39,278,455	12,166,444	34,535,728	12,983,190	7,759,020	106,722,837
1997	-	-	24,246,804	49,155,073	13,993,898	7,211,676	94,607,451
1998	-	-	21,991,640	50,783,014	14,473,858	9,262,694	96,511,206
1999	-	-	27,878,900	53,218,962	15,100,000	9,010,000	105,207,862
2000	-	-	27,858,929	46,028,136	15,144,122	14,883,720	103,914,907
2001	-	13,046,247	15,095,772	17,452,832	14,616,604	11,263,498	71,474,953
2002	-	23,004,281	11,794,325	34,878,279	14,001,897	12,223,213	95,901,995
2003	-	23,414,790	10,806,816	36,042,133	14,798,685	14,576,139	99,638,563
2004	-	24,082,294	11,186,653	36,791,145	15,005,171	13,558,987	100,624,250
2005	-	23,553,814	11,337,816	34,718,622	14,145,482	13,472,501	97,228,235
2006	-	24,740,121	11,972,504	48,098,292	15,177,070	14,901,861	114,889,848
2007	-	24,385,242	10,852,489	45,334,725	15,036,500	14,719,447	110,328,403
2008	-	23,678,056	11,868,990	43,970,489	15,220,005	14,251,927	108,989,467
2009	-	15,625,000	7,733,000	44,104,000	14,057,000	13,651,000	95,170,000
2010	-	21,940,000	10,650,000	43,420,000	13,690,000	10,860,000	100,560,000
2011	-	24,035,500	11,988,300	45,145,800	14,418,900	18,356,500	113,945,000
2012	-	23,413,500	11,091,900	41,961,300	14,742,200	22,429,500	113,638,400
2013	-	23,856,200	11,577,300	42,390,600	14,915,000	22,900,100	115,639,200
2014	-	21,658,000	11,733,000	39,562,000	13,450,000	21,046,000	107,449,000
2015	-	19,267,500	10,270,700	31,617,400	13,167,800	20,655,900	94,979,300
2016	-	21,586,600	10,321,900	33,655,100	13,417,000	19,218,700	98,199,300
2017	-	20,083,800	11,819,700	44,429,200	11,715,700	19,789,600	107,838,000
2018	-	18,951,000	10,918,000	42,069,000	11,403,000	19,795,000	103,136,000
2019	-	20,825,000	11,803,000	43,875,000	12,329,000	18,240,000	107,072,000
2020	-	21,260,000	11,674,000	46,294,000	11,818,000	23,479,000	114,525,000
2021	-	22,252,000	12,248,000	45,914,000	14,404,000	22,196,000	117,014,000
2022	-	22,296,000	11,731,000	43,410,000	14,320,000	22,680,000	114,437,000
2023	-	22,514,000	11,071,000	45,306,000	12,333,000	20,470,000	111,694,000
Total	2,464,000	806,927,000	468,568,000	1,375,241,000	450,091,000	524,366,000	3,627,656,000

Table 4. DIPAC releases of coho salmon smolt by release site, brood years 1985–present. [1]

Brood Year	Number of Fish Released							
	Gastineau Channel							
	Sheep Creek/Thane		Macaulay		Twin Lakes		Other	
	Total	Tagged	Total	Tagged	Total	Tagged	Total[2]	Tagged
1985	61,342	38,653						
1986	100,000	48,534	49,659	20,284			18,896	18,858
1987	44,940	20,551	36,866	19,764				
1988	533,233	39,134	546,255	40,198			100,763	19,883
1989	505,287	45,318	507,819	45,868				
1990	582,739	65,983	392,508	32,550	1,719	-		
1991	562,150	55,814	477,999	37,821	4,796	-	2,205	-
1992	563,357	54,173	380,282	36,138			50,574	10,130
1993[3]	621,235	69,825	422,482	43,353	4,370	-	128,245	22,998
1994[4]	518,625	58,788	347,512	34,645	12,771	-		
1995	575,554	59,732	425,899	36,897				
1996			823,659	83,456				
1997[5]	54,251	54,251	783,622	79,846				
1998[5]	91,024	91,024	805,963	83,712				
1999			770,656	75,829				
2000[5]	95,746	90,671	813,225	82,177				
2001			783,928	46,581	9,186	-		
2002			567,282	41,925				
2003			499,616	129,603				
2004			595,187	35,601				
2005			565,964	41,542				
2006			736,511	56,735				
2007			559,429	40,654				
2008			328,000	24,539				
2009			349,000	24,587				
2010			306,700	21,967				

continued…

Table - 4 - continued. DIPAC releases of coho salmon smolt by release site, brood years 1985–present.

Brood Year	Number of Fish Released							
	Gastineau Channel							
	Sheep Creek/Thane		Macaulay		Twin Lakes		Other	
	Total	Tagged	Total	Tagged	Total	Tagged	Total[2]	Tagged
2011			524,900	36,901				
2012	837,900	57,070	343,600	34,573				
2013	686,900	48,482	326,100	22,301				
2014	736,600	45,957	318,100	16,897				
2015	784,800	54,066	233,900	15,877				
2016	907,100	67,000	322,500	19,020			46,800[9]	-
2017	767,500	51,700	300,500	19,000			98,400[9]	-
2018	679,200	48,700	309,400	22,500			95,800[9]	-
2019			764,600[8]	53,900				
2020			222,900	26,900				
2021	1,105,600	84,900	245,100	18,800				
2022	993,600	75,000	287,200	21,700				
Total	12,409,000	1,325,000	17,075,000	1,525,000	32,800	-	541,700	71,900

1/ Shaded cells represent Snettisham Hatchery fish released at Sheep Creek as part of a cooperative agreement between DIPAC and ADF&G.

2/ Releases from "other" areas were made at:

1986 brood released from Auke Rec in 1988.

1988 brood released as pre-smolt into Mendenhall Ponds in December 1989.

1991 brood released as pre-smolt into Picnic Creek at Lena Cove in September 1992.

1992 brood includes 48,574 pre-smolt (10,130 tagged) released into Davidson Creek and 2,000 pre-smolt (untagged).

3/ Includes 9,874 Pavlof River coho F/W reared at Auke Creek Hatchery and transferred to Sheep Creek Hatchery for S/W rearing and release. (All fish were coded wire tagged.)

4/ Includes 7,229 Pavlof River coho F/W reared at Auke Creek Hatchery and transferred to Sheep Creek Hatchery for S/W rearing and release. (All fish were coded wire tagged.)

5/ Sheep Creek releases from UAF coho outbreeding project.

8/ Early released 466,200 due to loss of water supply (few fish are expected to survive). The remaining 293,400 were released as normal in May.

9/ Released as 1 gram fed fry as a cooperative venture w/ the USFS

Table 5. DIPAC releases of Chinook salmon smolt by release site, brood years 1984–present. [1, 2]

	Number of Fish Released																	
	Gastineau Channel																	
Brood	Sheep Creek/Thane		Macaulay		Fish Creek		Auke Bay		Lena Cove		Pullen Creek		Lutak Inlet		Twin Lakes		Other	
Year	Total	Tagged	Total[4]	Tagged	Total	Tagged	Total	Tagged	Total	Tagged	Total	Tagged	Total	Tagged	Total[5]	Tagged	Total[6]	Tagged
1984	30,280	28,221																
1985	31,112	26,227																
1986	31,556	28,527																
1987	120,000	57,513	11,000	10,435														
1988	122,155	31,177	101,462	30,016														
1989[3]	**100,543**	**26,367**	43,595	20,518														
1990			191,765	29,894														
1991			207,536	29,917											3,379	-	107,399	103,573
1992			241,336	38,710											6,216	-	23,389	21,775
1993	28,458	26,483	158,681	31,365	196,549	39,817	193,464	39,683							8,713	-	28,062	26,546
1994	35,423	24,523	64,360	26,030	109,274	29,177	106,255	28,929							8,265	-		
1995	44,664	9,899	171,908	19,581	179,164	19,783	176,193	20,494							12,095	-		
1996			212,285	19,959	179,059	30,207	174,230	19,498							14,182	-		
1997			221,443	30,533	183,701	19,893	173,207	18,375							13,200	-		
1998			208,586	31,745	166,670	27,868	56,929	n/a[7]			91,618	27,637			14,684	-		
1999			213,232	29,426	183,252	19,884	157,393	16,653			32,123	29,746			14,277	-		
2000			213,276	29,737	178,745	18,360	85,040	8,758			95,386	27,835			14,069	-		
2001			120,891	28,766	121,670	29,094					58,793	30,781						
2002	70,525	9,882	177,423	19,607	171,895	16,268	104,949	9,900			128,688	31,288			10,830	-		
2003	101,968	9,424	222,218	24,341	178,429	20,385	86,065	10,406			219,260	28,179			12,801	-		
2004	104,812	9,224	211,248	19,988	184,864	16,715	95,184	9,013			68,002	28,440			13,814	-		
2005	101,093	11,597	147,723	23,980	183,225	23,416	90,767	11,272			168,135	34,107			14,210	-		
2006			147,062	21,794	275,425	33,369	84,447	10,727			51,495	30,416			15,394	-		
2007			216,639	32,194	288,579	31,572	87,190	9,964			276,262	31,004			15,100	-		
2008			223,000	30,636	282,000	30,463	89,000	10,130			258,000	32,497			2,200	-	1,500	-
2009			193,931	17,660	220,635	30,572	90,388	9,224			128,619	25,494	92,785	14,011	17,900	-	1,500	-
2010			213,229	31,538	278,640	27,751	89,932	10,643			194,603	41,423			9,900	-	1,500	-

continued…

Table 5 - continued. DIPAC releases of Chinook salmon smolt by release site, brood years 1984–present.

	Number of Fish Released																	
	Gastineau Channel																	
Brood	Sheep Creek/Thane		Macaulay		Fish Creek		Auke Bay		Lena Cove		Pullen Creek		Lutak Inlet		Twin Lakes		Other	
Year	Total	Tagged	Total[4]	Tagged	Total	Tagged	Total	Tagged	Total	Tagged	Total	Tagged	Total	Tagged	Total[5]	Tagged	Total[6]	Tagged
2011			206,400	30,484	280,200	25,658	87,800	10,157			50,100	10,375			11,500	-		
2012			257,300	31,988	209,700	20,534	70,000	10,949	90,000	11,058					8,800		2,000	-
2013			218,900	29,381	269,500	27,828	88,800	10,090	179,900	19,266	228,700	40,248			9,230			
2014	124,100	13,433	220,500	21,875	279,400	26,886	88,400	9,663	179,100	29,353					6,620			
2015	150,100	14,176	219,500	19,342	279,300	25,930	87,000	7,557	148,900	13,554					4,000			
2016			249,400	22,500	233,900	22,300	89,300	9,800										
2017	182,800	27,900	248,800	42,800	278,700	43,500	89,600	16,100	187,500	29,100								
2018			325,800	63,300	272,200	58,400									4,800			
2019			1,115,600[8]	223,100														
2020			443,500	90,700	364,400	79,200			206,500	45,900								
2021	106,700	22,400	217,800	45,700	249,600	57,200			199,800	43,200								
2022	199,000	42,600	219,800	47,100	250,000	53,600	86,600	18,600	189,100	40,500								
Total	1,685,000	419,600	8,077,000	1,297,000	6,529,000	905,600	2,628,000	336,600	1,380,800	231,900	2,050,000	449,500	92,800	14,000	266,200	-	165,400	151,900

1/ Dark shaded cells represent Snettisham Hatchery fish released at Sheep Creek and Macaulay Hatchery as part of cooperative agreements for sport fishery enhancement and brood stock development, respectively.

2/ Light shaded cells represent releases of King Salmon River stock chinook. All other production releases are Andrew Creek stock.

3/ Numbers in bold are actually age 2.0 BY88 fish released at Sheep Creek in 1991.

4/ Brood year 1987 and 1988 fish are DIPAC fish produced at Snettisham for DIPAC brood stock development.

5/ Twin Lakes BY 1991 fish were released as age 3.0 fish in November 1994.
Twin Lakes BY 1992 fish were released as age 2.0 fish in May 1995.

6/ "Other" BY 1991 releases include 62,579 (60,555 tagged) Tahini River fish and 44,820 (43,018 tagged) Big Boulder Creek fish, released into their respective streams on May 1992.
"Other" BY 1992 fish were released into Big Boulder Creek in May 1993.
"Other" BY 1993 fish were released into Big Boulder Creek in May 1994.
"Other" BY 2008 fish were released (500 each) into Glacier L. (right pelvic fin clip), Moraine L. (left pelvic fin clip), and Crystal L. (upper caudal fin clip) in October 2010.
"Other" BY 2009 fish were released into Glacier L., Moraine L., and Crystal L. in May 2012.

7/ Auke Creek release represented by Fish Creek tags.

8/ Released prior to osmocompetence/smoltification due to loss of water supply.

Table 6. DIPAC terminal area pink salmon returns by site, 1979 to 2003.

Return Year	Kowee Creek	Sheep Creek	Macaulay Hatchery	Total
1979	20,000			20,000
1980	6,000			6,000
1981	14,000			14,000
1982	10,624	5,713		16,337
1983	10,028	95,972		106,000
1984	7,000	53,000		60,000
1985	13,654	429,077		442,731
1986	1,225	21,352		22,577
1987	28,687	766,063		794,750
1988	16,620	20,489		37,109
1989	5,569	65,051	13,079	83,699
1990	686	5,907	58,893	65,486
1991	2,033	259,967	82,641	344,641
1992	1,111	10,340	961,474	972,925
1993	44	1,469	27,523	29,036
1994	1,658	34,128	2,742,870	2,778,656
1995	-	144	82,147	82,291
1996	-	-	25,480	25,480
1997	-	-	209,427	209,427
1998	-	-	171,261	171,261
1999	-	-	511,327	511,327
2000	-	-	115,124	115,124
2001	-	-	106,173	106,173
2002	-	-	93,080	93,080
2003	-	-	100,497	100,497
TOTAL	138,939	1,768,672	5,300,996	7,208,607

Table 7. DIPAC terminal area chum salmon returns by age class, release site, and year of return.

