

ADF&G

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**Southern Southeast Alaska Comprehensive Salmon
Plan: 1995 Update and 5-Year Action Plan for
Salmon Enhancement and Rehabilitation**

by

ADF&G Private Nonprofit Program Staff

December 1996

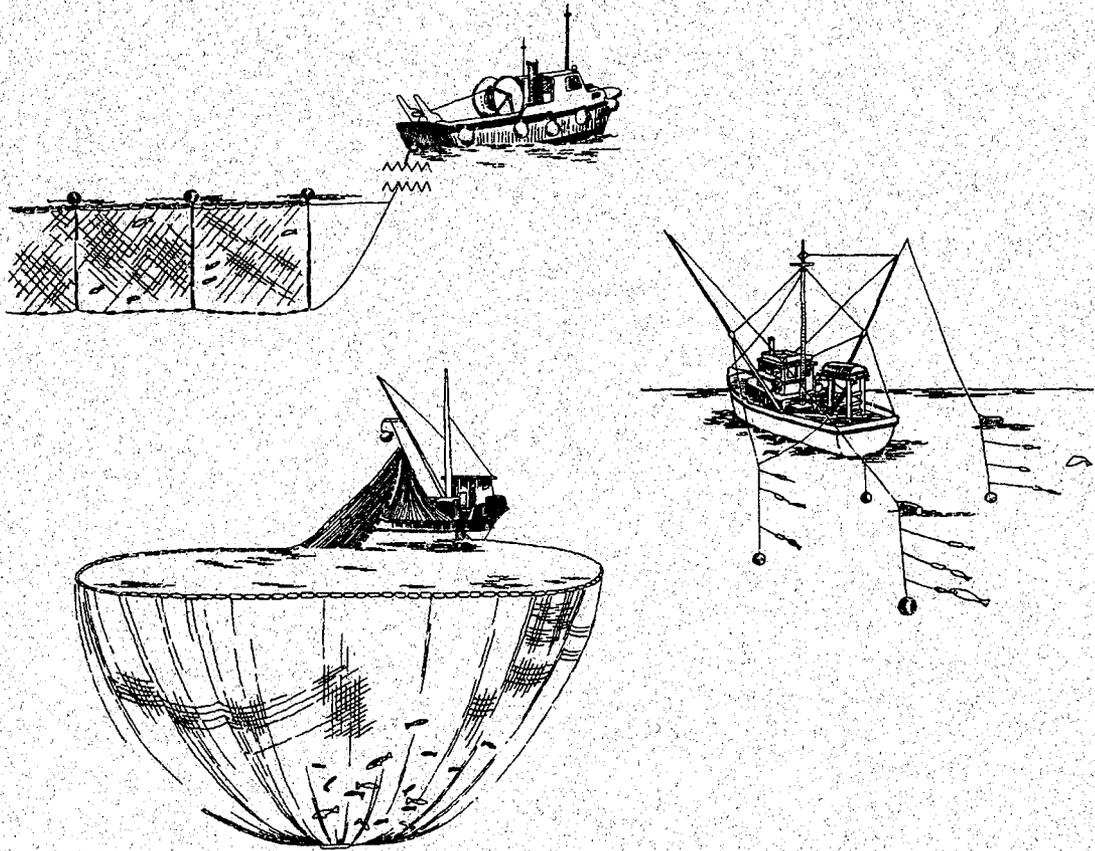
Alaska Department of Fish and Game

Division Commercial Fisheries



SOUTHERN SOUTHEAST ALASKA COMPREHENSIVE SALMON PLAN

1995 Update and 5-Year Action Plan for Salmon Enhancement and Rehabilitation



**Prepared by PNP Program Staff of ADF&G for the
Southern Southeast Regional Planning Team for
Frank Rue, Commissioner, ADF&G**

Alaska Department of Fish and Game
Commercial Fisheries Management and Development Division
P.O. Box 25526
Juneau, AK 99802-5526

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SECTION 1.
INTRODUCTION

Background

The 1995 annual update to the Comprehensive Salmon Plan for southern southeast Alaska represents the ninth time the Phase II goals have been addressed in the planning process by the Southern Southeast Regional Planning Team (SSERPT). This document contains references to previous updates, as well as the original Phase I (March 1981) and Phase II (September 1983) Comprehensive Plans. This update was prepared by staff from the Alaska Department of Fish and Game (ADF&G) Private Nonprofit (PNP) Program.

1995 Planning Process

The mission of the comprehensive salmon plan is "to promote through sound biological practices, activities to increase salmon production in southeast Alaska for the maximal social and economic benefits of the users consistent with the public interest." In accordance with this mission the SSERPT prioritized rehabilitation and enhancement activities in the region, and these recommended activities are incorporated into the Phase II plan and subsequent updates.

The SSERPT currently meets at least twice each year. The fall meeting of the team provides team members with the opportunity to review and comment or make recommendations regarding (1) the previous field season activities; (2) PNP hatchery permit applications (when submitted); (3) PNP permit alteration requests (when submitted); (4) Enhancement and rehabilitation project status reports; (5) draft of the current year's Phase II update; and (6) issues impacting the enhancement and rehabilitation program.

The spring meeting of the team provides an opportunity to review, comment, or make recommendations regarding (1) PNP hatchery annual reports; (2) current year's draft annual management plans for hatcheries in the region; (3) PNP hatchery permit applications and permit alteration requests; (4) issues directly and indirectly impacting or related to the fishery enhancement program; and (5) new project proposals. If proposed projects are endorsed by the SSERPT, they are included in the next Phase II update. These projects are then prioritized by the SSERPT.

1995 Progress Report

This update reports on hatchery production, current status of enhancement and rehabilitation projects, and implementation of new projects in southern Southeast Alaska for 1995. It is intended to provide current information on hatchery releases, adult returns, hatchery contributions to common property fisheries, and project status.

Section 2 of the 1995 update includes tables that identify the actual and projected enhancement contributions to the southern southeast Alaska salmon harvest by species, including steelhead. Following each summary table, individual project tables are listed that track and document the yearly production of that species from each facility.

Section 3 of the 1995 update includes the following information: (1) data concerning commercial harvest of hatchery and wild salmon from 1974 to 1995 for fishing districts 101-108, 150, and 152; (2) gap analysis; and (3) status of projects proposed in previous Phase II updates. The definitions and explanations of table categories listed below illustrate how standard "FRED" assumptions will be applied to analyze the production from hatcheries and enhancement projects.

While chinook salmon production is still a priority for southern Southeast Alaska, mitigation for harvest losses to gear groups in Southeast Alaska directly caused by implementation of the U.S./Canada Pacific Salmon Treaty has been provided through federally funded enhancement projects. Section 4 of this update provides a narrative and associated tables that reflect the current status of these projects, which were designed to produce additional chinook, sockeye, coho, and chum salmon for harvest in Southeast Alaska.

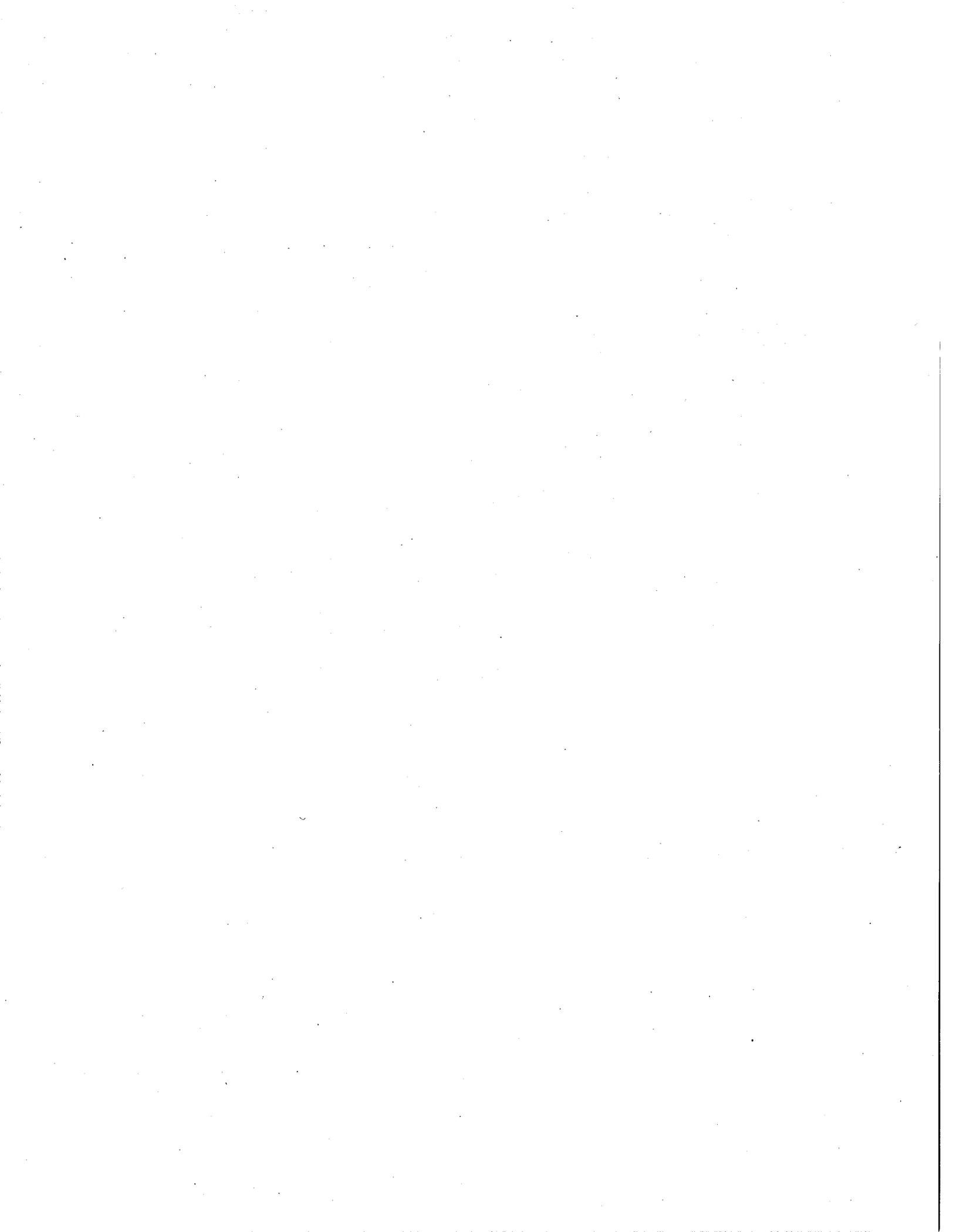
Definitions

1. Projected common property harvest - Assumed harvest rate times total return (chinook "jacks" not included).
2. Projected total return - Assumed survival to adult times number of smolts or fry released.
3. Escapement - Includes brood stock and cost-recovery fish.
4. Production basis - Number of "green" eggs permitted.
5. Assumed percentage survival to smolts - FRED Standard Assumption.
6. Number of smolts or fry - Production basis times assumed survival to smolt or fry release.
7. Projected total return - Assumed survival of smolts times real or projected past harvest rates times number of smolts.
8. Assumed or actual harvest rate - Average of past harvest rates, if available.

Table Explanations

1. Production basis - number of "green" eggs permitted to facility.
2. Assumed percentage survived to smolts or fry - "FRED" standard assumption.
3. Projected number of smolts - Production basis times assumed percentage survival to smolts.
4. Projected total return - Assumed percentage survival to smolts times number of smolts.
5. Assumed or actual harvest rate - Average of past harvest rate.
6. Common property harvest - Harvest rate times total return.

Unfortunately, production for hatcheries that have not followed a consistent age-group release pattern cannot be projected in the format presented here. If a facility releases only two life stages (i.e., smolts and fry), production data can be projected in the tables through each life stage; however, when a hatchery releases three or more life stages i.e., fry, fingerlings, presmolts, smolts) without consistent quantification of numbers of fish or percentages of releases, the assumptions concerning returns, survivals, and harvest rates cannot be applied or projected in the tables. Although some hatcheries may have infrequently deviated from their normal pattern of life-stage releases for experimental purposes, such deviations are relatively minor factors, having little or no effect on survival calculations, because production has been calculated based on the traditional life stage at which each species is released (e.g., smolt for chinook salmon).



SECTION 2.

SOUTHERN SOUTHEAST ALASKA ENHANCEMENT PROJECTS

CHINOOK SALMON

1995

TABLE 1. 1995 STATUS OF SOUTHERN SOUTHEAST HATCHERIES - SUMMARY

CHINOOK SALMON

PROJECTED FULL PRODUCTION

CURRENT PRODUCTION

OPERATIONAL PROJECTS (HATCHERY)	UNIT	PRODUCTION BASIS (EGGS)	TOTAL RETURN	COMMON PROPERTY HARVEST	RETURN YEAR	TOTAL RETURN	COMMON PROPERTY HARVEST
WHITMAN LAKE	KETCHIKAN	1,500,000	28,933	12,152	1995	3,190	1,662
NEETS BAY	KETCHIKAN	4,000,000	74,400	29,537	1995	2,247	951
DEER MOUNTAIN	KETCHIKAN	133,000	1,995	1,110	1995	726	550
CRYSTAL LAKE	PETERSBURG/ WRANGELL	2,500,000	46,500	38,781	1995	10,033	9,402
TAMGAS CREEK	KETCHIKAN	3,000,000	55,800	13,806	1995	1,000	494
BELL ISLAND	KETCHIKAN	65,000	N/A	N/A	N/A	N/A	N/A
TOTAL OF CURRENT PROJECTS		11,198,000	207,628	95,386	1995	17,196	13,059

TABLE 2. WHITMAN LAKE HATCHERY -- SSRAA
UNIT: 5 - KETCHIKAN
CHINOOK SALMON

PRODUCTION

RELEASE DATA					RETURN DATA				
BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RELEASE SITE	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1987	1,421,000	SMOLT SMOLT	55,000	Herring Cove Carroll Inlet	1989	1,995	1,732	3,727	46.5%
			703,000		1989	22	4,981	5,003	99.6%
1988	1,610,000	SMOLT SMOLT	75,400	Herring Cove Carroll Inlet	1990	2,270	4,427	6,697	66.1%
			1,004,800		1990	10,829	10,712	21,541	50.3%
1989	1,559,500	SMOLT SMOLT	73,800	Herring Cove Carroll Inlet	1990	2,000	4,600	10,931	42.1%
			1,104,200		1991	14,643	13,700	28,013	47.7%
1990	3,263,800	SMOLT SMOLT	106,200	Herring Cove Carroll Inlet	1991	0	15,301	15,301	100.0%
			1,218,000		1991	1,730	1,565	3,295	47.4%
1991	4,324,616	SMOLT SMOLT	109,000 ¹	Herring Cove Carroll Inlet	1992	496	223	719	30.0%
			1,062,000 ¹		1992	4,426	4,941	9,367	52.8%
1992	1,700,000 ²	SMOLT SMOLT SMOLT	123,164	Herring Cove Carroll Inlet	1993	251	159	410	38.8%
			1,147,826		1993	1,725	1,506	3,231	46.6%
			316,100 ³						
1993	910,850	SMOLT SMOLT	233,623	Herring Cove Carroll Inlet	1994	235	154	389	39.6%
			513,323		1994	200	1,772	1,972	89.9%
1994	1,032,474 ⁴	SMOLT SMOLT		Herring Cove Carroll Inlet	1995	326	144	547	26.3
					1995	632	1,518	2,643	57.4
1995	1,524,267								

AVERAGES

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	EGGS	ASSUMED % SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS	1,500,000	62%	964,444	3%	28,933	42.0 (avg)	12,152

¹High mortality because of pipeline failure in 1991.

²A significant mortality occurred during eyed stage, when antifungal formalin treatment was inadvertently applied for several hours (approx. 18% mortality).

³320,407 smolts received from Crystal Lake Hatchery; 1994 harvest rate at EWC is not reflected in the harvest rate averages.

⁴312,474 eggs from Medveje Hatchery and 200,600 eggs from Little Port Walter.

TABLE 3. NEETS BAY -- SSRAA
 UNIT: 5 - Ketchikan
 CHINOOK SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1987	1,252,000	SMOLT	889,200 ¹	1989	18,055	8,093	26,148	31.0%
1988	2,569,000	SMOLT	1,608,000	1990	11,876	3,341	15,217	22.0%
1989	1,454,400	SMOLT	388,200	1991	5,100	4,395	9,495	46.2%
1990	1,431,189	SMOLT	728,460	1992	5,869	3,089	8,958	34.5%
1991	1,031,800 ²	SMOLT	377,374	1993	8,075	3,023	11,098	27.2%
1992	788,000	SMOLT	214,980	1994	2,218	2,091	4,309	48.5%
1993	PROGRAM			1995	1,109	951	2,247	42.3%
	DISCONTINUED							

5-YEAR AVERAGE

39.7%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLTS	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 4,000,000	62%	2,489,000	3%	74,400	39.7%	29,537

¹ Due to storm damage to a net pen, approximately 190,000 (15 gram) fish were released in November, 1988.

² Eggs received eyed from Whitman Lake Hatchery.

TABLE 4. DEER MOUNTAIN
UNIT: 5 - Ketchikan
CHINOOK SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
				1986	1,360	1,040	2,400	43.3%
1986	1,025,000	0-SMOLT 1-SMOLT ¹	302,000 121,000	1987	550	295	845	34.9%
1987	322,000	1-SMOLT ²	191,089	1988	328	192	520	36.9%
1988	366,000	1-SMOLT	151,629	1989	983	558	1,541	36.2%
1989	361,000	1-SMOLT	153,530	1990	637	714	1,351	52.8%
1990	453,000	1-SMOLT	133,000	1991	820	482	1,302	37.0%
1991	305,000	1-SMOLT	80,000	1992	2,674	3,445	6,119	56.3%
1992	257,000	1-SMOLT	?????	1993	565	586	1,151	51.1%
1993	273,691	1-SMOLT	98,655	1994	455	618	1,073	57.6%
1994	340,674 ³			1995	176	550	726	75.8%
1995	225,220							

5-YEAR AVERAGE

55.6%

PROJECTED PRODUCTION AT FULL CAPACITY (IF ONLY AGE 1.2 AND UP CHINOOK SALMON ARE PRODUCED).

PRODUCTION BASIS	EGGS	ASSUMED % SURVIVAL TO SMOLT	#OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
	133,000	75%	99,750	2%	1,995	55.6%	1,110

¹ Includes 70,226 released from hatchery (1.5% adult return throughout age 1.3) and 50,723 released at remote site (Big Salt)(0.1% survival through age 1.3).

² Includes 151,000 release from Deer Mountain Hatchery (.07% return at age 1.2) and 24,304 released at Thorne Bay (0.1% survival at age 1.2).

³ Includes 240,674 from Little Port Walter and 100,000 from Ketchikan Creek.

TABLE 3. CRYSTAL LAKE -- SSRAA
 UNIT: 3 - Petersburg - Wrangell
 CHINOOK SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	RELEASE SITE	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	RETURN SITE	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1989	1,656,000 20,000 sent to other hatcheries 34,700 eyed eggs from Burnett	CLH EWC Harding River	SMOLT SMOLT FED FRY	434,200 399,600 FED FRY	1989	CLH EWC (SSRAA) OHMER CK FARRAGUT HARDING	5,600 N/A 475 4 1	5,290 2,960 705 190 6	10,890 2,960 1,180 184 7	60.1%
1990	1,714,000 2,928,000 other hatcheries	CLH EWC (SSRAA) SNETTISHAM	SMOLT SMOLT EYED EGGS	520,000 368,000 323,000	1990	CLH EWC (SSRAA) OHMER CK FARRAGUT HARDING	7,920 N/A 80 N/A N/A	8,940 11,800 375 84 45	16,860 11,800 455 84 45	72.6%
1991	1,701,000 2,307,000 other hatcheries 109,000 58,000	CLH EWC (SSRAA) SNETTISHAM FARRAGUT HARDING	SMOLT SMOLT EYED EGGS FED FRY FED FRY	309,000 66,500 41,600	1991	CLH EWC (SSRAA) OHMER CK FARRAGUT HARDING	3,550 N/A N/A 8 3	13,700 12,720 190 18 55	17,250 12,720 190 26 58	88.2%
1992	2,125,000	CLH EWC (SSRAA) SNETTISHAM	SMOLT SMOLT	540,000 316,100	1992	CLH EWC (SSRAA) OHMER CK FARRAGUT HARDING	2,680 N/A N/A 1	9,090 8,495 715 4 18	11,770 8,495 715 5 18	87.2%
1993	2,180,000	SNETTISHAM	SMOLT	729,942	1993	CLH EWC (SSRAA) OHMER CK	1,827 N/A 146	4,681 9,014 875	6,508 9,014 1,021	88.1%
1994	2,178,903	Earl West Cove Snettisham Crystal Lake Hatchery	SMOLT SMOLT SMOLT	320,000 280,000 890,000	1994	CLH EWC (SSRAA) OHMER CK HARDING FARRAGUT	4,460 N/A 130 N/A	1,240 8,900 200 4 13	5,700 8,900 330 4 13	69.3%
1995	2,740,000	Earl West Cove Crystal Lake	SMOLT SMOLT	320,000 660,000	1995	Crystal Creek EWC (SSRAA)	631 N/A	3,540 5,862	4,171 5,862	84.9%

3-Year Average

83.4%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO 1-SMOLT	# OF 1-SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ASSUMED HARVEST RATE	C.P. HARVEST
2,500,000	62%	1,550,000	3%	46,500	83.4%	38,781

TABLE 6. TAMGAS
UNIT: 5 - Ketchikan
CHINOOK SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1986	3,922,000	0-SMOLT 1-SMOLT	2,111,700 164,400	1986	155	276	431	64.0%
1987	5,075,000	0-SMOLT 1-SMOLT	1,756,300 888,900	1987	1,000	1,825	2,825	64.6%
1988	2,614,000	1-SMOLT	1,131,800	1988	1,709	1,813	3,522	51.5%
1989	2,800,000	0-SMOLT 1-SMOLT	721,000 670,900	1989	1,102	1,302	2,404	54.2%
1990	1,400,000	0-SMOLT 1-SMOLT	871,000 527,100	1990	2,430	2,549	4,979	51.2%
1991	950,000	0-SMOLT 1-SMOLT	287,000 339,000	1991	4,700	3,507	8,207	42.7%
1992	1,538,000	0-SMOLT 1-SMOLT	893,000 284,000	1992	4,245	1,350	5,595	24.1%
1993	1,523,000	0-SMOLT 1-SMOLT	996,400 540,000	1993	1,801	800	2,601	30.8%
1994	1,500,000	0-SMOLT 1-SMOLT	395,000 167,158	1994	1,678	712	2,390	29.8%
1995	1,560,000	0-SMOLT	964,000	1995	506	494	1,000	49.4%

5-YEAR AVERAGE

35.4%

PROJECTED PRODUCTION AT FULL CAPACITY (IF RELEASED AS 1-SMOLT).