Sheep Creek Hatchery Terminal Area Return by Age Class

Return	Estimated Percentage				Total	Estimated Numbers				Total
Year	Age 3	Age 4	Age 5	Age 6	Return	Age 3	Age 4	Age 5	Age 6	Return
1987	2.8%	58.2%	37.9%	1.1%	100%	115	2,386	1,554	45	4,100
1988	0.0%	94.5%	5.5%	0.0%	100%	-	35,645	2,075	-	37,720
1989	4.6%	81.1%	14.3%	0.0%	100%	1,545	27,243	4,804	-	33,592
1990	0.2%	71.5%	28.2%	0.1%	100%	362	129,260	50,981	181	180,784
1991	2.1%	8.1%	88.1%	1.7%	100%	3,707	14,297	155,505	3,001	176,510
1992	0.9%	80.0%	10.5%	8.6%	100%	1,565	139,072	18,253	14,950	173,840
1993	1.2%	9.0%	89.3%	0.5%	100%	759	5,695	56,507	316	63,277
1994	1.5%	93.1%	4.6%	0.8%	100%	2,044	123,570	6,079	1,035	132,728
1995[1]	15.3%	21.4%	62.3%	0.9%	100%	15,801	21,988	64,153	947	102,941
1996	0.2%	89.3%	9.3%	1.2%	100%	1,206	440,329	45,632	5,916	493,083
1997	4.9%	9.3%	85.2%	0.6%	100%	6,130	11,501	105,675	791	124,097
1998	2.9%	90.6%	5.0%	1.4%	100%	1,539	47,591	2,615	756	52,501
1999	16.5%	71.2%	12.0%	0.3%	100%	9,058	39,059	6,594	144	54,855
2000	0.3%	81.5%	18.1%	0.1%	100%	174	52,584	11,649	76	64,483
2001	0.2%	1.6%	95.0%	3.3%	100%	50	398	24,311	841	25,600
					***** No returns from Sheep Creek production since 2001 *****					
Average	2.6%	63.4%	32.3%	1.7%	100%	2,937	72,708	37,092	1,933	114,674
Total						44,054	1,090,618	556,387	29,000	1,720,111

Macaulay Salmon Hatchery Chum Terminal Area Return by Age Class

Return	**Estimated Percentage**				**Total**	**Estimated Numbers**				**Total**
Year	**Age 3**	**Age 4**	**Age 5**	**Age 6**	**Return**	**Age 3**	**Age 4**	**Age 5**	**Age 6**	**Return**
1989	0.9%	87.9%	8.4%	2.8%	100%	8	737	71	23	839
1990	0.5%	50.5%	49.0%	0.0%	100%	28	2,796	2,713	-	5,536
1991	2.2%	15.6%	80.0%	2.2%	100%	48	342	1,754	48	2,193
1992	1.2%	60.8%	29.1%	8.9%	100%	31	1,552	743	227	2,552
1993	1.7%	75.8%	22.0%	0.5%	100%	308	13,745	3,989	91	18,133
1994	1.6%	76.9%	21.3%	0.1%	100%	1,479	69,778	19,343	127	90,727
1995[2]	10.3%	18.3%	68.6%	2.7%	100%	7,821	13,903	52,074	2,027	75,826
1996[5]	0.3%	89.3%	8.2%	2.1%	100%	555	190,265	17,509	4,559	212,889
1997	0.7%	61.8%	37.4%	0.2%	100%	825	76,882	46,487	229	124,422
1998	2.3%	60.4%	34.7%	2.6%	100%	1,772	47,206	27,098	2,032	78,108
1999	3.8%	83.3%	11.8%	1.1%	100%	3,969	87,459	12,408	1,153	104,989
2000	0.5%	61.5%	37.5%	0.6%	100%	676	83,913	51,193	770	136,553
2001	1.3%	49.4%	47.2%	2.1%	100%	1,130	42,858	40,993	1,814	86,795
2002	8.7%	43.2%	47.5%	0.6%	100%	9,115	45,512	50,042	615	105,283
2003	5.0%	90.6%	4.1%	0.3%	100%	10,283	185,678	8,499	514	204,973
2004	2.4%	77.7%	19.8%	0.0%	100%	4,434	142,470	36,356	-	183,260
2005	33.8%	39.2%	25.3%	1.8%	100%	76,102	88,267	57,019	3,954	225,342
2006	4.2%	91.0%	4.5%	0.3%	100%	23,099	496,386	24,473	1,802	545,761
2007	3.2%	59.9%	36.2%	0.7%	100%	7,457	140,551	84,951	1,590	234,549
2008	2.8%	76.9%	18.4%	1.9%	100%	5,730	155,052	37,109	3,850	201,742
2009	1.3%	64.4%	33.3%	1.0%	100%	2,932	141,410	72,985	2,090	219,416
2010	3.8%	45.1%	49.4%	1.7%	100%	5,116	60,178	65,823	2,230	133,347
2011	4.3%	90.9%	4.5%	0.3%	100%	11,824	252,894	12,551	864	278,133
2012	0.5%	65.8%	33.6%	0.0%	100%	1,318	158,145	80,735	-	240,198
2013	2.2%	53.1%	41.7%	3.0%	100%	5,666	133,669	104,924	7,644	251,903
2014	4.4%	35.4%	58.8%	1.4%	100%	8,046	65,052	108,057	2,647	183,802
2015	2.7%	82.2%	15.0%	0.2%	100%	7,704	238,509	43,430	640	290,283
2016	2.5%	64.3%	31.6%	1.6%	100%	5,703	147,612	72,602	3,680	229,597
2017	0.8%	78.1%	19.5%	1.6%	100%	3,238	298,249	74,586	5,984	382,057
2018	6.2%	25.2%	67.6%	1.0%	100%	13,016	52,970	142,426	2,126	210,538
2019	5.9%	79.6%	10.8%	3.7%	100%	8,900	119,300	16,200	5,500	149,900
2020	27.0%	65.6%	7.2%	0.3%	100%	43,800	106,400	11,700	400	162,300
2021	1.4%	91.2%	7.4%	0.0%	100%	3,300	215,900	17,500	-	236,700
2022	7.9%	58.4%	33.5%	0.2%	100%	19,900	146,600	84,100	500	251,100
2023	5.5%	79.2%	15.0%	0.4%	100%	18,500	268,300	51,000	1,200	339,000
2024	16.7%	70.6%	12.7%	0.0%	100%	50,100	212,000	38,000	-	300,100
Average	5.0%	64.4%	29.2%	1.3%	100%	10,100	125,100	43,700	1,700	180,500
Total						363,900	4,503,000	1,571,000	60,900	6,499,000

Table 7 - continued: DIPAC terminal area chum salmon returns by age class, release site, and year of return.

Gastineau Channel SHA Return by Age Class

Return	Estimated Percentage				Total	Estimated Numbers				Total
Year	Age 3	Age 4	Age 5	Age 6	Return	Age 3	Age 4	Age 5	Age 6	Return
1987	2.8%	58.2%	37.9%	1.1%	100%	112	2,328	1,516	44	4,000
1988	0.0%	94.5%	5.5%	0.0%	100%	-	35,645	2,075	-	37,720
1989	4.5%	81.3%	14.2%	0.1%	100%	1,553	27,980	4,874	23	34,431
1990	0.2%	70.8%	28.9%	0.1%	100%	353	118,931	48,517	162	167,963
1991	2.1%	8.2%	88.0%	1.7%	100%	3,359	13,112	140,647	2,728	159,846
1992	0.9%	79.7%	10.8%	8.6%	100%	1,439	126,716	17,171	13,682	159,008
1993	1.3%	25.1%	73.1%	0.5%	100%	996	18,902	55,162	377	75,437
1994	1.6%	84.0%	13.9%	0.4%	100%	4,140	218,800	36,304	1,099	260,343
1995[1,2]	13.1%	20.0%	65.2%	1.7%	100%	22,326	34,087	110,963	2,897	170,272
1996[5]	0.2%	89.3%	9.0%	1.5%	100%	1,825	653,883	65,555	10,788	732,050
1997	2.8%	35.6%	61.2%	0.4%	100%	6,955	88,383	152,162	1,020	248,520
1998	2.8%	84.1%	11.5%	1.7%	100%	9,998	301,507	41,070	6,072	358,647
1999	7.4%	77.7%	14.3%	0.6%	100%	22,610	237,827	43,921	1,895	306,253
2000	0.2%	71.5%	28.0%	0.3%	100%	948	308,483	121,064	1,140	431,636
2001	1.0%	38.5%	58.1%	2.4%	100%	1,180	43,256	65,304	2,655	112,395
2002	8.7%	43.2%	47.5%	0.6%	100%	9,115	45,512	50,042	615	105,283
2003	5.0%	90.6%	4.1%	0.3%	100%	10,283	185,678	8,499	514	204,973
2004	2.4%	77.7%	19.8%	0.0%	100%	4,434	142,470	36,356	-	183,260
2005	33.8%	39.2%	25.3%	1.8%	100%	76,102	88,267	57,019	3,954	225,342
2006	4.3%	91.0%	4.4%	0.3%	100%	61,565	1,289,496	62,500	3,928	1,417,488
2007	3.8%	66.4%	29.5%	0.3%	100%	32,043	564,717	250,706	2,524	849,990
2008	1.7%	74.4%	22.2%	1.7%	100%	13,499	595,710	177,506	14,006	800,721
2009	1.5%	67.9%	30.1%	0.4%	100%	9,628	436,001	193,435	2,590	641,653
2010	4.2%	47.6%	46.9%	1.4%	100%	21,405	243,679	240,122	7,079	512,285
2011	3.1%	91.6%	5.0%	0.3%	100%	22,630	672,126	36,539	2,214	733,509
2012	0.9%	64.0%	35.1%	0.0%	100%	6,411	479,133	263,169	340	749,052
2013	1.5%	51.8%	43.4%	3.3%	100%	5,666	198,138	166,030	12,532	382,365
2014	4.0%	38.1%	56.6%	1.4%	100%	9,429	90,203	134,044	3,287	236,963
2015	2.2%	81.1%	16.3%	0.3%	100%	11,935	438,723	88,392	1,697	540,747
2016	1.9%	64.2%	32.1%	1.8%	100%	7,628	260,971	130,436	7,257	406,291
2017	1.3%	80.4%	17.1%	1.2%	100%	12,309	778,986	165,936	11,343	968,574
2018	2.9%	21.1%	74.9%	1.2%	100%	14,720	107,220	381,313	6,088	509,342
2019	5.9%	79.6%	10.9%	3.7%	100%	9,100	124,200	17,000	5,800	156,100
2020	27.0%	65.6%	7.2%	0.3%	100%	43,900	106,500	11,700	400	162,500
2021	1.4%	91.2%	7.4%	0.0%	100%	3,311	215,880	17,503	-	236,694
2022	7.8%	57.9%	34.1%	0.2%	100%	19,958	147,902	87,164	574	255,598
2023	6.7%	77.4%	15.6%	0.3%	100%	34,800	404,300	81,300	1,700	522,100
2024	9.2%	74.2%	16.5%	0.1%	100%	65,000	524,800	116,600	900	707,200
Average	4.8%	64.6%	29.5%	1.1%	100%	15,300	272,900	96,800	3,500	388,600
Total						582,700	10,370,000	3,680,000	133,900	14,767,000

Table 7 - continued: DIPAC terminal area chum salmon returns by age class, release site, and year of return.

Amalga Harbor Chum Terminal Area Return by Age Class

Return Year	Estimated Percentage Age 3	Age 4	Age 5	Age 6	Total Return	Estimated Numbers Age 3	Age 4	Age 5	Age 6	Total Return
1993[3]	-					-				
1994	1.2%	98.8%			100%	1,500	123,494			124,994
1995[4]	20.4%	18.3%	60.1%	1.1%	100%	54,523	48,852	160,734	2,836	267,880
1996	1.2%	90.9%	6.8%	1.1%	100%	11,443	880,127	66,201	10,676	968,448
1997	0.6%	54.4%	44.4%	0.6%	100%	3,930	377,003	307,544	4,116	692,593
1998	1.8%	49.1%	47.6%	1.5%	100%	8,920	250,017	242,269	7,480	508,686
1999	8.1%	77.9%	13.0%	0.9%	100%	58,736	563,522	94,181	6,860	723,298
2000	0.7%	78.8%	20.2%	0.2%	100%	9,891	1,057,832	271,587	2,831	1,342,141
2001	6.2%	40.1%	51.8%	1.9%	100%	33,479	216,653	279,743	10,249	540,124
2002	6.7%	65.6%	27.5%	0.2%	100%	76,749	755,633	317,076	1,955	1,151,413
2003	2.5%	85.2%	11.3%	1.0%	100%	44,766	1,556,214	206,933	19,009	1,826,922
2004	0.2%	60.2%	39.5%	0.1%	100%	2,339	634,521	415,663	1,002	1,053,526
2005	29.5%	1.6%	64.6%	4.3%	100%	69,373	3,709	152,209	10,216	235,507
2006	2.2%	96.9%	0.3%	0.6%	100%	36,432	1,617,656	4,642	10,683	1,669,413
2007	2.5%	46.3%	51.3%	0.0%	100%	20,393	383,236	424,813	-	828,442
2008	1.7%	78.3%	18.5%	1.5%	100%	13,885	649,542	153,123	12,806	829,357
2009	2.2%	70.3%	27.0%	0.5%	100%	23,699	749,466	288,122	5,311	1,066,597
2010	4.6%	61.5%	33.4%	0.5%	100%	46,425	617,549	335,189	4,860	1,004,023
2011	0.7%	87.7%	11.1%	0.4%	100%	10,090	1,184,488	150,223	5,893	1,350,695
2012	3.9%	61.9%	34.1%	0.0%	100%	49,425	776,352	427,669	-	1,253,447
2013	0.6%	73.8%	23.8%	1.9%	100%	12,543	1,573,125	506,666	39,541	2,131,875
2014	1.4%	27.8%	69.8%	1.0%	100%	10,098	200,290	501,978	7,185	719,551
2015	1.3%	68.0%	29.2%	1.6%	100%	13,405	688,960	294,295	15,931	1,012,591
2016	1.6%	66.3%	29.5%	2.6%	100%	15,013	624,826	278,156	24,717	942,713
2017	2.9%	65.1%	31.4%	0.7%	100%	30,897	695,966	335,383	7,237	1,069,483
2018	12.6%	46.1%	39.9%	1.4%	100%	85,260	311,270	269,157	9,471	675,158
2019	4.2%	75.1%	17.8%	2.9%	100%	17,800	316,200	74,900	12,200	421,100
2020	23.9%	60.5%	14.3%	1.2%	100%	48,900	123,500	29,200	2,500	204,100
2021	6.0%	89.2%	4.8%	0.0%	100%	27,500	408,500	22,000	100	458,100
2022	7.4%	72.5%	19.8%	0.3%	100%	55,100	536,000	146,400	2,400	739,900
2023	5.2%	68.5%	26.3%	0.0%	100%	71,000	939,300	360,400	-	1,370,700
2024	14.3%	65.3%	20.0%	0.4%	100%	175,400	804,000	246,100	5,400	1,230,900
Average	5.7%	64.6%	29.6%	1.0%	100%	36,700	634,400	245,400	8,100	916,600
Total						1,138,900	19,668,000	7,363,000	243,500	28,414,000

Table 8. DIPAC terminal area chum salmon brood year performance by age class and release site.