PRODUCTION BASIS	ASSUMED SURVIVAL TO 1-SMOLT	# OF 1-SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 1,600,000	62%	1,000,000	3%	30,000	35.4%	10,620

PROJECTED PRODUCTION AT FULL CAPACITY (IF RELEASED AS 0-SMOLT).

PRODUCTION BASIS	ASSUMED SURVIVAL TO 0-SMOLT	# OF 0-SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 780,000	77%	600,000	1.5%	9,000	35.4%	3,186

¹ Metlakatla Indian Community fisheries staff is currently evaluating whether 0-smolt or 1-smolt chinook salmon are the most effective and economical to produce.

TABLE 7. BELL ISLAND HATCHERY
 UNIT: 5 - Ketchikan
CHINOOK SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1989		SMOLTS ¹	5,853	N/A	N/A	N/A	N/A	N/A
1990 ²		SMOLTS ¹	5,308	N/A	N/A	N/A	N/A	N/A
1993		SMOLTS ¹	5,659	N/A	N/A	N/A	N/A	N/A
1994	NO DATA							
1995	NO DATA							

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PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED % SURVIVAL TO SMOLT	# OF SMOLTS	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 65,000	62%	40,300	3%	1,209	N/A	N/A

¹Smolts purchased from Deer Mountain Hatchery.

²Annual reports for 1991 and 1992 were not submitted.

SOUTHERN SOUTHEAST ALASKA ENHANCEMENT PROJECTS

COHO SALMON

1995

TABLE 8. 1995 STATUS OF SOUTHERN SOUTHEAST HATCHERIES -- SUMMARY

COHO SALMON

PROJECTED FULL PRODUCTION

CURRENT PRODUCTION

OPERATIONAL PROJECTS	UNIT	PRODUCTION BASIS	TOTAL RETURN	COMMON PROPERTY HARVEST	RETURN YEAR	TOTAL RETURN	COMMON PROPERTY HARVEST
WHITMAN LAKE HATCHERY	KETCHIKAN	EGGS 3,400,000	105,400	98,865	1995	35,407	31,777
NEETS BAY HATCHERY	KETCHIKAN	EGGS 5,000,000	155,000	116,095	1995	130,293	98,512
KLAWOCK HATCHERY	WEST COAST/ POW ISLAND	EGGS 5,000,000	308,000	203,280	1995	12,219	1,446
DEER MOUNTAIN HATCHERY	KETCHIKAN	EGGS 379,700	15,200	10,792	1995	8,044	5,496
CRYSTAL LAKE HATCHERY	PETERSBURG/ WRANGELL	EGGS 415,000	5,580	4,029	1995	1,213	2,507
TAMGAS HATCHERY	KETCHIKAN	EGGS 8,000,000	248,000	184,512	1995	251,325	199,325
TOTAL OF CURRENT PROJECTS			845,450	617,573	1995	438,501	339,063

TABLE 9. WHITMAN LAKE - SSRAA

UNIT: 5 - Ketchikan

COHO SALMONPRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RELEASE SITE	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1988	4,061,000 ¹	SMOLTS	100,250	Naket Inlet	1989	0	2,766	2,766	100%
			300,200	Herring Cove	1990	629	7,539	7,988	94.3%
			223,000	Earl West Cove	1990	5,841	17,120	22,961	74.6%
			983,000	Neets Bay	1990	8,190	31,380	39,570	79.4%
					1991	8,733	40,245	48,948	82.0%
1989	1,138,000	SMOLTS	304,160	Herring Cove	1992	6,328	21,827	28,155	77.5%
			214,198	Earl West Cove	1992	1,189	34,344	35,533	96.7%
			99,982	Naket Inlet	1992	0	17,437	17,437	100%
1990	1,811,000	SMOLTS	114,500	Nakat Inlet	1993	0	12,810	12,810	100%
			227,400	Earl West Cove	1993	0	27,219	27,219	100%
			304,300	Whitman Lake	1993	3,189	11,214	14,403	77.9%
1991	5,389,800	SMOLTS	92,200	Nakat Inlet	1994	0	7,110	7,110	100%
			203,500	Earl West Cove	1994	0	39,247	39,247	100%
			300,000	Herring Cove					
1992	4,388,000 ²	SMOLTS	301,088	Whitman Lake	1994	2,008	26,470	28,478	93.0%
			94,626	Nakat Inlet					
			189,539	Earl West Cove					
1993	2,493,000	SMOLTS	1,191,068	Neets Bay	1995	N/A	12,782	12,782	100%
			201,998	Earl West Cove					
			198,898	Nakat Inlet					
			301,666	Herring Cove					
1994	2,388,400	SMOLTS							
1995									

5-YEAR AVERAGE

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLTS	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 3,400,000	62%	2,108,000	5%	105,400	93.8	98,865

¹ A total of 1,227,000 eyed eggs and pre-smolts were transferred to Neets Bay.² A total of 1,961,000 eyed eggs were transferred to Neets Bay.³ Approximately 1.0 million coho transported to Neets Bay for release. Overwinter netpen mortalities were high.

TABLE 10. NEETS BAY -- SSRAA
COHO SALMON

PRODUCTION TABLE

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1987	1,138,000 ¹	SMOLTS	2,141,700 ²	1989	2,730	15,357	18,087	84.9%
1988	1,850,000 ³	SMOLTS	2,204,000	1990	82,434	217,810	291,630	71.1%
1989	3,300,000	SMOLTS	2,216,000	1991	108,000	183,745	288,982	63.1%
1990	414,000	SMOLTS	2,305,000 ⁴	1992	136,032	250,418	386,450	64.8%
1991	2,411,000	SMOLTS	2,676,925	1993	51,100	212,628	263,728	80.6%
1992	2,143,000 ⁵	SMOLTS	2,314,795	1994	17,850	164,381	182,231	90.2%
1993	2,150,350	SMOLTS	2,672,460	1995	25,078	98,512	130,293	75.6%
1994	1,537,000							
1995	640,000							

5-YEAR AVERAGE

74.9%

PROJECTED PRODUCTION AT FULL CAPACITY.

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLTS	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 5,000,000	62%	3,100,000	5%	155,000	74.9%	116,095

¹ 931,000 eyed eggs received from Whitman Lake. ² 296,000 smolt transported from Whitman Lake to Neets Bay in October, 1988. 460,000 smolt transported from Whitman Lake to Neets Bay in April, 1989.
³ 1,500,000 eyed eggs from Whitman Lake does not include 550,000 pre-smolts received from them in September, 1989. Also, 750,000 smolts will be transported from Whitman Lake for a 1990 spring release.
⁴ 400,000 eyed eggs, 1,187,000 presmolts, and 697,000 smolts received from Whitman Lake. ⁵ Number is approximate; eggs will be delivered in January 1993.

TABLE 11. KLAWOCK
 UNIT: 2 - West Coast of Prince of Wales Island
COHO SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	RELEASE ¹ SITE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1986	8,000 2,240,000	Cable Creek Klawock River Tunga Lake	6,516 1,005,000 200,000	1989	17,000	77,330	94,330	81.9%
1987	1,900,000 83,000	Klawock River Tunga Lake Cable Creek	1,076,524 221,736 20,000	1990	18,815	78,252	96,767	80.8%
1988	2,040,000 59,000 22,000	Klawock River Tunga Lake Cable Creek Rio Roberts	1,162,725 174,804 47,048 4,112	1991	5,453	66,429	71,882	92.4%
1989	1,561,600 82,617 56,000	Klawock River Cable Creek Rio Roberts	1,239,754 80,386 25,262	1992	12,595	51,883	64,478	80.5%
1990	1,366,000	Klawock River	891,000	1993	15,911	50,732	66,643	76.1%
1991	386,000 65,000 67,000	Klawock River Rio Roberts Cable Creek	67,400	1994	12,963	29,171	42,134	69.2%
1992	496,000	Klawock R.(93) Klawock R.(94)	485,941 259,595	1995	10,773	1,446	12,219	11.8%
1993	510,000	Old Franks Lake	96,632					
1994	3,196,474	Klawock River	1,897,326					
1995	495,603							

5-YEAR AVERAGE

66.0%

PROJECTED PRODUCTION AT FULL CAPACITY (IF SMOLT ARE PRODUCED).

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 5,000,000	61.6%	3,080,000	10%	308,000	66.0%	203,280

¹Klawock Hatchery coho are either released as fingerlings or pre-smolts, dependent upon the site.

UNIT: 5 - Ketchikan
COHO SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	YEAR RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
N/A	N/A	PRE-SMOLT	21,243 ¹	1986	N/A	500	988	1,448	68.2%
1986	66,000	SMOLT	7,710	1988	1989	180	379	559	67.8%
1987	328,000	FINGERLINGS SMOLT	108,000	1988	1990	25	125	150	N/A
			128,000 ²	1989	1990	6,676	5,592	12,628	47.1%
1988	248,000	FINGERLINGS SMOLT	85,000	1989	1991	12	90	102	N/A
			136,181	1990	1991	3,117	10,404	13,521	76.9%
1989	227,000	SMOLT	117,120	1991	1992	2,987	5,833	8,820	66.1%
1990	244,000	SMOLT	162,000	1992	1993	1,702	4,216	5,918	71.2%
1991	212,000	PRE-SMOLT	103,000	1992	1994	2,328	6,071	8,399	72.3%
1992	212,000	PRE-SMOLT	90,000	1993	1995	2,548	5,496	8,044	68.3%
1993	163,714	PRE-SMOLT SMOLT	76,483	1994					
			66,484	1995					
1994	152,000								
1995	176,000								

5-YEAR AVERAGE

71.0%

PROJECTED PRODUCTION AT FULL CAPACITY (IF ONLY COHO SALMON SMOLT WERE PRODUCED).

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 379,700	50%	190,000	8%	15,200	71.0%	10,792

¹ Pre-smolt release at Ward Lake.

² Includes Ketchikan Creek smolt and Ward Lake pre-smolt.