Sheep Creek Hatchery Terminal Area Brood Year Performance by Age Class

Brood	No. of Fry	No. Adults Returned to Terminal Area				Total	Total %	% Terminal Run by Age Class			
Year	Released	Age 3	Age 4	Age 5	Age 6	Return	Return	Age 3	Age 4	Age 5	Age 6
1984	4,291,652	115	35,645	4,804	181	40,745	0.9%	0.3%	87.5%	11.8%	0.4%
1985	7,001,628	-	27,243	50,981	3,001	81,225	1.2%	0.0%	33.5%	62.8%	3.7%
1986	18,971,280	1,545	129,260	152,505	14,950	298,260	1.6%	0.5%	43.3%	51.1%	5.0%
1987	10,122,835	362	14,297	18,253	316	33,228	0.3%	1.1%	43.0%	54.9%	1.0%
1988	26,697,200	3,707	139,072	56,507	1,035	200,321	0.8%	1.9%	69.4%	28.2%	0.5%
1989	3,073,538	1,565	5,695	6,079	947	14,286	0.5%	11.0%	39.9%	42.6%	6.6%
1990	37,874,036	759	123,570	64,153	5,916	194,398	0.5%	0.4%	63.6%	33.0%	3.0%
1991	27,011,585	2,044	21,988	45,632	791	70,455	0.3%	2.9%	31.2%	64.8%	1.1%
1992	27,002,939	15,801	440,329	105,675	756	562,561	2.1%	2.8%	78.3%	18.8%	0.1%
1993	14,635,458	1,206	11,501	2,615	144	15,466	0.1%	7.8%	74.4%	16.9%	0.9%
1994	44,673,729	6,130	47,591	6,594	76	60,391	0.1%	10.2%	78.8%	10.9%	0.1%
1995	41,240,126	1,539	39,059	11,649	841	53,088	0.1%	2.9%	73.6%	21.9%	1.6%
1996	39,278,455	9,058	52,584	24,311	-	85,953	0.2%	10.5%	61.2%	28.3%	0.0%
*** No broodstock collection conducted at Sheep Creek since 1996***											

Macaulay Salmon Hatchery Chum Terminal Area Brood Year Performance by Age Class

Brood	No. of Fry	No. Adults Returned to Terminal Area				Total	Total %	% Terminal Run by Age Class			
Year	Released	Age 3	Age 4	Age 5	Age 6	Return	Return	Age 3	Age 4	Age 5	Age 6
1987	8,226,934	28	342	743	91	1,203	0.0%	2.3%	28.4%	61.7%	7.5%
1988	8,719,086	48	1,552	3,989	127	5,716	0.1%	0.8%	27.1%	69.8%	2.2%
1989	11,586,928	31	13,745	19,343	2,027	35,146	0.3%	0.1%	39.1%	55.0%	5.8%
1990	11,326,584	308	69,778	52,074	4,559	126,719	1.1%	0.2%	55.1%	41.1%	3.6%
1991	11,959,076	1,479	13,903	17,509	229	33,120	0.3%	4.5%	42.0%	52.9%	0.7%
1992	11,891,265	7,821	190,265	46,487	2,032	246,605	2.1%	3.2%	77.2%	18.9%	0.8%
1993	5,869,938	555	76,882	27,098	1,153	105,688	1.8%	0.5%	72.7%	25.6%	1.1%
1994	11,825,076	825	47,206	12,408	768	61,206	0.5%	1.3%	77.1%	20.3%	1.3%
1995	11,474,457	1,772	87,459	51,065	1,814	142,111	1.2%	1.2%	61.5%	35.9%	1.3%
1996	12,166,444	3,969	83,703	40,993	615	129,280	1.1%	3.1%	64.7%	31.7%	0.5%
1997	24,264,239	675	42,858	50,042	514	94,088	0.4%	0.7%	45.6%	53.2%	0.5%
1998	21,991,640	1,130	45,512	8,499	-	55,141	0.3%	2.0%	82.5%	15.4%	0.0%
1999	27,878,900	9,115	185,678	37,003	3,954	235,749	0.8%	3.9%	78.8%	15.7%	1.7%
2000	27,858,929	10,283	145,002	57,019	1,802	214,106	0.8%	4.8%	67.7%	26.6%	0.8%
2001	28,142,018	4,513	88,267	24,473	1,590	118,843	0.4%	3.8%	74.3%	20.6%	1.3%
2002	34,798,606	76,102	496,386	84,951	3,850	661,290	1.9%	11.5%	75.1%	12.8%	0.6%
2003	34,221,606	23,099	140,551	37,109	2,090	202,849	0.6%	11.4%	69.3%	18.3%	1.0%
2004	35,268,947	7,457	155,052	72,985	2,230	237,723	0.7%	3.1%	65.2%	30.7%	0.9%
2005	34,891,630	5,730	141,410	65,823	864	213,827	0.6%	2.7%	66.1%	30.8%	0.4%
2006	36,712,625	2,932	60,178	12,551	-	75,660	0.2%	3.9%	79.5%	16.6%	0.0%
2007	35,327,731	5,116	252,894	80,735	7,644	346,390	1.0%	1.5%	73.0%	23.3%	2.2%
2008	35,547,046	11,824	158,145	104,924	2,647	277,540	0.8%	4.3%	57.0%	37.8%	1.0%
2009	23,141,752	1,318	133,669	108,057	640	243,683	1.1%	0.5%	54.9%	44.3%	0.3%
2010	32,596,088	5,666	65,052	43,430	3,680	117,827	0.4%	4.8%	55.2%	36.9%	3.1%
2011	35,971,566	8,046	238,509	72,602	5,984	325,142	0.9%	2.5%	73.4%	22.3%	1.8%
2012	34,505,488	7,704	147,612	74,586	2,126	232,028	0.7%	3.3%	63.6%	32.1%	0.9%
2013	35,434,000	5,700	298,200	142,400	5,500	451,800	1.3%	1.3%	66.0%	31.5%	1.2%
2014	33,391,000	3,200	53,000	16,200	400	72,800	0.2%	4.4%	72.8%	22.2%	0.6%
2015	29,538,000	13,000	119,300	11,700	-	144,000	0.5%	9.0%	82.9%	8.1%	0.0%
2016	31,909,000	8,900	106,400	17,500	500	133,300	0.4%	6.7%	79.8%	13.1%	0.4%
2017	31,903,000	43,844	215,880	84,100	1,200	345,024	1.1%	12.7%	62.6%	24.4%	0.3%
2018	29,869,000	3,300	146,600	51,000	-	200,900	0.7%	1.6%	73.0%	25.4%	0.0%
2019	32,628,000	19,900	268,300	38,000							
2020	35,130,000	18,500	212,000								
2021	34,500,000	50,100									

Table 8 - continued: DIPAC terminal area chum salmon brood year performance by age class and release site.

Gastineau Channel SHA Chum Terminal Area Brood Year Performance by Age Class

Brood	No. of Fry	No. Adults Returned to Terminal Area				Total	Total %	% Terminal Run by Age Class			
Year	Released	Age 3	Age 4	Age 5	Age 6	Return	Return	Age 3	Age 4	Age 5	Age 6
1984	4,291,652	112	29,778	3,479	131	33,500	0.8%	0.3%	88.9%	10.4%	0.4%
1985	7,001,628	-	19,731	36,872	1,926	58,528	0.8%	0.0%	33.7%	63.0%	3.3%
1986	18,971,280	1,119	93,488	99,789	10,687	205,082	1.1%	0.5%	45.6%	48.7%	5.2%
1987	18,349,769	353	13,112	17,171	377	31,012	0.2%	1.1%	42.3%	55.4%	1.2%
1988	35,416,286	3,359	126,716	55,162	1,099	186,336	0.5%	1.8%	68.0%	29.6%	0.6%
1989	14,660,466	1,439	18,902	36,304	2,897	59,542	0.4%	2.4%	31.7%	61.0%	4.9%
1990	49,200,620	996	218,800	110,963	10,788	341,546	0.7%	0.3%	64.1%	32.5%	3.2%
1991	38,970,661	4,140	34,087	65,555	1,020	104,802	0.3%	4.0%	32.5%	62.6%	1.0%
1992	38,894,204	22,326	653,882	152,162	6,072	834,442	2.1%	2.7%	78.4%	18.2%	0.7%
1993	20,505,396	1,825	88,383	41,070	1,895	133,173	0.6%	1.4%	66.4%	30.8%	1.4%
1994	56,498,805	6,955	301,507	43,921	1,138	353,521	0.6%	2.0%	85.3%	12.4%	0.3%
1995	52,714,583	9,998	237,827	120,936	2,655	371,416	0.7%	2.7%	64.0%	32.6%	0.7%
1996	51,444,899	22,610	308,272	65,304	615	396,801	0.8%	5.7%	77.7%	16.5%	0.2%
1997	24,264,239	946	42,858	50,042	514	94,359	0.4%	1.0%	45.4%	53.0%	0.5%
1998	21,991,640	1,130	45,512	8,499	-	55,141	0.3%	2.0%	82.5%	15.4%	0.0%
1999	27,878,900	9,115	185,678	37,003	3,954	235,749	0.8%	3.9%	78.8%	15.7%	1.7%
2000	27,858,929	10,283	145,002	57,019	3,928	216,231	0.8%	4.8%	67.1%	26.4%	1.8%
2001	28,142,018	4,513	88,267	62,500	2,529	157,808	0.6%	2.9%	55.9%	39.6%	1.6%
2002	34,798,606	76,102	1,289,496	251,683	14,006	1,631,286	4.7%	4.7%	79.0%	15.4%	0.9%
2003	34,221,606	61,565	567,217	177,506	2,590	808,879	2.4%	7.6%	70.1%	21.9%	0.3%
2004	35,268,947	32,187	595,710	193,435	7,079	828,412	2.3%	3.9%	71.9%	23.4%	0.9%
2005	34,891,630	13,499	436,000	240,122	2,214	691,835	2.0%	2.0%	63.0%	34.7%	0.3%
2006	36,712,625	9,628	243,679	36,539	340	290,186	0.8%	3.3%	84.0%	12.6%	0.1%
2007	35,327,731	21,405	672,126	263,169	12,532	969,231	2.7%	2.2%	69.3%	27.2%	1.3%
2008	35,547,046	22,630	479,133	166,030	3,287	671,080	1.9%	3.4%	71.4%	24.7%	0.5%
2009	23,141,752	6,411	198,138	134,044	1,697	340,290	1.5%	1.9%	58.2%	39.4%	0.5%
2010	32,596,088	5,666	90,203	88,392	7,257	191,517	0.6%	3.0%	47.1%	46.2%	3.8%
2011	35,971,566	9,429	438,723	130,436	11,343	589,932	1.6%	1.6%	74.4%	22.1%	1.9%
2012	34,505,488	11,935	260,971	165,936	6,088	444,930	1.3%	2.7%	58.7%	37.3%	1.4%
2013	35,434,000	7,600	779,000	381,300	5,800	1,173,700	3.3%	0.6%	66.4%	32.5%	0.5%
2014	33,391,000	12,300	107,200	17,000	400	136,900	0.4%	9.0%	78.3%	12.4%	0.3%
2015	29,538,000	14,700	124,200	11,700	-	150,600	0.5%	9.8%	82.5%	7.8%	0.0%
2016	31,909,000	9,100	106,500	17,500	600	133,700	0.4%	6.8%	79.7%	13.1%	0.4%
2017	31,903,000	43,900	215,900	87,200	1,700	348,700	1.1%	12.6%	61.9%	25.0%	0.5%
2018	29,869,000	3,300	147,900	81,300	900	233,400	0.8%	1.4%	63.4%	34.8%	0.4%
2019	32,628,000	20,000	404,300	116,600							
2020	35,130,000	34,800	524,800								
2021	34,500,000	65,000									

Table 8 - continued: DIPAC terminal area chum salmon brood year performance by age class and release site.

Amalga Harbor Chum Terminal Area Brood Year Performance by Age Class

Brood Year	No. of Fry Released	No. Adults Returned to Terminal Area				Total Return	Total % Return	% Terminal Run by Age Class			
		Age 3	Age 4	Age 5	Age 6			Age 3	Age 4	Age 5	Age 6
1990[1]	34,744,923	-	123,494	160,734	10,676	294,904	0.8%		41.9%	54.5%	3.6%
1991	35,918,054	1,500	48,852	66,201	4,116	120,668	0.3%	1.2%	40.5%	54.9%	3.4%
1992	36,147,451	54,523	880,127	307,544	7,480	1,249,675	3.5%	4.4%	70.4%	24.6%	0.6%
1993	34,817,531	11,443	377,003	242,269	6,860	637,575	1.8%	1.8%	59.1%	38.0%	1.1%
1994	34,472,077	3,930	250,017	94,181	2,831	350,960	1.0%	1.1%	71.2%	26.8%	0.8%
1995	34,979,646	8,920	563,522	271,587	10,249	854,278	2.4%	1.0%	66.0%	31.8%	1.2%
1996	34,535,728	58,736	1,057,832	279,743	1,955	1,398,265	4.0%	4.2%	75.7%	20.0%	0.1%
1997	49,155,073	9,891	216,653	317,076	19,009	562,630	1.1%	1.8%	38.5%	56.4%	3.4%
1998	50,783,014	33,479	755,633	206,933	1,002	997,046	2.0%	3.4%	75.8%	20.8%	0.1%
1999	53,218,963	76,749	1,556,214	415,663	10,216	2,058,842	3.9%	3.7%	75.6%	20.2%	0.5%
2000	46,028,136	44,766	634,521	152,209	10,683	842,180	1.8%	5.3%	75.3%	18.1%	1.3%
2001	17,452,832	2,339	3,709	4,642	-	10,689	0.1%	21.9%	34.7%	43.4%	0.0%
2002	34,878,279	69,373	1,617,656	424,813	12,806	2,124,648	6.1%	3.3%	76.1%	20.0%	0.6%
2003	36,042,133	36,432	383,236	153,123	5,311	578,102	1.6%	6.3%	66.3%	26.5%	0.9%
2004	36,791,145	20,393	649,542	288,122	4,860	962,917	2.6%	2.1%	67.5%	29.9%	0.5%
2005	34,644,948	13,885	749,466	335,189	5,893	1,104,433	3.2%	1.3%	67.9%	30.3%	0.5%
2006	48,098,292	23,699	617,549	150,223	-	791,471	1.6%	3.0%	78.0%	19.0%	0.0%
2007	45,334,725	46,425	1,184,488	427,669	39,541	1,698,123	3.7%	2.7%	69.8%	25.2%	2.3%
2008	43,970,489	10,090	776,352	506,666	7,185	1,300,294	3.0%	0.8%	59.7%	39.0%	0.6%
2009	44,104,194	49,425	1,573,125	501,978	15,931	2,140,460	4.9%	2.3%	73.5%	23.5%	0.7%
2010	43,425,771	12,543	200,290	294,295	24,717	531,846	1.2%	2.4%	37.7%	55.3%	4.6%
2011	45,027,980	10,098	688,960	278,156	7,237	984,451	2.2%	1.0%	70.0%	28.3%	0.7%
2012	41,961,294	13,405	624,826	335,383	9,471	983,084	2.3%	1.4%	63.6%	34.1%	1.0%
2013	42,391,000	15,000	696,000	269,200	12,200	992,400	2.3%	1.5%	70.1%	27.1%	1.2%
2014	39,562,000	30,900	311,300	74,900	2,500	419,600	1.1%	7.4%	74.2%	17.8%	0.6%
2015	31,617,000	85,300	316,200	29,200	100	430,800	1.4%	19.8%	73.4%	6.8%	0.0%
2016	33,655,000	17,800	123,500	22,000	2,400	165,700	0.5%	10.7%	74.6%	13.3%	1.4%
2017	44,429,000	48,900	408,500	146,400	-	603,800	1.4%	8.1%	67.7%	24.2%	0.0%
2018	42,069,000	27,500	536,000	360,400	5,400	929,300	2.2%	3.0%	57.7%	38.8%	0.6%
2019	43,875,000	55,100	939,300	246,100		1,240,500	2.8%				
2020	46,876,000	71,000	804,000			875,000	1.9%				
2021	45,914,000	175,400				175,400	0.4%				

Table 9: DIPAC coho salmon brood year performance, by release site.

GASTINEAU CHANNEL TOTALS (MC=Montana Cr., ST=Steep Cr., SN=Snettisham, SH=Sheep Cr., MH=Macaulay, UAS=various hybrid stocks, FC= Fish Creek/Taku River)

Brood Year	Egg Source	Number Released	Common Property Catch				Cost Recovery	Brood Stock[1]	Total Return[2]	Marine Survival
			Troll	Seine	Gillnet	Sport				
1985	MC	61,342	239	9	464	11	0	678	1,401	2.3%
1986	ST+SN	168,528	7,383	138	837	1,170	0	3,873	13,401	8.0%
1987	MC+SN	81,806	3,635	71	734	210	0	1,132	5,782	7.1%
1988	SH	1,079,488	34,086	1,082	48,119	18,092	109,834	924	212,137	19.7%
1989	MH	1,013,106	40,524	3,244	50,990	15,130	70,733	767	181,388	17.9%
1990	MH	975,247	40,172	687	11,855	11,463	34,539	687	99,403	10.2%
1991	MH	1,040,149	70,757	10,875	29,584	14,486	50,743	1,265	177,710	17.1%
1992	MH	943,853	13,790	104	16,844	3,303	19,988	1,568	55,597	5.9%
1993	MH	1,033,843	24,275	838	9,751	6,610	23,953	1,267	66,694	6.5%
1994	MH	858,908	7,317	830	508	6,553	29,046	1,118	45,372	5.3%
1995	MH	1,001,453	26,750	1,703	6,003	15,092	47,458	1,241	98,247	9.8%
1996	MH	823,659	38,800	3,407	5,459	11,925	58,270	2,683	120,544	14.6%
1997	MH+UAS	837,873	24,586	1,935	3,194	12,503	48,095	2,713	93,026	11.1%
1998	MH+UAS	896,987	24,896	1,191	2,831	6,737	48,744	2,571	86,970	9.7%
1999	MH	770,656	13,917	3,854	3,592	15,874	69,815	846	107,897	14.0%
2000	MH	813,225	11,188	2,887	3,608	14,869	48,914	591	82,056	10.1%
2001	MH	783,928	18,130	2,638	3,473	6,785	33,930	829	65,785	8.4%
2002	MH	567,282	11,437	1,643	639	4,179	21,284	646	39,827	7.0%
2003	MH	499,616	8,182	3	2,455	2,762	13,802	589	27,793	5.6%
2004	MH	595,131	7,463	397	724	2,030	12,623	463	23,700	4.0%
2005	MH	565,964	11,221	0	2,829	4,329	25,520	17	43,916	7.8%
2006	MH	736,511	5,607	491	230	4,052	23,043	97	33,520	4.6%
2007	MH	559,429	7,369	110	6,752	4,131	23,721	1,655	43,738	7.8%
2008	FC	328,000	10,351	2,143	4,059	6,813	7,754	324	31,444	9.6%
2009	FC	349,000	3,605	15	712	2,327	5,292	679	12,630	3.6%
2010	FC	306,700	11,971	2,017	8,402	3,300	8,965	675	35,330	11.5%
2011	MH	524,900	4,305	0	4,839	3,125	11,769	758	24,796	4.7%
2012	MH	1,181,500	17,282	794	6,885	14,120	32,993	962	73,036	6.2%
2013	MH	1,013,000	5,996	0	11,856	7,073	10,244	987	36,156	3.6%
2014	MH	1,054,700	5,031	908	1,663	3,283	2,409	797	14,090	1.3%
2015	MH	1,018,790	12,947	134	16,603	17,054	16,184	716	63,637	6.2%
2016	MH	1,230,000	9,200	0	17,300	12,500	12,400	620	52,000	4.2%
2017	MH	1,068,000	2,700	0	8,900	9,300	13,900	750	35,600	3.3%
2018	MH	998,300	5,500	160	11,700	9,300	15,500	700	42,900	4.3%
2019	MH	298,400	0	0	940	840	410	730	2,900	1.0%
2020	MH	222,900	200	0	1,000	30	350	80	1,700	0.8%
2021	MH	1,350,730	4,000	0	18,200	10,900	19,200	630	53,000	3.9%
Total		26,302,000	540,800	44,300	306,300	271,400	952,200	37,000	2,152,000	7.6%

Table 9 - continued: MISCELLANEOUS RELEASES (MH=Macaulay, SH=Sheep Cr., AC=Auke Cr., TR=Taku River, PR=Pavlof River, MP=Mendenhall Ponds)

Brood Year	Egg Source/ Hatchery/ Release Site	Number Released	Common Property Catch				Cost Recovery	Brood Stock	Total Return[2]	Marine Survival
			Troll	Seine	Gillnet	Sport				
1988	SH/MH/MP	100,763	1,596	210	867	2,412	0	0	5,085	5.0%
1992	TR/SH/TR	48,574	190	0	272	0	0	0	462	1.0%
1993	TR/SH/TR	126,245	522	0	468	5	0	0	995	0.8%
1993	PR/AC/SH	9,874							0	0.0%
1994	PR/SH/SH	7,229	3	0	1	0	0	0	4	0.1%
1997	(*)/SH/SH[3]	54,251	1,172	70	213	115		281	1,850	3.4%
Total		346,936	3,483	280	1,821	2,532	0	281	8,396	

1/ Although all broodstock return to Macaulay Hatchery, a portion is allocated to each release site in proportion to common property catches estimated from CWT recoveries.

2/ Returns do not include jacks.

3/ The release of BY97 coho from Sheep Creek Hatchery in 1999 was conducted under contract with the University of Alaska, Southeast for a genetics outbreeding depression experiment. Egg sources for this release include: Macaulay Hatchery, Hidden Falls Hatchery and Whitman Lake Hatchery.

Table 10. Sheep Creek/Thane Net Pens (Thane) Chinook salmon production summary, brood years 1984–present.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack Returns[1]	Estimated Commercial Harvest[2]	Estimated Sport Harvest[2]	Total	Marine Survival
1984	Snettisham & Crystal Lake/ (Andrew Cr.)	Snettisham Hatchery	30,280	(1988) age 4	2	49	42	93	
				(1989) age 5	37	151	87	275	
				(1990) age 6	35	45	10	90	
				(1991) age 7	1	2	0	3	
				Total Return	**75**	**247**	**139**	**461**	**1.52%**
1985	Snettisham & Crystal Lake/ (Andrew Cr.)	Snettisham Hatchery	31,112	(1987) minis	0	0	0	0	
				(1988) jacks	1	6	0	7	
				(1989) age 4	12	29	10	51	
				(1990) age 5	45	164	94	303	
				(1991) age 6	31	66	5	102	
				(1992) age 7	0	1	0	1	
				Total Return	**89**	**266**	**109**	**464**	**1.49%**
1986	Snettisham & Crystal Lake/ (Andrew Cr.)	Snettisham Hatchery	31,556	(1988) minis	0	0	0	0	
				(1989) jacks	22	12	2	36	
				(1990) age 4	22	104	1	127	
				(1991) age 5	82	93	77	252	
				(1992) age 6	2	84	36	122	
				(1993) age 7	2	0	0	2	
				Total Return	**130**	**293**	**116**	**539**	**1.71%**
1987	Snettisham & Crystal Lake/ (Andrew Cr.)	Snettisham Hatchery	120,000	(1989) minis	0	0	0	0	
				(1990) jacks	89	11	0	100	
				(1991) age 4	132	59	73	264	
				(1992) age 5	136	343	141	620	
				(1993) age 6	218	591	126	935	
				(1994) age 7	21	17	0	38	
				Total Return	**596**	**1,021**	**340**	**1,957**	**1.63%**
1988	Snettisham & Crystal Lake/ (Andrew Cr.)	Snettisham Hatchery	122,155	(1990) minis	0	0	0	0	
				(1991) jacks	0	6	0	6	
				(1992) age 4	1	50	0	51	
				(1993) age 5	176	429	278	883	
				(1994) age 6	241	367	174	782	
				(1995) age 7	27	51	0	78	
				Total Return	**445**	**903**	**452**	**1,800**	**1.47%**
1988	Snettisham & Crystal Lake/ (Andrew Cr.) (released @ age 2.0)	Snettisham Hatchery	100,543	(1991) minis	657	0	0	657	
				(1992) jacks	0	0	0	0	
				(1993) age 4	4	1	0	5	
				(1994) age 5	18	24	2	44	
				(1995) age 6	56	126	0	182	
				(1996) age 7	43	190	66	299	
				Total Return	**778**	**341**	**68**	**1,187**	**1.18%**
1993	L. Port Walter/ (King Salmon R.)	Macaulay Hatchery	28,458	(1995) minis	0	0	0	0	
				(1996) jacks	0	0	0	0	
				(1997) age 4	0	0	0	0	
				(1998) age 5	2	4	19	25	
				(1999) age 6	3	0	1	4	
				(2000) age 7	0	0	0	0	
				Total Return	**5**	**4**	**20**	**29**	**0.10%**
1994	L. Port Walter/ (King Salmon R.)	Macaulay Hatchery	35,423	(1996) minis	0	0	0	0	
				(1997) jacks	0	0	0	0	
				(1998) age 4	19	1	20	40	
				(1999) age 5	4	6	93	103	
				(2000) age 6	0	0	0	0	
				(2001) age 7	0	0	0	0	
				Total Return	**23**	**7**	**113**	**143**	**0.40%**

Table 10. continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack Returns[1]	Estimated Commercial Harvest[2]	Estimated Sport Harvest[2]	Total	Marine Survival
1995	L. Port Walter/ (King Salmon R.)	Macaulay Hatchery	44,664	(1997) minis	0	0	0	0	
				(1998) jacks	0	0	0	0	
				(1999) age 4	30	35	20	85	
				(2000) age 5	0	0	0	0	
				(2001) age 6	0	0	14	14	
				(2002) age 7	0	0	0	0	
				Total Return	**30**	**35**	**34**	**99**	**0.22%**
1996 - 2001		No Broodstock Collected				No Smolt Released			
2002	Macaulay/Andrew Cr.	Macaulay Hatchery	70,525	(2004) minis	0	0	0	0	
				(2005) jacks	0	12	0	12	
				(2006) age 4	24	45	9	78	
				(2007) age 5	0	11	0	11	
				(2008) age 6	58	0	0	58	
				(2009) age 7	0	0	0	0	
				Total Return	**82**	**68**	**9**	**159**	**0.23%**
2003	Macaulay/Andrew Cr.	Macaulay Hatchery	101,968	(2005) minis	0	0	0	0	
				(2006) jacks	0	0	0	0	
				(2007) age 4	0	0	0	0	
				(2008) age 5	0	0	3	3	
				(2009) age 6	159	109	93	361	
				(2010) age 7	0	0	0	0	
				Total Return	**159**	**109**	**96**	**364**	**0.36%**
2004	Macaulay/Andrew Cr.	Macaulay Hatchery	104,812	(2006) minis	0	0	0	0	
				(2007) jacks	0	0	0	0	
				(2008) age 4	0	0	0	0	
				(2009) age 5	624	85	189	898	
				(2010) age 6	73	51	54	178	
				(2011) age 7	75	49	45	169	
				Total Return	**772**	**185**	**288**	**1,245**	**1.19%**
2005	Macaulay/Andrew Cr.	Macaulay Hatchery	101,093	(2007) minis	0	0	0	0	
				(2008) jacks	0	0	0	0	
				(2009) age 4	64	21	95	180	
				(2010) age 5	265	315	197	777	
				(2011) age 6	68	49	45	162	
				(2012) age 7	0	0	0	0	
				Total Return	**397**	**385**	**337**	**1,119**	**1.11%**
2006 - 2013		No Broodstock Collected				No Smolt Released			
2014	Macaulay/Andrew Cr.	Macaulay Hatchery	124,100	(2016) minis	0	0	0	0	
				(2017) jacks	63	0	6	69	
				(2018) age 4	39	109	0	148	
				(2019) age 5	640	93	163	896	
				(2020) age 6	50	0	11	60	
				(2021) age 7	0	0	0	0	
				Total Return	**790**	**200**	**180**	**1,200**	**0.97%**
2015	Macaulay/Andrew Cr.	Macaulay Hatchery	150,100	(2017) minis	0	0	0	0	
				(2018) jacks	10	54	0	63	
				(2019) age 4	306	55	48	409	
				(2020) age 5	655	329	641	1,625	
				(2021) age 6	32	0	21	53	
				(2022) age 7	0	0	0	0	
				Total Return	**1,000**	**440**	**710**	**2,150**	**1.43%**
2016	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			

Table 10. continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack Returns[1]	Estimated Commercial Harvest[2]	Estimated Sport Harvest[2]	Total	Marine Survival
2017	Macaulay/Andrew Cr.		182,800	(2019) minis	0	0	0	0	
				(2020) jacks	7	0	23	30	
				(2021) age 4	128	136	185	449	
				(2022) age 5	123	307	619	1,049	
				(2023) age 6	75	0	141	216	
				(2024) age 7	0	0	0	0	
				Total Return	**330**	**440**	**970**	**1,740**	**0.95%**
2018	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2019	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2020	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2021	Macaulay/Andrew Cr.		106,700	(2023) minis	0	0	0	0	
				(2024) jacks	0	0	0	0	
				(2025) age 4				0	
				(2026) age 5				0	
				(2027) age 6				0	
				(2028) age 7				0	
				Total Return	**0**	**0**	**0**	**0**	**0.00%**
2022	Macaulay/Andrew Cr.		199,000	(2024) minis	0	0	0	0	
				(2025) jacks				0	
				(2026) age 4				0	
				(2027) age 5				0	
				(2028) age 6				0	
				(2029) age 7				0	
				Total Return	**0**	**0**	**0**	**0**	**0.00%**
'85-'05,'14 - '17		Macaulay Hatchery & Snettisham Hatchery	1,379,600	minis	660	0	0	660	
				jacks	190	100	30	320	
				age 4	780	640	460	1,880	
				age 5	2,770	2,200	2,520	7,490	
				age 6	1,070	1,440	720	3,230	
				age 7	170	310	110	590	
				BY84-BY05, BY14-17 Total	**5,600**	**4,700**	**3,800**	**14,170**	**1.03%**
				% of Total	**39.5%**	**33.2%**	**26.8%**	**100.0%**	

1/ Except in 1988, all adults generally return to Macaulay Salmon Hatchery from the Sheep Creek saltwater rearing site.
2/ Contributions based on tag recoveries.