TABLE 13. CRYSTAL LAKE
UNIT: 3 - Petersburg - Wrangell
COHO SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RELEASE SITE	RETURN YEARS	ESCAPEMENT	RETURN SITE	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1986	770,000	FRY	463,000	CLH	1986	3,300	CLH OHMER CK	14,200	17,500	87.6%
		SMOLT	89,800	CLH						
	17,000	SMOLT	8,000	Petersburg						
	77,000	FED FRY	15,300	St. John's						
		FED FRY	64,000	Slippery C.		N/A	9,000	9,000		
1987	933,000	FRY	592,500	Crystal C.	1987	2,967	CLH	4,520	7,487	60.4%
		SMOLT	108,000	Crystal C.						
	106,000	FED FRY	36,700	St. John's						
	176,000	FED FRY	145,000	Slippery C.						
1988	522,500	EYED EGGS	10,400	UNIV IDAHO	1988	3,861	CLH	2,700	6,561	41.2%
		FRY	346,000	CLH						
	114,000	SMOLT	96,300	Crystal C.						
	465,000	FED FRY	76,700	St. John's						
		FED FRY	378,000	Slippery						
1989	519,000	EYED EGGS	10,000	UNIV IDAHO	1989	2,350	CLH	3,450	5,800	62.6%
		FRY	366,000	CLH						
		SMOLT	78,800	Crystal C.						
						N/A	24	24		
						N/A	455	455		
1990	574,000	FRY	412,000	CLH	1990	2,130	CLH	4,000	6,130	68.9%
		SMOLT	83,200	CLH						
						N/A	36	36		
						N/A	680	680		
1991	434,000	FRY	292,000	CLH	1991	3,160	CLH	3,460	6,620	55.8%
		SMOLT		CLH						
						N/A	27	27		
						N/A	500	500		
1992	566,000	SMOLT	480,000	CLH	1992	1,475	CLH	3,763	5,238	82.9%
						N/A	95	95		
						N/A	3,300	3,300		
1993	440,000	FED FRY	174,458	CLH	1993	773	CLH	3,530	4,349	83.3%
						N/A	46	46		
1994	471,437	FED FRY	210,000	CLH	1994	1,800	CLH	17,520	19,320	90.7%
1995	260,000				1995	1,294	CLH	1,213	2,507	48.4%

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AVERAGE 72.2%

PROJECTED PRODUCTION AT FULL CAPACITY (IF RELEASED AS SMOLT).

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 125,000	80%	100,000	5%	5,000	72.2%	3,610

PROJECTED PRODUCTION AT FULL CAPACITY (IF RELEASED AS FRY).

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED % SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 290,000	80%	232,000	5%	11,600	5%	580	72.2%	419

TABLE 14. TAMGAS
UNIT: 5 - Ketchikan

COHO SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1986	10,200,000	1-SMOLT	7,308,500	1986	82,535	75,580	158,115	47.8%
1987	8,550,000	1-SMOLT	6,827,700	1987	12,011	20,988	32,999	63.6%
1988	3,500,000	1-SMOLT	3,226,900	1988	14,863	20,293	35,156	57.7%
1989	8,500,000	1-SMOLT	5,239,500	1989	54,132	95,709 ¹ 28,859 ²	149,883	63.9%
1990	6,700,000	1-SMOLT	6,159,600	1990	21,723	58,860	50,582	73.0%
1991	8,800,000	1-SMOLT	3,599,300	1991	61,500	100,117	161,617	61.9%
1992	5,100,000	1-SMOLT	3,208,065	1992	39,000	111,000	150,000	74.0%
1993	4,062,922	FRY 1-SMOLT	1,400,000 2,020,000	1993	13,700	75,000	88,700	84.6%
1994	4,700,000	FRY 1-SMOLT	1,900,000 2,071,829	1994	21,272	56,179	77,457	72.5%
1995	4,500,000			1995	52,000	199,325	251,325	79.3%

5-YEAR AVERAGE

74.4%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 8,000,000	62%	4,960,000	5%	248,000	74.4%	184,512

¹ Metlakatla fishery only, based on CWT expansions.

² Traditional common property fishery, based on CWT expansions.

TABLE 15. BELL ISLAND HATCHERY
UNIT: 5 - Ketchikan

COHO SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1989		SMOLTS ¹	5,411	1992	N/A	855	855	N/A
1991		SMOLTS ¹	5,409	1994	N/A	123	123	N/A
				1995	N/A	160	160	N/A

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PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED % SURVIVAL TO SMOLT	# OF SMOLTS	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 16,800	62%	10,416	5%	520	N/A	N/A

¹ Purchased from Deer Mountain Hatchery.

SOUTHERN SOUTHEAST ALASKA ENHANCEMENT PROJECTS

SOCKEYE SALMON

1995

TABLE 16. 1995 STATUS OF SOUTHERN SOUTHEAST HATCHERIES -- SUMMARY

SOCKEYE SALMON

PROJECTED FULL PRODUCTION

CURRENT PRODUCTION

OPERATIONAL PROJECTS	UNIT	PRODUCTION BASIS		TOTAL RETURN	COMMON PROPERTY HARVEST	RETURN YEAR	TOTAL RETURN	COMMON PROPERTY HARVEST
BEAVER FALLS HATCHERY-SSRAA	KETCHIKAN	EGGS	1,500,000	(0-SMOLTS) 120,000	79,920	1995	129,939	68,567
		EGGS	9,500,000	(FED FRY) 76,950	51,249			
KLAWOCK HATCHERY	WEST COAST/POW ISLAND	EGGS	20,000,000	456,886	179,556	1995	16,427	458
TOTAL OF CURRENT PROJECTS				576,886 ¹	259,476 ¹	1995	146,366	69,025

¹ "TOTAL RETURN" and "COMMON PROPERTY HARVEST" totals of current projects for Beaver Falls calculated for fish released as 0-smolts.

TABLE 17. BEAVER FALLS - SSRAA

UNIT: 5 - Ketchikan

SOCKEYE SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RELEASE SITE	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1989	1,018,000	FED FRY SMOLT SMOLT	218,000 30,000 367,556	Salmon Lake Shrimp Bay George Inlet	1991	11	125	136	91.9%
1990	2,414,000	FED FRY SMOLT FED FRY FED FRY FED FRY SMOLT	14,550 46,900 450,000 736,753 220,000 261,000	Salmon Lake Shrimp Bay Margaret Lake Virginia Lake Salmon Lake Shrimp Bay	1992	2,538	3,226	5,764	60.0%
1991	5,704,739	FED FRY FED FRY SMOLT FED FRY FED FRY FED FRY	200,000 674,000 925,000 630,100 227,200 484,000	Margaret Lake Virginia Lake Shrimp Bay Salmon Lake Old Franks Hugh Smith Lake	1993	114,861	368,440	483,301	76.2%
1992	4,925,000	UNFED FRY FED FRY FED FRY SMOLT UNFED FRY	354,000 1,017,145 1,102,600 851,000 200,000	Badger Lake Salmon Lake Virginia Lake Shrimp Bay Margaret Lake	1994	133,404	143,743	277,147	51.9%
1993	6,663,700	FED FRY FED FRY ZERO SMOLT FED FRY FED FRY FED FRY PRESMOLT	1,055,365 100,000 760,902 492,821 532,982 644,586 34,257	Virginia Lake Margaret Lake Shrimp Bay Bakewell Lake Badger Lake Hugh Smith Lake Salmon Lake	1995	61,372	68,567	129,939	52.8%
1994	4,092,496	FED FRY PRESMOLT FED FRY FED FRY FRY	373,204 67,425 1,332,638 417,678 344,272	Salmon Lake Salmon Lake Virginia Lake Hugh Smith Lake Badger Lake					
1995	2,864,565								

5-YEAR AVERAGE

66.6%

PROJECTED PRODUCTION AT FULL CAPACITY (IF RELEASED AS FED FRY).

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 9,500,000	81%	7,695,000	10%	769,000	10%	76,950	66.6%	51,249

PROJECTED PRODUCTION AT FULL CAPACITY (IF RELEASED AS 0-SMOLT).

PRODUCTION BASIS	ASSUMED SURVIVAL TO 0-SMOLT	# OF 0-SMOLT	ASSUMED SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 1,500,000	80%	1,200,000	10%	120,000	66.6%	79,920

SOCKEYE SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1987	1,440,000	FRY	592,000	1991	2,600	1,140	3,740	30.4%
1988	3,590,000	FRY	2,475,000	1992	4,649	23,908	28,557	83.7%
1989	918,000	FRY	474,089	1993	5,050	2,805	7,855	35.7%
1990	652,000	FRY PRESMOLTS FINGERLINGS	127,793 19,733 68,053	1994	11,128	8,768	19,896	44.1%
1991	2,058,000	FRY	1,187,000	1995	15,969	458	16,427	2.8%
1992	1,698,000	FRY	480,000					
1993	1,300,000	FRY	532,180					
1994	2,898,000	FRY FED FRY	2,616,462 100,000					
1995	997,500							

AVERAGE

39.3%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED % SURVIVAL TO SMOLT	# OF SMOLTS	ASSUMED SURVIVAL TO ADULT	TOTAL RETURN ¹	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 20,000,000	85.5%	17,100,000	VARIABLE	3,807,383	12%	456,886	39.3	179,556

¹ Total return based on a variable stocking combination of fry, fingerling, presmolts, and smolts.