Table 11: Macaulay Salmon Hatchery Chinook salmon production summary, brood years 1987–present.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
1987	Snettisham + Crystal L./ Andrew Creek	Snettisham Hatchery	11,000	(1989) minis	0	0	5	5	
				(1990) jacks	5	0	0	5	
				(1991) age 4	5	5	5	15	
				(1992) age 5	20	15	15	50	
				(1993) age 6	38	17	8	63	
				(1994) age 7	0	2	12	14	
				Total Return	**68**	**39**	**45**	**152**	**1.38%**
1988	Snettisham + Crystal L./ Andrew Creek	Snettisham Hatchery	101,462	(1990) minis	6	0	0	6	
				(1991) jacks	0	7	0	7	
				(1992) age 4	10	8	0	18	
				(1993) age 5	57	57	67	181	
				(1994) age 6	314	14	68	396	
				(1995) age 7	21	6	0	27	
				Total Return	**408**	**92**	**135**	**635**	**0.63%**
1989	Macaulay + Snettisham/ Andrew Creek	Macaulay Hatchery	43,595	(1991) minis	91	0	0	91	
				(1992) jacks	13	0	0	13	
				(1993) age 4	106	99	0	205	
				(1994) age 5	295	22	119	436	
				(1995) age 6	79	18	10	107	
				(1996) age 7	0	0	0	0	
				Total Return	**584**	**139**	**129**	**852**	**1.95%**
1990	Macaulay + Crystal L./ Andrew Creek	Macaulay Hatchery	191,765	(1992) minis	6	0	0	6	
				(1993) jacks	153	105	0	258	
				(1994) age 4	487	455	109	1,051	
				(1995) age 5	1,437	462	453	2,352	
				(1996) age 6	250	59	53	362	
				(1997) age 7	0	0	1	1	
				(1998) age 8	13	0	0	13	
				Total Return	**2,346**	**1,081**	**616**	**4,043**	**2.11%**
1991	Macaulay + Crystal L./ Andrew Creek	Macaulay Hatchery	207,536	(1993) minis	0	0	0	0	
				(1994) jacks	402	160	0	562	
				(1995) age 4	610	307	189	1,106	
				(1996) age 5	617	1,086	867	2,570	
				(1997) age 6	687	230	418	1,335	
				(1998) age 7	14	9	0	23	
				Total Return	**2,330**	**1,792**	**1,474**	**5,596**	**2.70%**
1992	Macaulay + Crystal L./ Andrew Creek	Macaulay Hatchery	241,366	(1994) minis	12	0	0	12	
				(1995) jacks	69	56	54	179	
				(1996) age 4	69	45	29	143	
				(1997) age 5	467	238	231	936	
				(1998) age 6	208	69	549	826	
				(1999) age 7	0	0	0	0	
				Total Return	**825**	**408**	**863**	**2,096**	**0.87%**
1993	Little Port Walter/ King Salmon River	Macaulay Hatchery	158,681	(1995) minis	0	0	0	0	
				(1996) jacks	0	0	0	0	
				(1997) age 4	32	22	48	102	
				(1998) age 5	28	9	100	137	
				(1999) age 6	23	0	21	44	
				(2000) age 7	0	0	0	0	
				Total Return	**83**	**31**	**169**	**283**	**0.18%**
1994	Little Port Walter/ King Salmon River	Macaulay Hatchery	64,360	(1996) minis	0	0	0	0	
				(1997) jacks	18	0	0	18	
				(1998) age 4	9	6	35	50	
				(1999) age 5	20	2	47	69	
				(2000) age 6	0	0	0	0	
				(2001) age 7	0	0	0	0	
				Total Return	**47**	**8**	**82**	**137**	**0.21%**
1995	Little Port Walter/ King Salmon River	Macaulay Hatchery	171,908	(1997) minis	9	0	0	9	
				(1998) jacks	0	0	0	0	
				(1999) age 4	12	68	12	92	
				(2000) age 5	23	36	118	177	
				(2001) age 6	13	0	4	17	
				(2002) age 7	0	0	0	0	
				Total Return	**57**	**104**	**134**	**295**	**0.17%**

Table 11: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
1996	Little Port Walter/ King Salmon River + AC [1]	Macaulay Hatchery	212,285	(1998) minis	0	0	0	0	
				(1999) jacks	8	0	76	84	
				(2000) age 4	53	36	133	222	
				(2001) age 5	170	81	222	473	
				(2002) age 6	45	33	12	90	
				(2003) age 7	0	0	0	0	
				Total Return	**276**	**150**	**443**	**869**	**0.41%**
1997	Macaulay/Andrew Cr.	Macaulay Hatchery	221,443	(1999) minis	164	0	0	164	
				(2000) jacks	47	147	0	194	
				(2001) age 4	306	75	127	508	
				(2002) age 5	2,618	220	1,152	3,990	
				(2003) age 6	514	92	649	1,255	
				(2004) age 7	23	7	10	40	
				Total Return	**3,672**	**541**	**1,938**	**6,151**	**2.78%**
1998	Macaulay/Andrew Cr.	Macaulay Hatchery	208,586	(2000) minis	93	0	0	93	
				(2001) jacks	42	120	13	175	
				(2002) age 4	299	162	105	566	
				(2003) age 5	647	128	1,088	1,863	
				(2004) age 6	467	201	204	872	
				(2005) age 7	0	0	0	0	
				Total Return	**1,548**	**611**	**1,410**	**3,569**	**1.71%**
1999	Macaulay/Andrew Cr.	Macaulay Hatchery	213,232	(2001) minis	367	0	0	367	
				(2002) jacks	183	0	51	234	
				(2003) age 4	492	310	806	1,608	
				(2004) age 5	1,768	482	1635	3,885	
				(2005) age 6	461	396	543	1,400	
				(2006) age 7	24	0	9	33	
				Total Return	**3,295**	**1,188**	**3,044**	**7,527**	**3.53%**
2000	Macaulay/Andrew Cr.	Macaulay Hatchery	231,276	(2002) minis	0	0	0	0	
				(2003) jacks	17	0	19	36	
				(2004) age 4	611	315	352	1,278	
				(2005) age 5	679	608	461	1,748	
				(2006) age 6	213	146	163	522	
				(2007) age 7	0	11	0	11	
				Total Return	**1,520**	**1,080**	**995**	**3,595**	**1.55%**
2001	Macaulay/Andrew Cr.	Macaulay Hatchery	120,891	(2003) minis	12	0		12	
				(2004) jacks	14	0	6	20	
				(2005) age 4	129	88	95	312	
				(2006) age 5	236	267	157	660	
				(2007) age 6	0	17	0	17	
				(2008) age 7	0	7	0	7	
				Total Return	**391**	**379**	**258**	**1,028**	**0.85%**
2002	Macaulay/Andrew Cr.	Macaulay Hatchery	177,423	(2004) minis	172	0	0	172	
				(2005) jacks	0	0	0	0	
				(2006) age 4	0	28	107	135	
				(2007) age 5	424	13	340	777	
				(2008) age 6	163	106	87	356	
				(2009) age 7	0	0	0	0	
				Total Return	**759**	**147**	**534**	**1,440**	**0.81%**
2003	Macaulay/Andrew Cr.	Macaulay Hatchery	222,218	(2005) minis	0	0	0	0	
				(2006) jacks	0	0	0	0	
				(2007) age 4	0	267	78	345	
				(2008) age 5	725	805	776	2,306	
				(2009) age 6	301	164		465	
				(2010) age 7	0	0	0	0	
				Total Return	**1,026**	**1,236**	**854**	**3,116**	**1.40%**
2004	Macaulay/Andrew Cr.	Macaulay Hatchery	211,248	(2006) minis	0	0	0	0	
				(2007) jacks	0	0	0	0	
				(2008) age 4	112	99	38	249	
				(2009) age 5	310	165	191	666	
				(2010) age 6	203	30	224	457	
				(2011) age 7	0	0	0	0	
				Total Return	**625**	**294**	**453**	**1,372**	**0.65%**

Table 11: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2005	Macaulay/Andrew Cr.	Macaulay Hatchery	147,723	(2007) minis	0	0	0	0	
				(2008) jacks	0	0	0	0	
				(2009) age 4	45	19	13	77	
				(2010) age 5	493	158	491	1,142	
				(2011) age 6	153	96	121	370	
				(2012) age 7	0	0	0	0	
				Total Return	**691**	**273**	**625**	**1,589**	**1.08%**
2006	Macaulay/Andrew Cr.	Macaulay Hatchery	147,062	(2008) minis	0	0	0	0	
				(2009) jacks	0	0	22	22	
				(2010) age 4	22	3	16	41	
				(2011) age 5	146	66	132	344	
				(2012) age 6	19	0	13	32	
				(2013) age 7	0	0	0	0	
				Total Return	**187**	**69**	**183**	**439**	**0.30%**
2007	Macaulay/Andrew Cr.	Macaulay Hatchery	216,639	(2009) minis	0	0	0	0	
				(2010) jacks	0	10	0	10	
				(2011) age 4	248	201	224	673	
				(2012) age 5	490	183	397	1,070	
				(2013) age 6	130	66	116	312	
				(2014) age 7	0	0	0	0	
				Total Return	**868**	**460**	**737**	**2,065**	**0.95%**
2008	Macaulay/Andrew Cr.	Macaulay Hatchery	223,000	(2010) minis	0	0	0	0	
				(2011) jacks	0	63	0	63	
				(2012) age 4	224	137	150	511	
				(2013) age 5	387	237	502	1,126	
				(2014) age 6	109	21	99	229	
				(2015) age 7	0	0	0	0	
				Total Return	**720**	**458**	**751**	**1,929**	**0.87%**
2009	Macaulay/Andrew Cr.	Macaulay Hatchery	193,931	(2011) minis	0	0	0	0	
				(2012) jacks	0	0	0	0	
				(2013) age 4	154	192	102	448	
				(2014) age 5	411	98	307	816	
				(2015) age 6	17	0	89	106	
				(2016) age 7	0	0	0	0	
				Total Return	**582**	**290**	**498**	**1,370**	**0.71%**
2010	Macaulay/Andrew Cr.	Macaulay Hatchery	213,229	(2012) minis	0	0	0	0	
				(2013) jacks	76	0	50	126	
				(2014) age 4	343	235	230	808	
				(2015) age 5	655	217	840	1,712	
				(2016) age 6	92	80	69	241	
				(2017) age 7	0	0	0	0	
				Total Return	**1,166**	**532**	**1,189**	**2,887**	**1.35%**
2011	Macaulay/Andrew Cr.	Macaulay Hatchery	206,400	(2013) minis	0	0	0	0	
				(2014) jacks	7	0	4	11	
				(2015) age 4	116	104	67	287	
				(2016) age 5	277	83	101	462	
				(2017) age 6	94	0	4	98	
				(2018) age 7	0	0	0	0	
				Total Return	**494**	**187**	**177**	**858**	**0.42%**
2012	Macaulay/Andrew Cr.	Macaulay Hatchery	257,300	(2014) minis	0	0	0	0	
				(2015) jacks	9	1	5	15	
				(2016) age 4	184	62	47	293	
				(2017) age 5	1,115	89	135	1,339	
				(2018) age 6	171	31	34	235	
				(2019) age 7	0	0	0	0	
				Total Return	**1,500**	**180**	**220**	**1,900**	**0.74%**
2013	Macaulay/Andrew Cr.	Macaulay Hatchery	218,900	(2015) minis	8	0	5	13	
				(2016) jacks	90	31	7	129	
				(2017) age 4	731	9	231	971	
				(2018) age 5	2,055	89	425	2,570	
				(2019) age 6	129	10	58	197	
				(2020) age 7	0	0	0	0	
				Total Return	**3,000**	**140**	**730**	**3,900**	**1.78%**

Table 11: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2014	Macaulay/Andrew Cr.	Macaulay Hatchery	220,500	(2016) minis	0	0	0	0	
				(2017) jacks	137	13	54	204	
				(2018) age 4	107	105	37	249	
				(2019) age 5	1,135	53	369	1,600	
				(2020) age 6	136	0	42	178	
				(2021) age 7	0	0	0	0	
				Total Return	**1,500**	**170**	**500**	**2,200**	**1.00%**
2015	Macaulay/Andrew Cr.	Macaulay Hatchery	219,500	(2017) minis	0	0	0	0	
				(2018) jacks	14	42	2	58	
				(2019) age 4	557	165	174	896	
				(2020) age 5	916	69	343	1,328	
				(2021) age 6	51	0	1	52	
				(2022) age 7	0	0	0	0	
				Total Return	**1,540**	**280**	**520**	**2,330**	**1.06%**
2016	Macaulay/Andrew Cr.	Macaulay Hatchery	249,400	(2018) minis	0	0	0	0	
				(2019) jacks	1,213	1	39	1,300	
				(2020) age 4	149	346	118	613	
				(2021) age 5	596	399	759	1,755	
				(2022) age 6	61	21	7	89	
				(2023) age 7				0	
				Total Return	**2,020**	**770**	**920**	**3,760**	**1.51%**
2017	Macaulay/Andrew Cr.	Macaulay Hatchery	248,800	(2019) minis	0	0	0	0	
				(2020) jacks	9	16	11	36	
				(2021) age 4	217	131	107	455	
				(2022) age 5	244	49	686	979	
				(2023) age 6	**200**	**9**	**65**	274	
				(2024) age 7	**0**	**0**	**0**	0	
				Total Return	**670**	**200**	**870**	**1,740**	**0.70%**
2018	Macaulay/Andrew Cr.	Macaulay Hatchery	325,800	(2020) minis	0	0	0	0	
				(2021) jacks	43	20	74	138	
				(2022) age 4	154	61	160	375	
				(2023) age 5	2,376	122	1,053	3,551	
				(2024) age 6	5	0	0	5	
				(2025) age 7				0	
				Total Return	**2,580**	**200**	**1,290**	**4,070**	**1.25%**
2019	Macaulay/Andrew Cr.		1,115,600	Released prior to osmocompetence/smoltification due to loss of water supply.					
2020	Macaulay/Andrew Cr.	Macaulay Hatchery	443,500	(2022) minis	0	0	0	0	
				(2023) jacks	27	0	25	100	
				(2024) age 4	69	241	160	470	
				(2025) age 5				0	
				(2026) age 6				0	
				(2027) age 7				0	
				Total Return	**100**	**240**	**190**	**570**	**0.13%**
2021	Macaulay/Andrew Cr.	Macaulay Hatchery	217,800	(2023) minis	0	0	0	0	
				(2024) jacks	21	20	36	77	
				(2025) age 4				0	
				(2026) age 5				0	
				(2027) age 6				0	
				(2028) age 7				0	
				Total Return	**20**	**20**	**40**	**80**	**0.04%**
2022	Macaulay/Andrew Cr.	Macaulay Hatchery	219,800	(2024) minis	0	0	0	0	
				(2025) jacks				0	
				(2026) age 4				0	
				(2027) age 5				0	
				(2028) age 6				0	
				(2029) age 7				0	
				Total Return	**0**	**0**	**0**	**0**	**0.00%**
'89-'17	Macaulay/Andrew Cr.	Macaulay Hatchery	5,053,000	minis	930	0	0	930	0.02%
				jacks	2,500	770	340	3,610	0.07%
				age 4	6,320	3,960	3,550	13,830	0.27%
				age 5	19,140	6,290	12,960	38,390	0.76%
				age 6	4,910	1,860	3,620	10,390	0.21%
				age 7	60	30	20	110	0.00%
				BY89-17 Total*	**33,900**	**12,900**	**20,500**	**67,260**	**1.33%**
				% of Total	**50.4%**	**19.2%**	**30.5%**	**100.0%**	
				***Macaulay Hatchery - excludes BY93-96 KSR releases**					

[1]BY96 release was composed of 114,337 King Salmon River chinook smolts, of which 21.086 were marked with coded wire tags, and 97,948 Andrew Creek chinook, of which none were tagged.

Table 12: Fish Creek Chinook salmon production summary, brood years 1996–present.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
1993	Snettisham + Crystal L./ Andrew Creek	Macaulay Hatchery	196,549	(1997) minis	0	0	0	0	
				(1996) jacks	0	0	0	0	
				(1997) age 4	15	0	0	15	
				(1998) age 5	31	111	340	482	
				(1999) age 6	0	82	248	330	
				(2000) age 7	0	0	0	0	
				Total Return	**46**	**193**	**588**	**827**	**0.42%**
1994	Little Port Walter/ King Salmon River	Macaulay Hatchery	109,274	(1996) minis	0	0	0	0	
				(1997) jacks	64	0	34	98	
				(1998) age 4	8	101	136	245	
				(1999) age 5	0	61	255	316	
				(2000) age 6	0	0	32	32	
				(2001) age 7	0	0	0	0	
				Total Return	**72**	**162**	**457**	**691**	**0.63%**
1995	Macaulay Hatchery/ Andrew Creek + KSR[1]	Macaulay Hatchery	179,164	(1997) minis	0	0	0	0	
				(1998) jacks	19	0	0	19	
				(1999) age 4	12	193	223	428	
				(2000) age 5	30	167	395	592	
				(2001) age 6	26	52	132	210	
				(2002) age 7	0	0	0	0	
				Total Return	**87**	**412**	**750**	**1,249**	**0.70%**
1996	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	179,059	(1998) minis	0	0	0	0	
				(1999) jacks	8	0	55	63	
				(2000) age 4	70	207	606	883	
				(2001) age 5	255	476	880	1,611	
				(2002) age 6	0	72	525	597	
				(2003) age 7	0	0	0	0	
				Total Return	**333**	**755**	**2,066**	**3,154**	**1.76%**
1997	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	183,701	(1999) minis	25	0	0	25	
				(2000) jacks	0	0	0	0	
				(2001) age 4	54	81	92	227	
				(2002) age 5	117	277	842	1,236	
				(2003) age 6	33	42	555	630	
				(2004) age 7	0	0	0	0	
				Total Return	**229**	**400**	**1,489**	**2,118**	**1.15%**
1998	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	166,670	(2000) minis	0	0	0	0	
				(2001) jacks	0	0	0	0	
				(2002) age 4	0	34	0	34	
				(2003) age 5	10	159	533	702	
				(2004) age 6	26	42	373	441	
				(2005) age 7	0	0	48	48	
				Total Return	**36**	**235**	**954**	**1,225**	**0.73%**
1999	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	183,252	(2001) minis	85	0	0	85	
				(2002) jacks	39	0	87	126	
				(2003) age 4	133	47	352	532	
				(2004) age 5	577	494	721	1,792	
				(2005) age 6	77	242	169	488	
				(2006) age 7	0	0	0	0	
				Total Return	**911**	**783**	**1,329**	**3,023**	**1.65%**
2000	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	178,525	(2002) minis	0	0	0	0	
				(2003) jacks	0	0	0	0	
				(2004) age 4	0	53	198	251	
				(2005) age 5	27	114	305	446	
				(2006) age 6	62	61	77	200	
				(2007) age 7	0	0	0	0	
				Total Return	**89**	**228**	**580**	**897**	**0.50%**
2001	Macaulay/Andrew Cr.	Macaulay Hatchery	121,670	(2003) minis	4	0	0	4	
				(2004) jacks	7	0	3	10	
				(2005) age 4	0	64	125	189	
				(2006) age 5	264	208	334	806	
				(2007) age 6	0	18	52	70	
				(2008) age 7	0	0	0	0	
				Total Return	**275**	**290**	**514**	**1,079**	**0.89%**

Table 12: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2002	Macaulay/Andrew Cr.	Macaulay Hatchery	171,895	(2004) minis	7	0	3	10	
				(2005) jacks	0	0	0	0	
				(2006) age 4	102	61	166	329	
				(2007) age 5	0	106	589	695	
				(2008) age 6	0	37	252	289	
				(2009) age 7	0	0	0	0	
				Total Return	**109**	**204**	**1,010**	**1,323**	**0.77%**
2003	Macaulay/Andrew Cr.	Macaulay Hatchery	178,429	(2005) minis	0	0	0	0	
				(2006) jacks	0	0	0	0	
				(2007) age 4	0	76	99	175	
				(2008) age 5	0	226	328	554	
				(2009) age 6	0	40	118	158	
				(2010) age 7	0	0	0	0	
				Total Return	**0**	**342**	**545**	**887**	**0.50%**
2004	Macaulay/Andrew Cr.	Macaulay Hatchery	184,864	(2006) minis	0	0	0	0	
				(2007) jacks	0	0	0	0	
				(2008) age 4	0	34	0	34	
				(2009) age 5	41	437	694	1,172	
				(2010) age 6	0	32	77	109	
				(2011) age 7	0	0	0	0	
				Total Return	**41**	**503**	**771**	**1,315**	**0.71%**
2005	Macaulay/Andrew Cr.	Macaulay Hatchery	183,225	(2007) minis	0	0	0	0	
				(2008) jacks	0	0	0	0	
				(2009) age 4	0	19	42	61	
				(2010) age 5	13	61	433	507	
				(2011) age 6	8	42	5	55	
				(2012) age 7	0	0	0	0	
				Total Return	**21**	**122**	**480**	**623**	**0.34%**
2006	Macaulay/Andrew Cr.	Macaulay Hatchery	275,425	(2008) minis	0	0	0	0	
				(2009) jacks	0	0	0	0	
				(2010) age 4	0	4	24	28	
				(2011) age 5	8	73	113	194	
				(2012) age 6	0	86	70	156	
				(2013) age 7	0	0	0	0	
				Total Return	**8**	**163**	**207**	**378**	**0.14%**
2007	Macaulay/Andrew Cr.	Macaulay Hatchery	288,579	(2009) minis	0	0	0	0	
				(2010) jacks	0	0	0	0	
				(2011) age 4	9	226	28	263	
				(2012) age 5	0	356	226	582	
				(2013) age 6	0	31	109	140	
				(2014) age 7	0	0	0	0	
				Total Return	**9**	**613**	**363**	**985**	**0.34%**
2008	Macaulay/Andrew Cr.	Macaulay Hatchery	282,000	(2010) minis	0	0	0	0	
				(2011) jacks	9	43	43	95	
				(2012) age 4	0	345	136	481	
				(2013) age 5	9	630	652	1,291	
				(2014) age 6	25	18	298	341	
				(2015) age 7	0	0	0	0	
				Total Return	**43**	**1,036**	**1,129**	**2,208**	**0.78%**
2009	Macaulay/Andrew Cr.	Macaulay Hatchery	220,635	(2011) minis	0	0	0	0	
				(2012) jacks	0	0	52	52	
				(2013) age 4	0	178	0	178	
				(2014) age 5	92	213	337	642	
				(2015) age 6	0	32	119	151	
				(2016) age 7	0	0	0	0	
				Total Return	**92**	**423**	**508**	**1,023**	**0.46%**
2010	Macaulay/Andrew Cr.	Macaulay Hatchery	278,640	(2012) minis	0	0	0	0	
				(2013) jacks	20	0	95	115	
				(2014) age 4	56	221	288	565	
				(2015) age 5	12	319	845	1,176	
				(2016) age 6	0	0	0	0	
				(2017) age 7	0	0	0	0	
				Total Return	**88**	**540**	**1,228**	**1,856**	**0.67%**

Table 12: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2011	Macaulay/Andrew Cr.	Macaulay Hatchery	280,200	(2013) minis	0	0	0	0	
				(2014) jacks	0	0	0	0	
				(2015) age 4	0	93	116	209	
				(2016) age 5	17	34	1	52	
				(2017) age 6	0	46	167	213	
				(2018) age 7	0	0	0	0	
				Total Return	**17**	**174**	**284**	**474**	**0.17%**
2012	Macaulay/Andrew Cr.	Macaulay Hatchery	209,700	(2014) minis	0	0	0	0	
				(2015) jacks	0	0	0	0	
				(2016) age 4	28	0	61	89	
				(2017) age 5	13	99	289	401	
				(2018) age 6	0	49	0	49	
				(2019) age 7	0	0	0	0	
				Total Return	**40**	**150**	**350**	**540**	**0.26%**
2013	Macaulay/Andrew Cr.	Macaulay Hatchery	269,500	(2015) minis	0	0	0	0	
				(2016) jacks	13	14	50	77	
				(2017) age 4	48	78	321	447	
				(2018) age 5	32	44	2,319	2,394	
				(2019) age 6	0	0	0	0	
				(2020) age 7	0	0	0	0	
				Total Return	**90**	**140**	**2,700**	**2,900**	**1.08%**
2014	Macaulay/Andrew Cr.	Macaulay Hatchery	279,400	(2016) minis	0	0	0	0	
				(2017) jacks	12	22	1	35	
				(2018) age 4	3	143	119	266	
				(2019) age 5	60	502	1,788	2,400	
				(2020) age 6	0	0	97	97	
				(2021) age 7	0	0	0	0	
				Total Return	**70**	**670**	**2,000**	**2,800**	**1.00%**
2015	Macaulay/Andrew Cr.	Macaulay Hatchery	279,300	(2017) minis	0	0	0	0	
				(2018) jacks	0	5	0	5	
				(2019) age 4	31	23	920	975	
				(2020) age 5	0	92	1,315	1,407	
				(2021) age 6	0	50	65	115	
				(2022) age 7	0	0	0	0	
				Total Return	**30**	**170**	**2,300**	**2,500**	**0.90%**
2016	Macaulay/Andrew Cr.	Macaulay Hatchery	233,900	(2018) minis	0	0	0	0	
				(2019) jacks	0	2	20	20	
				(2020) age 4	0	233	305	538	
				(2021) age 5	77	111	1,206	1,394	
				(2022) age 6	19	0	116	135	
				(2023) age 7	0	0	0	0	
				Total Return	**95**	**346**	**1,647**	**2,086**	**0.89%**
2017	Macaulay/Andrew Cr.	Macaulay Hatchery	272,200	(2019) minis	0	0	0	0	
				(2020) jacks	9	0	52	61	
				(2021) age 4	26	72	330	428	
				(2022) age 5	75	90	1,150	1,316	
				(2023) age 6			374	374	
				(2024) age 7				0	
				Total Return	**110**	**162**	**1,907**	**2,179**	**0.80%**
2018	Macaulay/Andrew Cr.	Macaulay Hatchery	272,200	(2020) mini	0	0	0	0	
				(2021) jacks	20	0	225	244	
				(2022) age 4	19	21	365	405	
				(2023) age 5	30	101	2,442	2,573	
				(2024) age 6				0	
				(2025) age 7				0	
				Total Return	**68**	**122**	**3,032**	**3,222**	**1.18%**
2019	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2020	Macaulay/Andrew Cr.	Macaulay Hatchery	364,403	(2022) minis	0	0	0	0	
				(2023) jacks	0	4	22	27	
				(2024) age 4				0	
				(2025) age 5				0	
				(2026) age 6				0	
				(2027) age 7				0	
				Total Return	**0**	**4**	**22**	**27**	**0.01%**

Table 12: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2021	Macaulay/Andrew Cr.	Macaulay Hatchery	2,495,600	(2023) minis	0	0	0	0	
				(2024) jacks	0	0	0	0	
				(2025) age 4				0	
				(2026) age 5				0	
				(2027) age 6				0	
				(2028) age 7				0	
				Total Return	**0**	**0**	**0**	**0**	**0.00%**
2022	Macaulay/Andrew Cr.	Macaulay Hatchery	250,000	(2024) minis	0	0	0	0	
				(2025) jacks				0	
				(2026) age 4				0	
				(2027) age 5				0	
				(2028) age 6				0	
				(2029) age 7				0	
				Total Return	**0**	**0**	**0**	**0**	**0.00%**
'93-'17	Macaulay/Andrew Cr.	Macaulay Hatchery	5,276,000	minis	120	0	0	120	0.00%
				jacks	140	90	460	690	0.01%
				age 4	590	2,490	4,550	7,630	0.14%
				age 5	1,760	5,400	16,640	23,800	0.45%
				age 6	280	1,070	3,960	5,310	0.10%
				age 7	0	0	50	50	0.00%
				BY93-17 Total*	**2,900**	**9,100**	**25,700**	**37,600**	**0.71%**
				% of Total	**7.7%**	**24.2%**	**68.4%**	**100.0%**	
				***excludes BY94 KSR releases**					

[1]Includes 4,000 King Salmon River smolts.

Table 13: Auke Bay Chinook salmon production summary, brood years 1993–present.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival	Cumulative Marine Survival
1993	Snettisham + Crystal L./ Andrew Creek	Macaulay Hatchery	193,464	(1995) minis	0	0	0	0		0.00%
				(1996) jacks	5	0	0	5		0.00%
				(1997) age 4	44	17	0	61		0.03%
				(1998) age 5	71	89	152	312		0.20%
				(1999) age 6	104	111	186	401		0.40%
				(2000) age 7	8	0	2	10		0.41%
				Total Return	**232**	**217**	**340**	**789**	**0.41%**	
1994	Little Port Walter/ King Salmon River	Macaulay Hatchery	106,255	(1996) minis	0	0	0	0		0.00%
				(1997) jacks	256	10	17	283		0.27%
				(1998) age 4	39	43	108	190		0.45%
				(1999) age 5	25	35	160	220		0.65%
				(2000) age 6	0	45	18	63		0.71%
				(2001) age 7	0	0	0	0		0.71%
				Total Return	**320**	**133**	**303**	**756**	**0.71%**	
1995	Macaulay Hatchery/ Andrew Creek + KSR[1]	Macaulay Hatchery	176,193	(1997) minis	0	0	0	0		0.00%
				(1998) jacks	161	21	0	182		0.10%
				(1999) age 4	332	306	264	902		0.62%
				(2000) age 5	197	161	433	791		1.06%
				(2001) age 6	100	102	87	289		1.23%
				(2002) age 7	0	0	0	0		1.23%
				Total Return	**790**	**590**	**784**	**2,164**	**1.23%**	
1996	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	174,230	(1998) minis	0	0	0	0		0.00%
				(1999) jacks	71	0	110	181		0.10%
				(2000) age 4	380	466	629	1,475		0.95%
				(2001) age 5	858	1,193	944	2,995		2.67%
				(2002) age 6	192	241	486	919		3.20%
				(2003) age 7	0	0	0	0		3.20%
				Total Return	**1,501**	**1,900**	**2,169**	**5,570**	**3.20%**	
1997	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	173,207	(1999) minis	50	0	0	50		0.03%
				(2000) jacks	0	3	37	40		0.05%
				(2001) age 4	302	192	257	751		0.49%
				(2002) age 5	880	312	1,328	2,520		1.94%
				(2003) age 6	237	20	524	781		2.39%
				(2004) age 7	0	0	0	0		2.39%
				Total Return	**1,469**	**527**	**2,146**	**4,142**	**2.39%**	
1998	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	56,929	(2000) minis	0	0	0	0		0.00%
				(2001) jacks	16	0	0	16		0.03%
				(2002) age 4	0	0	0	0		0.03%
				(2003) age 5	0	55	183	238		0.45%
				(2004) age 6	0	0	0	0		0.45%
				(2005) age 7	0	0	0	0		0.45%
				Total Return	**16**	**55**	**183**	**254**	**0.45%**	
1999	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	157,393	(2001) minis	16	0	0	16		0.01%
				(2002) jacks	0	0	0	0		0.01%
				(2003) age 4	79	100	211	390		0.26%
				(2004) age 5	46	388	1,181	1,615		1.28%
				(2005) age 6	0	273	283	556		1.64%
				(2006) age 7	0	0	0	0		1.64%
				Total Return	**141**	**761**	**1,675**	**2,577**	**1.64%**	
2000	Macaulay Hatchery/ Andrew Creek	Macaulay Hatchery	85,040	(2002) minis	0	0	0	0		0.00%
				(2003) jacks	47	0	52	99		0.12%
				(2004) age 4	125	0	109	234		0.39%
				(2005) age 5	135	427	90	652		1.16%
				(2006) age 6	57	57	0	114		1.29%
				(2007) age 7	0	0	67	67		1.37%
				Total Return	**364**	**484**	**318**	**1,166**	**1.37%**	
	2001	No Broodstock Collected				No Smolt Released				
2002	Macaulay/Andrew Cr.	Macaulay Hatchery	104,949	(2004) minis	0	0	0	0		0.00%
				(2005) jacks	0	0	0	0		0.00%
				(2006) age 4	95	58	39	192		0.18%
				(2007) age 5	663	47	524	1,234		1.36%
				(2008) age 6	75	79	67	221		1.57%
				(2009) age 7	0	0	0	0		1.57%
				Total Return	**833**	**184**	**630**	**1,647**	**1.57%**	