SOUTHERN SOUTHEAST ALASKA ENHANCEMENT PROJECTS

CHUM SALMON

1995

TABLE 19. 1995 STATUS OF SOUTHERN SOUTHEAST HATCHERIES -- SUMMARY

CHUM SALMON

PROJECTED FULL PRODUCTION

CURRENT PRODUCTION

OPERATIONAL PROJECTS	UNIT	PRODUCTION BASIS	TOTAL RETURN	COMMON PROPERTY HARVEST	RETURN YEAR	TOTAL RETURN	COMMON PROPERTY HARVEST
WHITMAN LAKE HATCHERY	KETCHIKAN	EGGS 45,800,000	705,320	705,320	1995	851,467	851,467
NEETS BAY HATCHERY	KETCHIKAN	EGGS 80,000,000	1,232,000	262,416	1995	1,223,427	158,623
BURNETT INLET HATCHERY	PETERSBURG/ WRANGELL	EGGS 60,000,000	924,000	380,688	1995	219,687	80,900
TAMGAS HATCHERY	KETCHIKAN	EGGS 40,000,000	616,000	243,936	1995	51,000	25,000
TOTAL OF CURRENT PROJECTS			3,477,320	1,592,360	1995	2,345,581	1,115,990

TABLE 20. WHITMAN LAKE -- SSRAA

UNIT: 5 - Ketchikan

CHUM SALMONPRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR ¹	NUMBER EGGS ²	LIFE STAGE @ RELEASE	RELEASE SITE	NUMBER RELEASED	RETURN YEARS	RETURN SITE	ESCAPE-MENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1989 (S) (F)	4,175,000 12,242,000				1990	(S) Nakat Inlet (F) Nakat Inlet (S) Earl West	580 120 1,200	46,452 21,206 9,712	47,032 21,326 10,912	98.1% 99.4% 89.0%
1990 (S)	24,717,337	FRY FRY FRY FRY FRY FRY	Neets Bay Nakat Inlet Nakat Inlet Neets Bay Kendrick Bay Earl West	4,921,800 5,784,000 5,988,000 1,600,000 6,206,000 6,016,000	1991	(S) Earl West (F) Nakat Inlet (S) Nakat Inlet	N/A N/A N/A	31,345 68,190 26,830	31,345 68,190 26,830	100% 100% 100%
1991 (S) (F)	25,680,744 4,398,191	FRY FRY FRY FRY	Nakat Inlet Nakat Inlet Kendrick Bay Earl West Cove	4,118,100 9,664,200 8,020,800 6,030,800	1992	(S) Nakat Inlet (F) Nakat Inlet (S) Earl West	N/A N/A N/A	52,104 82,213 54,874	52,104 82,313 54,874	100% 100% 100%
1992 (S) (F)	23,847,000 8,054,000	FRY FRY FRY FRY	Nakat Inlet Earl West Cove Kendrick Bay Nakat Inlet	8,250,000 7,069,000 8,168,000 7,905,000	1993	(S)Nakat Inlet (F)Nakat Inlet (S)Earl West (S)Kendrick Bay	N/A N/A N/A N/A	55,149 73,614 14,009 24,957	55,149 73,614 14,009 24,957	100% 100% 100% 100%
1993 (S) (F)	25,593,600 8,117,000	FRY FRY FRY FRY	Nakat Inlet (S) Kendrick Bay (S) Earl West (S) Nakat Inlet (F)	7,929,557 9,067,848 7,442,915 7,702,162	1994	(S)Nakat Inlet (F)Nakat Inlet (S)Kendrick Bay (S)Earl West	N/A N/A N/A N/A	144,358 70,010 222,490 60,544	144,358 70,010 222,490 60,544	100% 100% 100% 100%
1994 (S) (F)	24,390,000 8,033,000	FED FRY FED FRY FED FRY FED FRY	Nakat Inlet (S) Earl West (S) Kendrick Bay (S) Nakat Inlet (F)	8,179,955 7,484,106 8,186,202 7,517,822	1995	(S) Nakat Inlet (F) Nakat Inlet (S) Kendrick Bay (S) Earl West	N/A N/A N/A N/A	190,834 296,872 264,460 99,301	190,834 296,872 264,460 99,301	100% 100% 100% 100%
1995 (S) (F)	25,296,389 8,400,000									

5-YEAR AVERAGE

100%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO FINGERLING	# OF FINGERLINGS	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 45,800,000	77%	35,266,000	.02%	705,320	100%	705,320

¹ "S" = SUMMER, "F" = FALL² Received as green eggs from Neets Bay.

UNIT: 5 - Ketchikan
CHUM SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1988 (S) ⁶ (F) ⁶	67,946,000 ¹ 32,104,000 ²	FRY FRY	23,881,000 17,216,000	1989 (S) 1989 (F)	34,061 48,423	30,600 100,970	64,661 149,393	48.0% 67.5%
1989 (S) (F)	14,630,000 ³ 29,356,000 ⁴	FRY FRY	9,022,000 23,556,000	1990 (S) 1990 (F)	77,915 86,187	22,821 30,800	100,736 116,987	22.7% 15.3%
1990 (S) (F)	37,706,000 38,100,000	FRY	25,700,000 ⁵	1991 (S) 1991 (F)	144,317 105,358	57,715 8,985	202,023 114,443	26.3% 8.0%
1991 (S) (F)	51,787,500 30,750,700	FRY FRY	23,282,300 ⁷ 25,205,008 ⁸	1992 (S) 1992 (F)	345,985 131,685	140,403 72,418	486,388 204,103	28.9% 35.5%
1992 (S) (F)	62,321,000 35,990,000	FRY FRY	32,525,000 ¹¹ 25,586,000 ¹²	1993 (S) 1993 (F)	282,201 532,320	197,739 87,119	479,940 619,439	41.2% 14.1%
1993 (S) (F)	72,827,193 ⁹ 36,080,900 ¹⁰	FRY FRY	40,197,000 25,228,000	1994(S) 1994(F)	927,209 339,101	135,874 60,389	1,063,083 399,490	12.8% 15.1%
1994(S) (F)	77,726,000 30,434,000	FED FRY FED FRY	46,635,655 20,176,811	1995(S) 1995(F)	918,084 146,720	124,918 33,705	1,043,002 180,425	12.0% 18.7%
1995 (S) (F)	77,947,000 30,055,614							

5-YEAR AVERAGE

24.2%
18.3%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 80,000,000	77%	61,600,000	.02%	1,232,000	21.3% (avg)	262,416

¹ 22,470,000 and 3,458,000 shipped as green eggs to Whitman Lake and Burnett Inlet, respectively.

² 12,400,000 shipped as green eggs to Whitman Lake.

³ 4,175,000 shipped as green eggs to Whitman Lake.

⁴ 12,242,000 shipped as green eggs to Whitman Lake.

⁵ Released total include 4,922,000 fall chum salmon fry from Whitman Lake.

⁶ "S" = "summer" "F" = "fall"

⁸ 4,134,000 eyed eggs to Whitman Lake

⁹ 25,593,000 eyed eggs shipped to Whitman Lake.

¹⁰ 8,117,000 eyed eggs shipped to Whitman Lake.

¹¹ 23,847,000 eyed eggs shipped to Whitman Lake

¹² 8,054,000 eyed eggs shipped to Whitman Lake.

⁷ 24,119,00 eyed eggs to Whitman Lake

TABLE 22. BURNETT INLET - ALASKA AQUACULTURE, INC.

UNIT: 3 - Petersburg - Wrangell

CHUM SALMON

PRODUCTION*

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. ⁴ HARVEST	TOTAL RETURN	HARVEST RATE
1985	274,580 ¹ 625,926 ²	FED FRY FED FRY	261,091 570,740	1986	4,856	4,856	9,712	50.0%
1986	4,636,233	FED FRY	4,446,275	1987	9,691	4,000	13,691	29.2%
1987	10,030,435	FED FRY	8,900,000	1988	5,194	1,731	6,925	25.0%
1988	5,145,746 3,335,087 ³	FED FRY FED FRY	4,682,628 2,700,473	1989	2,963	13,556	16,519	82.1%
1989	2,799,447	FED FRY	2,500,000	1990	29,748	20,321	50,069	40.6%
1990	20,002,500	FED FRY	2,980,447	1991	18,437	23,269	46,021	50.5%
1991	20,500,000	FED FRY	19,578,450	1992	32,117	16,500	48,167	34.3%
1992	20,450,000	FED FRY	19,220,000	1993	16,981	12,002	28,983	41.4%
1993	15,330,420	FED FRY	9,564,691	1994	24,877	18,805	43,682	43.1%
1994	22,000,000	FED FRY	21,295,000	1995	138,787	80,900	219,687	36.8%
1995	45,002,500							

5-YEAR AVERAGE

41.2%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 60,000,000	77%	46,200,000	.02%	924,000	41.2%	380,688

¹Harding River egg take.

³Eggs transported from Neets Bay.

*All numbers verified with "Historic Production from Burnett Inlet Hatchery" tables in 1992 Hatchery Annual Management Plan.

²Egg take from hatchery returns.

⁴Common property harvest data are based on operator's estimates.

TABLE 23. TAMGAS
UNIT: 5 - Ketchikan
CHUM SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

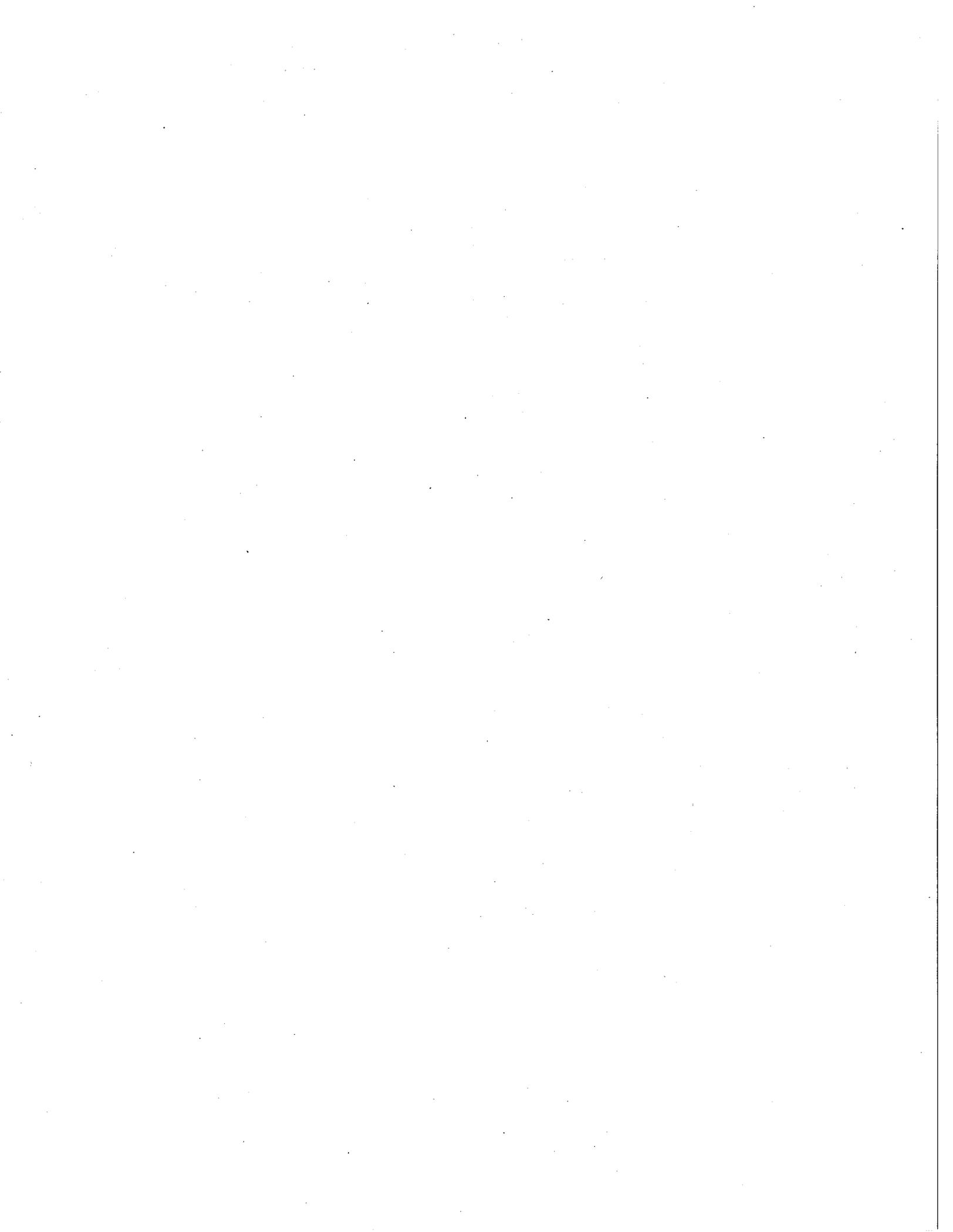
BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1986	3,943,000	FRY	3,723,000	1986	9,134	9,134	18,268	50.0%
1987	6,000,000	FRY	4,363,900	1987	9,368	9,368	18,736	50.0%
1988	16,000,000	FRY	13,971,200	1988	38,986	38,986	77,972	50.0%
1989	5,000,000	FRY	3,923,300	1989	12,024	12,024	24,048	50.0%
1990	1,700,000	FED FRY	1,499,000	1990	5,788	5,788	11,576	50.0%
1991	3,000,000	FED FRY	2,148,700	1991	10,565	10,565	21,130	50.0%
1992	10,800,000	FED FRY UNFED FRY	6,450,000 1,000,000	1992	22,142	22,142	44,284	50.0%
1993	5,400,628	FED FRY	4,132,922	1993	19,944	13,944	33,888	41.2%
1994	2,300,000	FED FRY	1,550,000	1994	28,385	2,443	30,828	8.0%
1995	1,900,000	FED FRY	1,500,000	1995	35,000	25,000	51,000	49.0%