Table 13: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2003	Macaulay/Andrew Cr.	Macaulay Hatchery	86,065	(2005) minis	0	0	0	0	
				(2006) jacks	0	0	0	0	
				(2007) age 4	0	132	0	132	
				(2008) age 5	562	222	445	1,229	
				(2009) age 6	128	63	71	262	
				(2010) age 7	0	0	0	0	
				Total Return	**690**	**417**	**516**	**1,623**	**1.89%**
2004	Macaulay/Andrew Cr.	Macaulay Hatchery	95,184	(2006) minis	166	0	0	166	
				(2007) jacks	0	0	0	0	
				(2008) age 4	139	98	99	336	
				(2009) age 5	775	411	752	1,938	
				(2010) age 6	89	13	136	238	
				(2011) age 7	0	0	0	0	
				Total Return	**1,169**	**522**	**987**	**2,678**	**2.81%**
2005	Macaulay/Andrew Cr.	Macaulay Hatchery	90,767	(2007) minis	0	0	0	0	
				(2008) jacks	19	0	0	19	
				(2009) age 4	63	37	39	139	
				(2010) age 5	196	208	178	582	
				(2011) age 6	78	57	86	221	
				(2012) age 7	0	0	0	0	
				Total Return	**356**	**302**	**303**	**961**	**1.06%**
2006	Macaulay/Andrew Cr.	Macaulay Hatchery	84,447	(2008) minis	8	0	0	8	
				(2009) jacks	0	0	0	0	
				(2010) age 4	15	45	10	70	
				(2011) age 5	26	57	84	167	
				(2012) age 6	22	10	15	47	
				(2013) age 7	0	0	0	0	
				Total Return	**71**	**112**	**109**	**292**	**0.35%**
2007	Macaulay/Andrew Cr.	Macaulay Hatchery	87,190	(2009) minis	2	0	0	2	
				(2010) jacks	0	0	0	0	
				(2011) age 4	47	69	87	203	
				(2012) age 5	74	317	102	493	
				(2013) age 6	0	0	47	47	
				(2014) age 7	0	0	0	0	
				Total Return	**123**	**386**	**236**	**745**	**0.85%**
2008	Macaulay/Andrew Cr.	Macaulay Hatchery	89,000	(2010) minis	32	0	0	32	
				(2011) jacks	19	7	11	37	
				(2012) age 4	25	75	16	116	
				(2013) age 5	53	241	307	601	
				(2014) age 6	50	0	146	196	
				(2015) age 7	0	0	0	0	
				Total Return	**179**	**323**	**480**	**982**	**1.10%**
2009	Macaulay/Andrew Cr.	Macaulay Hatchery	90,388	(2011) minis	0	0	0	0	
				(2012) jacks	0	10	0	10	
				(2013) age 4	49	18	78	145	
				(2014) age 5	205	99	52	356	
				(2015) age 6	0	0	0	0	
				(2016) age 7	0	0	0	0	
				Total Return	**254**	**127**	**130**	**511**	**0.57%**
2010	Macaulay/Andrew Cr.	Macaulay Hatchery	89,932	(2012) minis	0	0	0	0	
				(2013) jacks	0	0	74	74	
				(2014) age 4	54	163	30	247	
				(2015) age 5	80	58	245	383	
				(2016) age 6	26	0	1	27	
				(2017) age 7	0	0	0	0	
				Total Return	**160**	**221**	**350**	**731**	**0.81%**
2011	Macaulay/Andrew Cr.	Macaulay Hatchery	87,800	(2013) minis	0	0	0	0	
				(2014) jacks	10	0	0	10	
				(2015) age 4	57	0	131	189	
				(2016) age 5	185	36	210	432	
				(2017) age 6	0	21	117	137	
				(2018) age 7	0	0	0	0	
				Total Return	**252**	**57**	**458**	**767**	**0.87%**

Table 13: continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2012	Macaulay/Andrew Cr.	Macaulay Hatchery	70,000	(2014) minis	0	0	0	0	
				(2015) jacks	28	0	34	62	
				(2016) age 4	17	24	1	42	
				(2017) age 5	159	71	6	235	
				(2018) age 6	14	0	13	27	
				(2019) age 7	0	0	0	0	
				Total Return	**220**	**90**	**50**	**370**	**0.53%**
2013	Macaulay/Andrew Cr.	Macaulay Hatchery	88,800	(2015) minis	53	0	6	58	
				(2016) jacks	0	0	0	0	
				(2017) age 4	80	22	107	208	
				(2018) age 5	97	71	130	298	
				(2019) age 6	0	0	0	0	
				(2020) age 7	0	0	0	0	
				Total Return	**230**	**90**	**240**	**560**	**0.63%**
2014	Macaulay/Andrew Cr.	Macaulay Hatchery	88,400	(2016) minis	0	0	0	0	
				(2017) jacks	62	53	6	122	
				(2018) age 4	14	38	22	74	
				(2019) age 5	197	31	175	403	
				(2020) age 6	0	13	0	13	
				(2021) age 7	0	0	0	0	
				Total Return	**270**	**130**	**200**	**610**	**0.69%**
2015	Macaulay/Andrew Cr.	Macaulay Hatchery	87,000	(2017) minis	0	0	0	0	
				(2018) jacks	29	0	1	30	
				(2019) age 4	142	238	189	569	
				(2020) age 5	32	88	435	555	
				(2021) age 6	0	23	12	35	
				(2022) age 7	0	0	0	0	
				Total Return	**200**	**350**	**640**	**1,190**	**1.37%**
2016	Macaulay/Andrew Cr.	Macaulay Hatchery	89,300	(2018) minis	0	0	0	0	
				(2019) jacks	538	16	28	582	
				(2020) age 4	0	40	37	77	
				(2021) age 5	117	139	366	622	
				(2022) age 6	0	0	0	0	
				(2023) age 7				0	
				Total Return	**660**	**190**	**430**	**1,280**	**1.43%**
2017	Macaulay/Andrew Cr.	Macaulay Hatchery	89,600	(2019) minis	**0**	0	0	0	
				(2020) jacks	11	0	11	22	
				(2021) age 4	65	75	112	252	
				(2022) age 5	139	197	481	816	
				(2023) age 6	75	0	141	216	
				(2024) age7	1	0	0	1	
				Total Return	**290**	**270**	**740**	**1,310**	**1.46%**
2018	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2019	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2020	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2021	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2022	Macaulay/Andrew Cr.	Macaulay Hatchery	86,600	(2024) minis	200	0	0	200	
				(2025) jacks				0	
				(2026) age 4				0	
				(2027) age 5				0	
				(2028) age 6				0	
				(2029) age 7				0	
				Total Return	**200**	**0**	**0**	**200**	**0.23%**
'93-'17	Macaulay/Andrew Cr.	Macaulay Hatchery	2,435,000	minis	330	0	10	340	
				jacks	1,020	110	360	1,490	
				age 4	2,120	2,210	2,470	6,800	
				age 5	5,750	4,920	8,800	19,470	
				age 6	1,250	1,080	2,420	4,750	
				age 7	10	0	70	80	
				BY93-17 Total*	**10,500**	**8,300**	**14,100**	**32,930**	**1.35%**
				% of Total	**31.9%**	**25.2%**	**42.8%**	**100.0%**	
				***excludes BY94 KSR releases**					

[1]Includes 4,009 King Salmon River smolts.

Table 14: Lena Cove Chinook salmon production summary, brood years 2012–present.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2012	Macaulay/Andrew Cr.	Macaulay Hatchery	90,000	(2014) minis	0	0	0	0	
				(2015) jacks	45	0	54	99	
				(2016) age 4	68	60	5	133	
				(2017) age 5	184	190	46	419	
				(2018) age 6	18	43	22	83	
				(2019) age 7	0	0	0	0	
				Total Return	**310**	**290**	**130**	**730**	**0.81%**
2013	Macaulay/Andrew Cr.	Macaulay Hatchery	179,900	(2015) minis	109	0	0	109	
				(2016) jacks	57	128	4	189	
				(2017) age 4	253	479	6	738	
				(2018) age 5	391	550	523	1,463	
				(2019) age 6	57	36	61	154	
				(2020) age 7	0	0	0	0	
				Total Return	870	1,200	590	2,700	**1.50%**
2014	Macaulay/Andrew Cr.	Macaulay Hatchery	179,100	(2016) minis	104	0	2	106	
				(2017) jacks	62	30	6	98	
				(2018) age 4	19	265	73	357	
				(2019) age 5	451	165	551	1,200	
				(2020) age 6	0	0	0	0	
				(2021) age 7	0	0	0	0	
				Total Return	**640**	**460**	**630**	**1,800**	**1.01%**
2015	Macaulay/Andrew Cr.	Macaulay Hatchery	148,900	(2017) minis	0	0	0	0	
				(2018) jacks	14	25	26	65	
				(2019) age 4	203	380	292	900	
				(2020) age 5	217	154	696	1,067	
				(2021) age 6	16	0	21	37	
				(2022) age 7	0	0	0	0	
				Total Return	**450**	**560**	**1,030**	**2,100**	**1.41%**
2016	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2017	Macaulay/Andrew Cr.	Macaulay Hatchery	187,500	(2019) minis	0	0	0	0	
				(2020) jacks	18	10	23	52	
				(2021) age 4	121	234	209	563	
				(2022) age 5	136	197	481	814	
				(2023) age 6	34	260	151	445	
				(2024) age7	0	0	0	0	
				Total Return	**310**	**700**	**860**	**1,900**	**1.01%**
2018	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2019	Macaulay/Andrew Cr.	No Broodstock Collected				No Smolt Released			
2020	Macaulay/Andrew Cr.	Macaulay Hatchery	206,500	(2022) minis	66	0	0	66	
				(2023) jacks	17	0	28	0	
				(2024) age 4	14	199	258	471	
				(2025) age 5				0	
				(2026) age 6				0	
				(2027) age 7				0	
				Total Return	**100**	**200**	**290**	**540**	**0.26%**
2021	Macaulay/Andrew Cr.	Macaulay Hatchery	199,800	(2023) minis	45	0	0	45	
				(2024) jacks	52	0	116	168	
				(2025) age 4				0	
				(2026) age 5				0	
				(2027) age 6				0	
				(2028) age 7				0	
				Total Return	**100**	**0**	**120**	**210**	**0.11%**
2022	Macaulay/Andrew Cr.	Macaulay Hatchery	189,100	(2024) minis	30	0	0	30	
				(2025) jacks				0	
				(2026) age 4				0	
				(2027) age 5				0	
				(2028) age 6				0	
				(2029) age 7				0	
				Total Return	**30**	**0**	**0**	**30**	**0.02%**
'12-'17	Macaulay/Andrew Cr.	Macaulay Hatchery	785,000	minis	210	0	0	210	
				jacks	200	190	110	500	
				age 4	660	1,420	580	2,700	
				age 5	1,380	1,250	2,300	4,900	
				age 6	130	340	250	720	
				age 7	0	0	0	0	
				BY 12-17	**2,600**	**3,200**	**3,200**	**9,000**	**1.15%**
				% of Total	**28.9%**	**35.6%**	**35.6%**		

Table 15: Pullen Creek Chinook salmon production summary, brood years 1998-2013.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
1998	Burro Cr./Tahini River	Macaulay Hatchery	91,618	(2001) jacks	0	71	20	91	
				(2002) age 4	20	27	56	103	
				(2003) age 5	221	10	48	279	
				(2004) age 6	13	19	29	61	
				(2005) age 7	0	0	0	0	
				Total Return	**254**	**127**	**153**	**534**	**0.58%**
1999	Burro Cr./Tahini River	Macaulay Hatchery	32,123	(2002) jacks	2	0	7	9	
				(2003) age 4	86	21	76	183	
				(2004) age 5	25	15	84	124	
				(2005) age 6	31	4	6	41	
				(2006) age 7	0	0	0	0	
				Total Return	**144**	**40**	**173**	**357**	**1.11%**
2000	Burro Cr./Tahini River	Macaulay Hatchery	95,386	(2003) jacks	4	0	3	7	
				(2004) age 4	20	24	208	252	
				(2005) age 5	151	76	164	391	
				(2006) age 6	0	0	0	0	
				(2007) age 7	18	0	0	18	
				Total Return	**193**	**100**	**375**	**668**	**0.70%**
2001	Burro Cr./Tahini River	Macaulay Hatchery	58,793	(2004) jacks	0	8	8	16	
				(2005) age 4	74	76	308	458	
				(2006) age 5	19	213	82	314	
				(2007) age 6	30	6	18	54	
				(2008) age 7	0	0	0	0	
				Total Return	**123**	**303**	**416**	**842**	**1.43%**
2002	Burro Cr./Tahini River	Macaulay Hatchery	128,688	(2005) jacks	0	29	172	201	
				(2006) age 4	26	36	89	151	
				(2007) age 5	545	28	154	727	
				(2008) age 6	38	0	0	38	
				(2009) age 7	0	0	0	0	
				Total Return	**609**	**93**	**415**	**1,117**	**0.87%**
2003	Pullen Cr./Tahini River	Macaulay Hatchery	219,260	(2006) jacks	0	8	112	120	
				(2007) age 4	83	210	582	875	
				(2008) age 5	729	84	34	847	
				(2009) age 6	40	0	0	40	
				(2010) age 7	0	0	0	0	
				Total Return	**852**	**302**	**728**	**1,882**	**0.86%**
2004	Pullen Cr./Tahini River	Macaulay Hatchery	68,002	(2007) jacks	0	2	22	24	
				(2008) age 4	112	58	0	170	
				(2009) age 5	243	42	37	322	
				(2010) age 6	6	0	12	18	
				(2011) age 7	0	0	0	0	
				Total Return	**361**	**102**	**71**	**534**	**0.79%**
2005	Pullen Cr./Tahini River	Macaulay Hatchery	168,135	(2008) jacks	46	0	0	46	
				(2009) age 4	40	10	164	214	
				(2010) age 5	83	54	30	167	
				(2011) age 6	30	0	0	30	
				(2012) age 7	0	0	0	0	
				Total Return	**199**	**64**	**194**	**457**	**0.27%**
2006	Pullen Cr./Tahini River	Macaulay Hatchery	51,495	(2009) jacks	0	0	0	0	
				(2010) age 4	0	1	0	1	
				(2011) age 5	10	5	0	15	
				(2012) age 6	1	0	0	1	
				(2013) age 7	0	0	0	0	
				Total Return	**11**	**6**	**0**	**17**	**0.03%**

continued…

Table 15 continued.

Brood Year	Donor Source/Ancestral Stock	Rearing Location	Smolt Released	(Return Year) Age Class	Hatchery Rack + Escapement Returns	Estimated Commercial Harvest	Estimated Sport Harvest	Total	Marine Survival
2007	Pullen Cr./Tahini River	Macaulay Hatchery	276,262	(2010) jacks	0	0	0	0	
				(2011) age 4	315	0	0	315	
				(2012) age 5	26	106	10	142	
				(2013) age 6	0	0	0	0	
				(2014) age 7	0	0	0	0	
				Total Return	**341**	**106**	**10**	**457**	**0.17%**
2008	Pullen Cr./Tahini River	Macaulay Hatchery	258,000	(2011) jacks	0	38	0	38	
				(2012) age 4	35	221	0	256	
				(2013) age 5	441	43	159	643	
				(2014) age 6	2	0	53	55	
				(2015) age 7	0	0	0	0	
				Total Return	**478**	**302**	**212**	**992**	**0.38%**
2009	Pullen Cr./Tahini River	Macaulay Hatchery	128,619	(2012) jacks	0	0	0	0	
				(2013) age 4	37	304	168	509	
				(2014) age 5	9	91	9	109	
				(2015) age 6	0	0	0	0	
				(2016) age 7	0	0	0	0	
				Total Return	**46**	**395**	**177**	**618**	**0.48%**
2010	Pullen Cr./Tahini River	Macaulay Hatchery	194,603	(2013) jacks	0	0	0	0	
				(2014) age 4	17	59	39	115	
				(2015) age 5	0	10	87	97	
				(2016) age 6	0	0	0	0	
				(2017) age 7	0	0	0	0	
				Total Return	**17**	**69**	**126**	**212**	**0.11%**
2011	Pullen Cr./Tahini River	Macaulay Hatchery	50,100	(2014) jacks	0	0	0	0	
				(2015) age 4	0	0	64	64	
				(2016) age 5	0	0	0	0	
				(2017) age 6	0	0	0	0	
				(2018) age 7	0	0	0	0	
				Total Return	**0**	**0**	**64**	**64**	**0.13%**
	2012	No Broodstock Collected				No Smolt Released			
2013	Pullen Cr./Tahini River	Macaulay Hatchery	228,700	(2016) Jacks	0	17	0	17	
				(2017) age 4	0	50	1	51	
				(2018) age 5	0	6	0	6	
				(2019) age 6	0	0	0	0	
				(2020) age 7	0	0	0	0	
				Total Return	**0**	**70**	**0**	**70**	**0.03%**
	2014 - 2023	No Broodstock Collected				No Smolt Released			
'98-'13	Pullen Cr./Tahini River	Macaulay Hatchery	2,050,000	jacks	50	170	340	560	
				age 4	870	1,100	1,800	3,800	
				age 5	2,500	780	900	4,200	
				age 6	190	30	120	340	
				age 7	20	0	0	20	
				BY98-13 Total	**3,600**	**2,100**	**3,200**	**8,900**	**0.43%**
				% of Total	**40.4%**	**23.6%**	**36.0%**		

Table 16.–Macaulay Salmon Hatchery fish transport permits.

Species/Stock	Location	ET, transport, release?	FTP #	Maximal #, Life Stage	Expires
Chum	MSH	ET, Release	99J-1002	135 million eggs/ 36 million fry	6/30/27
Chum	Amalga Harbor	Transfer, Release	99J-1001	54 million fry	12/31/33
Chum	Boat Harbor	Transfer, Release	00J-1011	24 million fry	6/30/29
Chum	Limestone Inlet	Transfer, Release	00J-1003	15 million fry	6/30/29
Chum	Thane Net Pens	Transfer, Release	02J-1001	24 million fry	6/30/27
Chum	HFH to MSH	Transport	02J-1015	32 million eggs	6/30/27
Chinook/Andrew Creek	Juneau Area	ET, Transport, Release	23J-1010	1,250,000 eggs/1,100,000 release[1]	12/31/30
Chinook/ Andrew Creek	MSH	ET, Release	10J-1006	1,250,000 eggs/ 650,000 smolt	7/24/30
Chinook/ Andrew Creek	Fish Creek	Transfer, Release	97J-1002	300,000 smolt	12/29/29
Chinook/ Andrew Creek	Auke Bay	Transfer, Release	97J-1001	200,000 smolt	6/30/29
Chinook/ Andrew Creek	Mendenhall Ponds	Transfer, Release	10J-1027	4,000 subcatchables/ catchables	9/30/30
Chinook/ Andrew Creek	CLH to MSH	ET, Transfer	06J-1035	650,000 eggs	8/31/31

continued…

Table 16 continued.

Species/Stock	Location	ET, transport, release?	FTP #	Maximal #, Life Stage	Expires
Chinook/ Andrew Creek	MCH to MSH	ET, Transfer	08J-1002	650,000 eggs	7/31/28
Chinook/ Andrew Creek	HFH to MSH	ET, Transfer	09J-1017	650,000 eggs	7/31/29
Chinook/ Andrew Creek	GCH to MSH	ET, Transfer	24J-1007	650,000 eggs	8/1/34
Chinook/ Andrew Creek	Fish Creek	Transfer	17J-1008	400 adults	6/30/27
Chinook/ Andrew Creek	Fish Creek	ET, Transfer	17J-1009	1 million eggs	6/30/27
Coho/ Fish Creek	MSH	ET, Release	12J-1012	1.5 million eggs	6/30/31
Coho/ Fish Creek	FC to MSH to Gastneau Channel	ET, Transfer, Release	23J-1002	300,000 eggs	07/01/25
Coho/ Fish Creek	Thane Net Pens	Transfer, Release	13J-1015	1.2 million smolt	12/31/28
Rainbow Trout/ Swanson River	WJHH to MSH to Twin Lakes	Transfer, Release	16J-1001	50,000 eggs/ 15,000 catchables	12/31/25
Rainbow Trout/ Swanson River	WJHH to MSH to Mendenhall Ponds	Transfer, Release	16J-1002	50,000 eggs/ 4,000 catchables	12/31/25

Note: ET = Egg take.

[1]Release locations within the Juneau Area are Gastineau Channel, Fish Creek, Auke Bay, and Lena Cove.

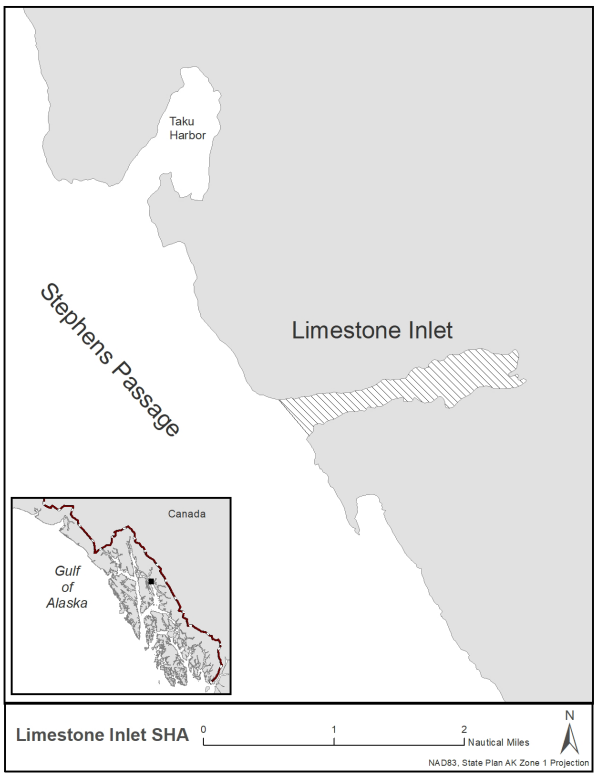

Figure 1. Limestone Inlet SHA.

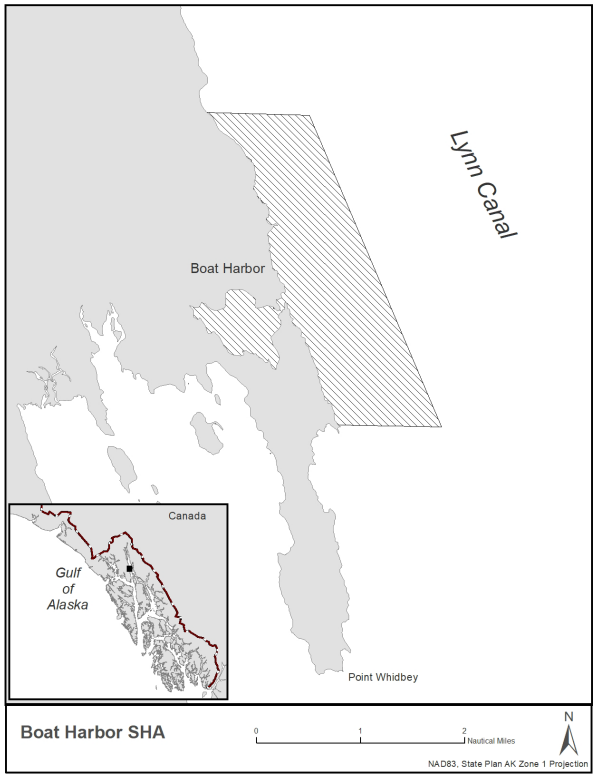

Figure 2. Boat Harbor SHA.

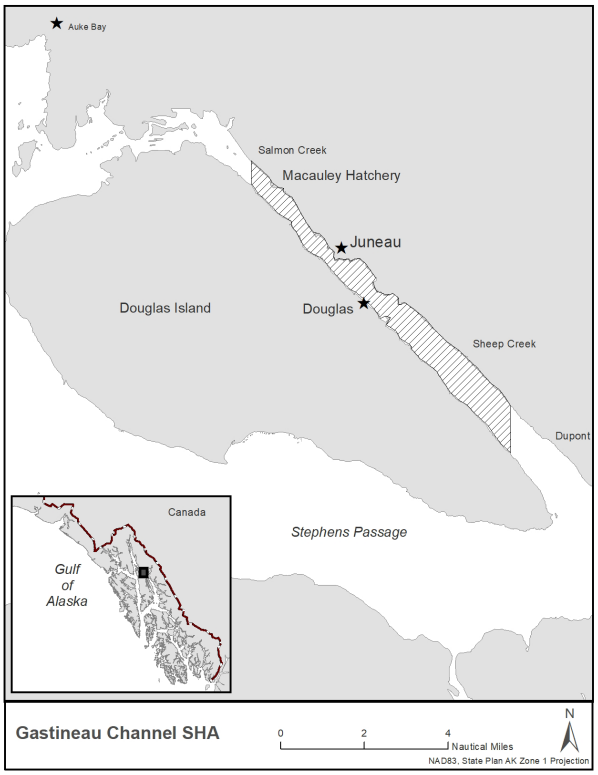

Figure 3. Gastineau Channel SHA.

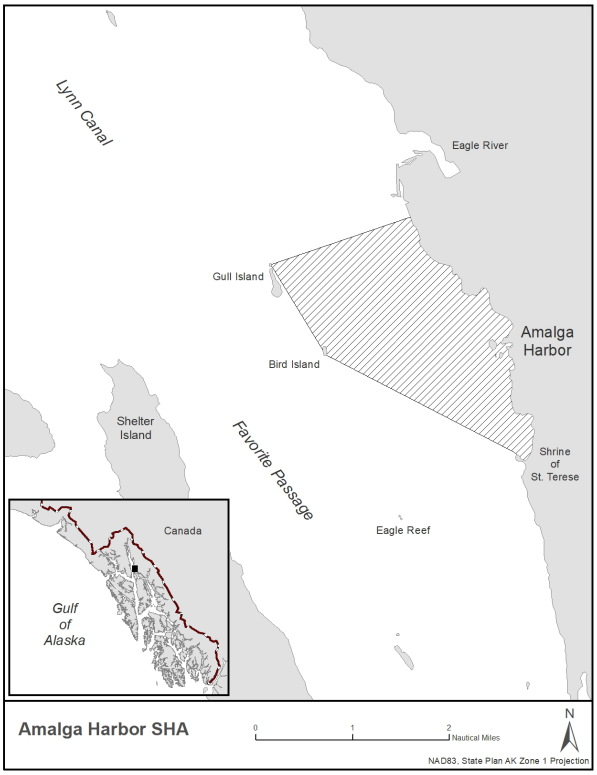

Figure 4. Amalga Harbor SHA.

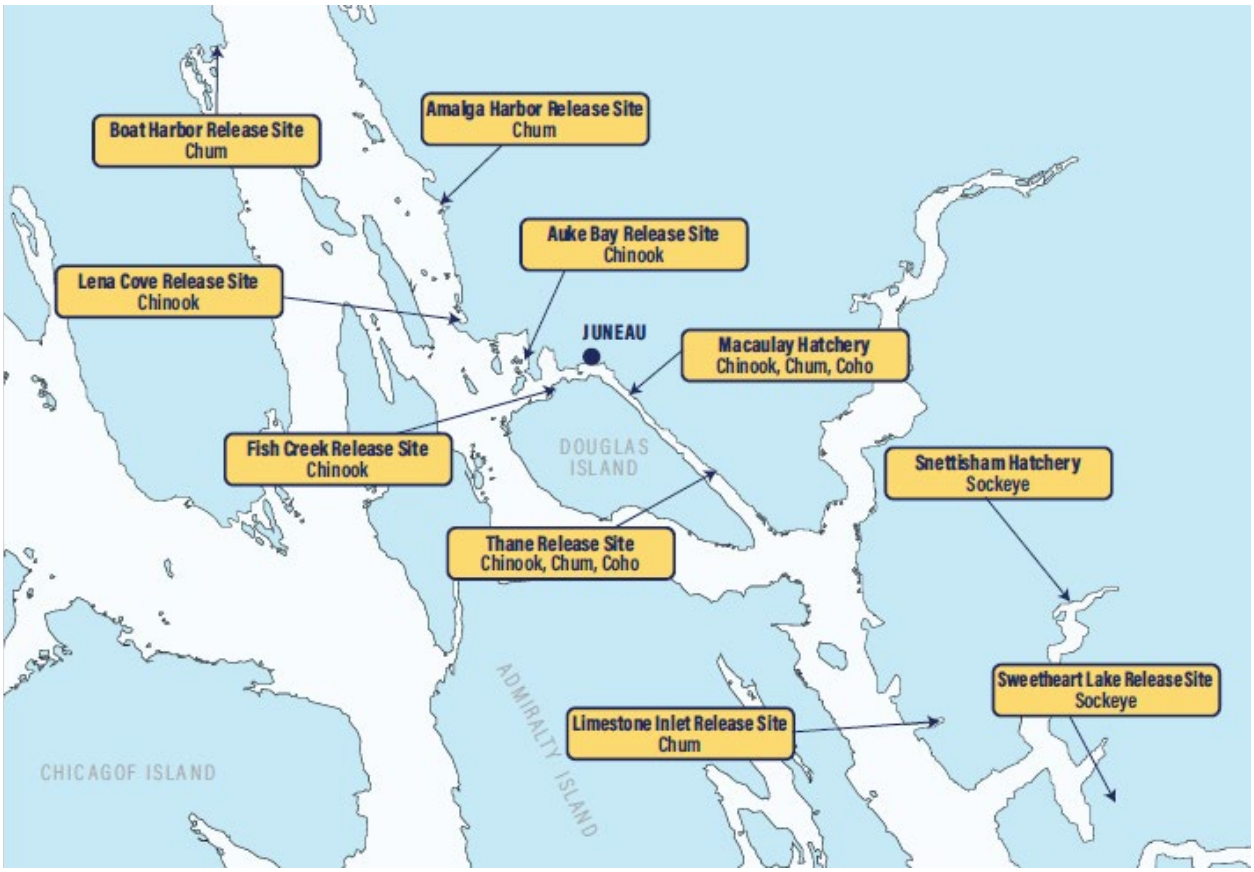

Figure 5. DIPAC Hatcheries and Domestic Release Sites.
Chum & Coho – MSH & Thane = *Gastineau Channel Release*
Chinook – Lena Cove, Auke Bay, Fish Creek Pond, MSH & Thane = *Juneau Area Release*