5-YEAR AVERAGE

39.6%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 40,000,000	77%	30,800,000	0.2%	616,000	39.6%	243,936



SOUTHERN SOUTHEAST ALASKA ENHANCEMENT PROJECTS

PINK SALMON

1995

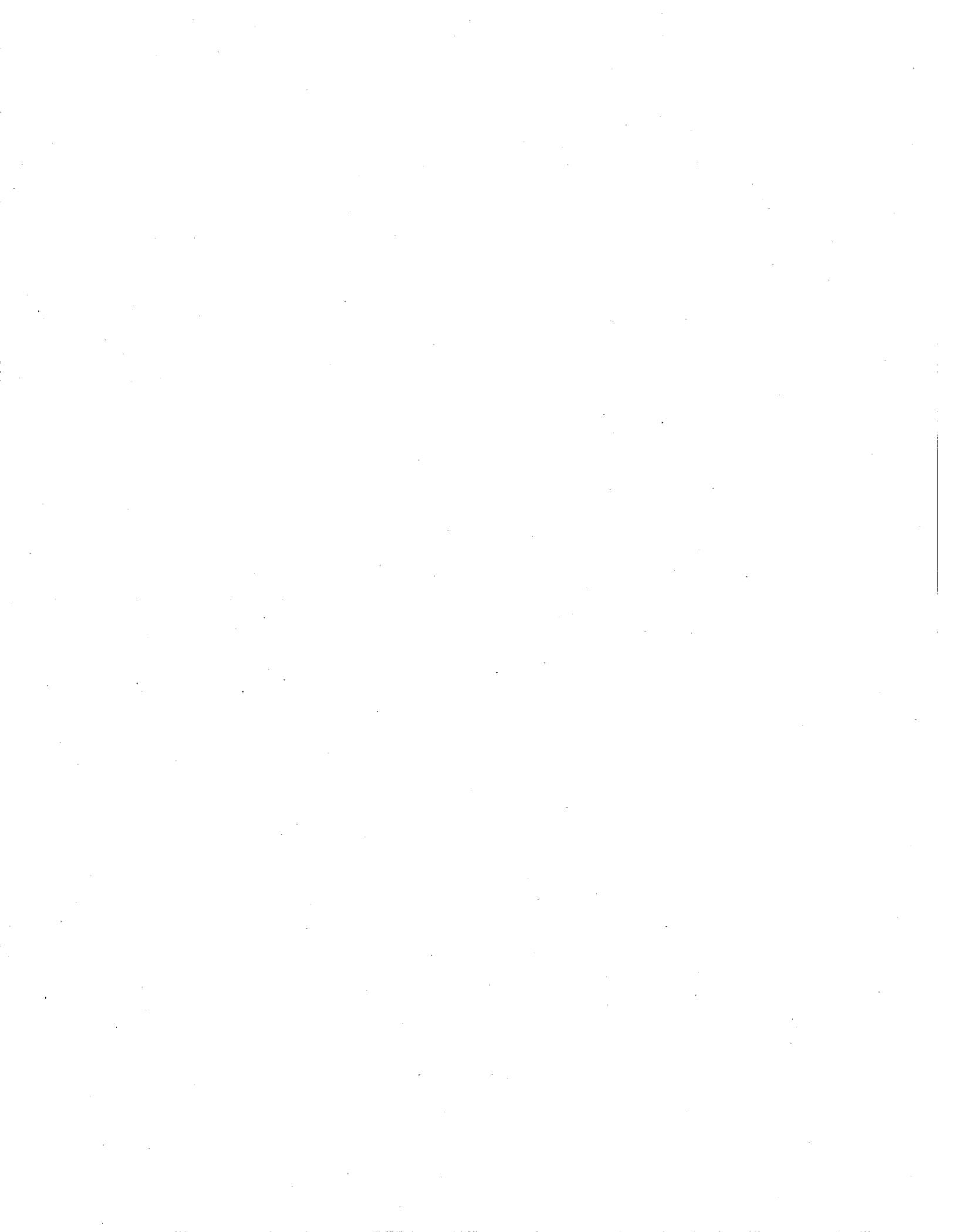


TABLE 24. 1995 STATUS OF SOUTHERN SOUTHEAST HATCHERIES -- SUMMARY

PINK SALMON

PROJECTED FULL PRODUCTION

CURRENT PRODUCTION

OPERATIONAL PROJECTS	UNIT	PRODUCTION BASIS	TOTAL RETURN	COMMON PROPERTY HARVEST	RETURN YEAR	TOTAL RETURN	COMMON PROPERTY HARVEST ¹
BURNETT INLET HATCHERY	PETERSBURG/ WRANGELL	EGGS 40,000,000	616,000	376,992	1995	469,848	285,000
TAMGAS HATCHERY	KETCHIKAN	EGGS 5,000,000	77,000	38,500	1995	N/A	N/A
TOTAL OF CURRENT PROJECTS			693,000	415,492	1995	469,848	285,000

¹ Common property harvest data are operator estimates included in annual reports.

TABLE 25. BURNETT INLET - ALASKA AQUACULTURE, INC.
UNIT: 3 - Petersburg - Wrangell

PINK SALMON

PRODUCTION*

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. ³ HARVEST	TOTAL RETURN	HARVEST RATE
1986	13,273,500 ¹	FED FRY	8,810,000	1986	32,000	32,000	64,000	50.0%
1987	4,864,850 ²	FED FRY	9,900,000	1987	132,848	60,000	192,848	31.1%
1988	6,671,289	FED FRY	5,534,150	1988	54,982	18,327	73,309	25.0%
1989	38,372,026	FED FRY	11,500,000	1989	226,936	529,514	756,450	70.0%
1990	11,301,700	FED FRY	8,968,430	1990	160,642	75,000	235,642	71.8%
1991	20,289,600	FED FRY	19,342,342	1991	178,819	271,764	450,583	60.3%
1992	20,600,000	FED FRY	20,065,000	1992	123,300	150,000	273,300	54.9%
1993	19,557,848	FED FRY	18,190,000	1993	115,743	220,000	335,743	65.6%
1994	39,980,000	FED FRY	38,950,000	1994	273,271	546,542	819,813	66.7%
1995	13,094,700	FED FRY		1995	184,848	285,000	469,848	60.6%

5-YEAR AVERAGE

61.2%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 40,000,000	77%	30,800,000	.02%	616,000	61.2%	376,992

¹ 2,500,000 eyed eggs were transported to Meyers Chuck.

² 1,000,000 fry were transported to Meyers Chuck.

³ Common property harvest data are based on operator's estimates.

*All numbers verified with "Historic Production from Burnett Inlet Hatchery" tables in 1992 Hatchery Annual Management Plan.

TABLE 26. TAMGAS
UNIT: 5 - Ketchikan

PINK SALMON

PRODUCTION

RELEASE DATA

RETURN DATA

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1986	1,200,000	FRY	1,046,000	1986	16,446	16,446	32,892	50%
1987	1,500,000	FRY	1,038,300	1987	8,725	8,725	11,454	50%
1988	2,932,000	FRY	2,900,000	1988	22,709	22,709	37,418	50%
1989	4,600,000	FRY	4,340,000	1989	23,955	23,955	44,510	50%
1990	5,800,000	FRY	5,400,000	1990	28,770	28,770	57,542	50%
1991	558,000	FRY	500,000	1991	10,900	10,900	21,800	50%
1992	2,500,000	FED FRY UNFED FRY	1,200,000 1,000,000	1992	59,000	59,000	118,000	50%
1993	ZERO			1993	13,696	13,696	27,392	50%
1994	ZERO							
1995	ZERO							

AVERAGE

50%

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO FRY	# OF FRY	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 5,000,000	77%	3,850,000	0.2%	77,000	50.0%	38,500

SOUTHERN SOUTHEAST ALASKA ENHANCEMENT PROJECTS

STEELHEAD

1995

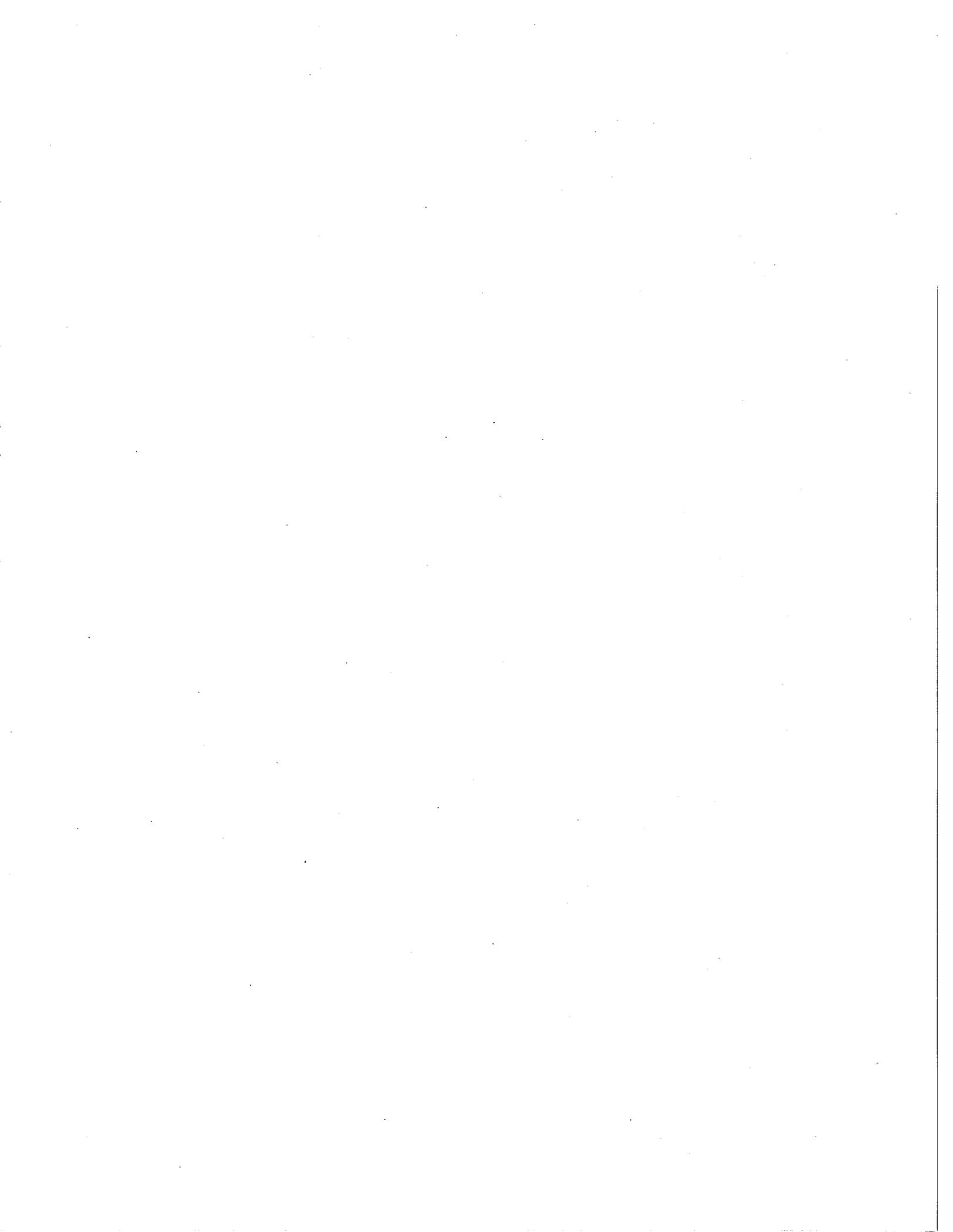


TABLE 27. KLAWOCK
UNIT: 2 - Prince of Wales Island

STEELHEAD

PRODUCTION

RELEASE DATA

RETURN DATA¹

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1987	96,000	SMOLT	39,600					
1988	105,000	SMOLT	89,000					
1989	84,000	SMOLT	20,544					
1990	111,000	SMOLT	28,446					
1991	101,000	SMOLT	19,210					
1992	21,600	SMOLT	11,406					
1993	20,000	SMOLT	1,500					
1994	5,000	SMOLT	380					
1995	14,420							

¹ No consistent return data exists on steelhead production at Southern Southeast Alaska hatcheries.

PROJECTED PRODUCTION AT FULL CAPACITY

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 50,000	50%	25,000	3%	750	100%	750

TABLE 28. CRYSTAL LAKE
UNIT: 3 - Petersburg - Wrangell

STEELHEAD

PRODUCTION

RELEASE DATA

RETURN DATA¹

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1987	115,000	SMOLT	90,400	1990/1991				
1988	62,000	SMOLT	12,581	1991/1992				
1989	44,000	SMOLT	2,177	1992/1993				
1990	NONE	N/A	N/A	N/A				
1991	19,000	SMOLT	9,372	1994/1995				
1992	20,000	SMOLT	4,005	1995/1996				
1993	20,000	SMOLT	9,491	1996/1997				
1994	NONE	N/A	N/A	N/A				
1995	NONE	N/A	N/A	N/A				

¹ No consistent return data exists on steelhead production for Southern Southeast Alaska hatcheries.

TABLE 29. DEER MOUNTAIN

UNIT: 5 - Ketchikan

STEELHEAD

PRODUCTION

RELEASE DATA

RETURN DATA¹

BROOD YEAR	NUMBER EGGS	LIFE STAGE AT RELEASE	NUMBER RELEASED	RETURN YEARS	ESCAPEMENT	C.P. HARVEST	TOTAL RETURN	HARVEST RATE
1989	36,000	SMOLT FRY	7,218 16,757					
1990	25,000	0-SMOLT FRY SMOLT	5,021 13,749 1,030					
1991	14,600	SMOLT	1,029 ²					
1992	22,300							
1993	10,000	SMOLT	4,371					
1994	10,000	SMOLT	3,456					
1995	10,500	SMOLT	7,773					

¹ No consistent steelhead return data exists for Southern Southeast Alaska hatcheries.

² Expected release of 4,000 was vandalized.

³ Production basis was established when Deer Mountain became a PNP facility in 1994; it does not reflect the additional permitted capacity of 43,300 triploid eggs from Fort Richardson Hatchery.

PROJECTED PRODUCTION AT FULL CAPACITY³

PRODUCTION BASIS	ASSUMED SURVIVAL TO SMOLT	# OF SMOLT	ASSUMED % SURVIVAL TO ADULT	TOTAL RETURN	ACTUAL HARVEST RATE	C.P. HARVEST
EGGS 8,500	71%	3,995	3%	180	N/A	N/A

TABLE 30. ESTIMATED PRODUCTION AND CONTRIBUTION FOR STEELHEAD

FACILITY	EGGS	%SURVIVAL	SMOLT	% OCEAN	ADULTS	% HARVEST	ADULTS	CATCH PER UNIT
KLAWOCK	50,000	60%	2,000 ¹ age-1 2,000 ¹ age-2	2%	100	67%	70	0.1 Fish/Hour
CRYSTAL LAKE	34,000	60%	20,000	2%	400	67%	300	0.1 Fish/Hour
DEER MOUNTAIN	8,500 ²	60%	5,000	2%	100	67%	100	0.1 Fish/Hour

¹ Rearing capacity limited by water supply; full capacity smolt production (30,000) could occur only if sockeye program were discontinued.

² Excess fry to creek.

SECTION 3.

COMMERCIAL HARVEST, GAP ANALYSIS, AND PROJECT STATUS

1995

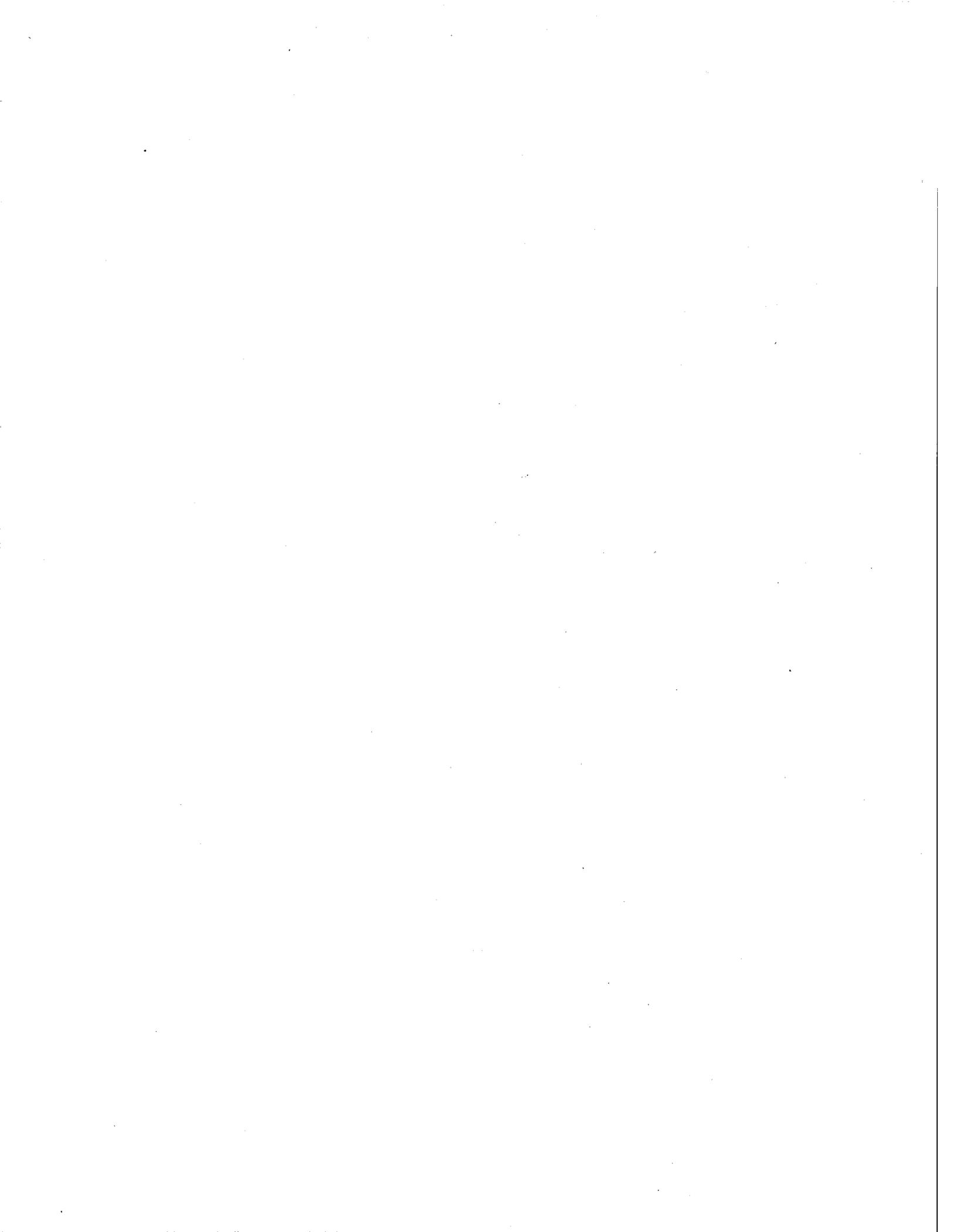


Table 31. Commercial Harvest of Wild and Hatchery Salmon in Districts 101-108, 150 and 151, 1974-1995.

YEAR	CHINOOK	COHO	CHUM	SOCKEYE	PINK
1974	152,000	640,000	697,000	346,000	4,220,000
1975	144,000	271,000	373,000	115,000	3,330,000
1976	104,000	292,000	509,000	257,000	5,157,000
1977	61,000	327,000	427,000	648,000	11,242,000
1978	95,866	695,787	648,520	455,157	18,423,466
1979	126,744	540,696	330,039	551,789	6,983,664
1980	83,993	529,095	832,644	738,791	12,921,518
1981	87,960	601,875	342,862	713,159	13,524,575
1982	105,823	788,286	810,877	838,734	12,956,599
1983	92,623	823,650	493,973	934,079	31,442,272
1984	67,329	674,916	1,377,873	645,922	19,635,867
1985	70,953	953,137	1,262,555	1,123,641	30,709,344
1986	67,895	1,423,773	1,745,721	901,044	44,986,451
1987	64,258	619,034	745,946	535,514	4,443,089
1988	68,446	333,485	1,546,216	884,253	8,933,757
1989	66,155	810,830	1,196,848	1,125,869	45,539,857
1990	126,966	1,259,301	899,040	1,276,163	26,687,787
1991	123,037	1,307,625	1,548,308	1,328,017	43,496,704
1992	86,584	1,300,827	2,175,968	1,797,278	19,009,365
1993	96,675	1,329,005	2,936,015	2,312,604	39,179,633
1994	55,818	1,730,951	3,441,166	1,704,152	21,059,332
1995	32,606	1,087,901	4,582,333	1,353,206	41,315,405
5-YEAR ¹ AVERAGE	78,944	1,351,262	2,936,758	1,699,051	32,812,088

¹1991-1995

TABLE 32. GAP ANALYSIS FOR SOUTHEAST ALASKA SALMON FISHERIES, 1995

5-Year Average Harvest, Projected Harvest Potentials
and Harvest Objectives Compared

Projected Average Harvest Potential With Current Projects								
Species	5 Year Average Harvest ¹	Wild ²	Enhanced Potential ³		Total Enhanced Potential	Projected Potential Harvest	Harvest Objective ⁴	Gap
			Northern SE	Southern SE				
Chinook	261,300	263,000	43,590	95,386	138,976	401,976	537,000	135,024
Coho	3,923,700	1,200,000	430,050	617,573	1,047,623	2,247,623	2,650,000	402,377
Sockeye	2,421,600	800,000	385,656	259,476	645,132	1,445,132	2,100,000	654,868
Pink	51,959,800	16,500,000	686,938	415,492	1,102,430	17,602,430	30,000,000	12,397,570
Chum	7,542,700	1,700,000	6,170,350	1,592,360	7,762,710	9,462,710	9,700,000	237,290

¹ 1991-1995 (rounded to nearest hundred)

² Best estimate of ADF&G, Commercial Fisheries Division for long-term average wild harvest.

³ From 1995 enhancement project summary tables for northern and southern Southeast Alaska.

⁴ From Comprehensive Salmon Plan, Phase II. NSE. December 1982.

TABLE 33. GAP ANALYSIS FOR SOUTHEAST ALASKA SALMON FISHERIES, 1995

5-Year Average Harvest, 1995 Harvest Estimates by Operators
and Harvest Objectives Compared

Projected Average Harvest Potential With Current Projects								
Species	5 -Year Average Harvest ¹	Wild ²	1994 Enhanced Fish Contributions ³		Total Enhanced Production	Projected Potential Harvest	Harvest Objective ⁴	1994 Gap
			<u>Northern SE</u>	<u>Southern SE</u>				
Chinook	261,300	263,000	46,145	13,059	59,204	322,204	537,000	214,796
Coho	3,923,700	1,200,000	276,361	339,063	615,424	1,815,424	2,650,000	834,576
Sockeye	2,421,600	800,000	64,230	69,025	133,255	933,255	2,100,000	1,166,745
Pink	51,959,800	16,500,000	814,144	285,000	1,099,144	17,599,144	30,000,000	12,400,856
Chum	7,542,700	1,700,000	4,343,864	1,115,990	5,459,854	7,159,854	9,700,000	2,540,146

¹ 1991-1995 (rounded to nearest 100)

² Best estimate of ADF&G, Commercial Fisheries Division for long-term average wild harvest.

³ Hatchery operator estimates from 1994 enhancement project summary tables for northern and southern Southeast Alaska.

⁴ From Comprehensive Salmon Plan, Phase II. NSE. December 1982.

Introduction: Status of Previously Proposed Projects

Table 34 presents an updated account of projects according to name, target species, status, and phase. These updates are based upon materials provided by ADF&G, USFS, and SSRAA staffs. Each project undergoes five phases of development as follows:

(Phase I) Identify and verify potential fish habitat improvement projects, collect biological data, conduct economic analysis, and determine feasibility.

(Phase II) Conduct environmental assessment; consider alternatives suggested during scoping process; conduct evaluation by an interdisciplinary team using fish habitat analysis, engineering design, and cost analysis; and approve USFS preferred alternative from alternatives presented in the environmental document.

(Phase III) Select the optimal project design to enable force account or contract development.

(Phase IV) Construct project.

(Phase V) Conduct maintenance and evaluation activities and monitor performance of the project.

Table 34. Status of Projects Previously Proposed in Phase II.

Project Name	Target Species	1995 Status	1996 Priority
1. Stock Separation Mainland Systems	Chinook	Active Phase IV	High
2. Marten River 101-30-10600	Chinook	Inactive	Low
3. McDonald Lake Fertilization 101-80-10680	Sockeye	Active Phase IV & V	High
4. Cable Creek 103-60-1070	Coho	Inactive	Low
5. Rearing Habitat Improvement 102-70-10580-2023 106-30-10120 103-90-10310 106-30-10160 106-30-10660-2004/2031 102-60-10390 102-60-10380-0020	Coho/ Steelhead	Inactive Phase I	Low
6. Tunga Inlet 103-90-10090	Coho	Inactive	Low
7. Badger/Bakewell 101-55-10730	Sockeye	Inactive	Low
8. Rio Roberts Creek 102-70-10580-2131	Coho/ Steelhead	Active Phase V	High
9. Margaret Lake Fish Pass	Coho/ Sockeye	Active Phase V	High
10. Marx Creek Spawning Channel 101-15-105000-2006	Chum	Active Phase V	Low
11. Dog Salmon Fishpass 102-60-10380	Pink/Chum/ Sockeye	Inactive Phase V	Low

--continued--

Table 34. Continued

Project Name	Target Species	1995 Status	1996 Priority
12. Meter Bight Creek 108-20-10060	Pink	Active Phase V	Low
13. Orchard Lake 102-50-1280	Sockeye	Inactive Phase II	Low
14. Harding River	Chinook/Coho	Active Phase III	High
15. Virginia Lake	Sockeye	Active Phase V	High
16. Vixen Inlet 102-60-10380	Pink/Coho/ Sockeye	Inactive N/A	Low
17. Big Lake, Ratz Creek 106-10-10100	Sockeye/Coho	Active Phase V	Low
18. Old Franks Lake Fish pass	Sockeye/Coho	Active Phase V	High
19. Salamander Creek	Chum	Active Phase V	Low
20. Irish Creek 105-32-10120	Coho/Pink/ Chum	Active Phase V	Low
21. Muddy River	Chinook/Chum	Inactive Phase I	Low
22. Kendrick Bay Chum Release Site	Chum	Active Phase V	High
23. Frosty Creek 107-20-05	Coho	Inactive Phase I	Low
24. Tahltan Lake Transboundary River Project	Sockeye	Active Phase IV	High
25. Tuya Lake Transboundary River Project	Sockeye	Active Phase IV	High

--continued--

Table 34. Continued

Project Name	Target Species	1995 Status	1996 Priority
26. Bradfield River Rehabilitation	Chinook/Coho	Active Phase I	High
27. Mitchell Creek 106-43-80	Coho	Active Phase V	High
28. Duncan Creek 106-43-75	Coho	Active Phase III	High
29. Woodpecker Lake Creek	Coho	Active Phase V	High
30. Bryce Creek	Coho	Active Phase V	High
31. Neck Lake	Coho/Sockeye	Active Phase III	High

Project Narratives

Stock Separation, Mainland Systems

Genetic Stock Identification. ADF&G's Genetics Section completed the second year of a study (funded by NOAA) to genetically define chinook stocks statewide through the allozyme electrophoresis technique. Samples were collected from the following Southeast mainland systems: Chickamin River (and two derivative hatchery stocks), Unuk River (and one derivative hatchery stock), Farragut River, and Chilkat River (four tributaries). Analysis and reporting continued in 1995.

Coded Wire Tagging. Coded wire tagging of chinook juveniles in the Unuk River continued in the spring and fall of 1995. Adult returns will provide harvest data; adult distribution and population estimates on the Unuk River in 1997-1999 will enable calculation of exploitation rates and provide an accurate assessment of population strength.

McDonald Lake Fertilization

This ongoing lake fertilization project for sockeye salmon was transferred to the private sector (SSRAA) in 1994; evaluation is contracted to ADF&G. In 1995 this project contributed over 50,000 sockeye salmon to the common property harvest, including 10,000 to subsistence fishermen. Escapement to the spawning grounds was 44,700 fish.

Cable Creek

A series of jump-pool weirs was constructed in 1986 to enable passage of coho salmon over a 20-ft barrier falls. A smaller velocity barrier upstream was modified in 1994 by blasting. In the 1995 the USFS continued to monitor the effectiveness of barrier modifications.

Tunga Inlet

The USFS constructed a series of jump-pool weirs in 1986 at a cost of \$18,000, and several years of coho juveniles were planted (the last in 1992). Return to the commercial fishery from planted cohos was good, but the system is spawning-limited and will not be self-sustaining. No evaluation or maintenance was performed in 1995 and none is anticipated in 1996. The lake retains potential as a nursery lake.

Badger/Bakewell

A USFS fish pass constructed in 1985 at a cost of \$350,000 is fully operational, and maintenance will continue annually. A coho salmon run is now self-sustaining, but the commercial interception rate of

sockeye salmon has been too high (i.e., >90%) to develop a self-sustaining run. The sockeye salmon enhancement project has been terminated because the brood source (i.e., Hug Smith Lake) is not dependable. Limnological evaluation continued in 1995, and it is expected to be continued through 1996.

Rio Roberts Creek

At a cost of \$145,000, a fish pass on this tributary to the Thorne River was constructed in 1989 to allow passage for cohos over a 12-foot partial barrier. The five-year evaluation period was completed in 1995. Smolt emigration monitoring and adult escapement counts were conducted. An evaluation report is expected in 1996. If funding allows, USFS may return after an indefinite period to monitor habitat utilization.

Margaret Lake

The USFS continues to intensively monitor the effects of introducing anadromous species on resident trout; 100,000 unfed sockeye salmon fry were released in 1994 by SSRAA, the final year of enhancement activity, bringing the total enhancement effort to 1.9 million sockeye salmon from 1988 to 1994. One group of summer coho was planted in 1991. USFS personnel counted 136 sockeye, 792 coho, 42 chum, and more than 27,000 pink salmon through the fish pass in 1995. The Forest Science Lab in Juneau produces detailed annual reports on this project.

Marx Creek Spawning Channel

The USFS developed Marx Creek in 1985 and extended it to its present length of 1.8 km in 1989. Evaluation continues, with ADF&G conducting weekly chum salmon escapement counts and enumerating outmigrant fry the following spring. The 1995 outmigration was 3.3 million chum salmon fry; escapement in 1995 was 1,033 adults. Coho production from Marx Creek continues to serve as the control population for evaluating production from Bryce Creek coho rearing area; the coho coded wire tag project continued in spring 1995.

Meter Bight Creek

Three fish passage structures have been completed by the USFS, and pink salmon now spawn in the upper watershed. Maintenance continued through 1995.

Harding River

Severe flooding in late 1993 modified the river, and blasting planned for the large rock previously thought to be a partial barrier to coho and a total barrier to other species lost priority. Chinook were able to pass the barrier in 1993, but the river channel continued to change, and questions of a total barrier arose

in 1994. USFS and ADF&G continue to assess the situation. The final egg take for chinook enhancement occurred in 1993. Full utilization of the six miles of upstream spawning and rearing habitat would produce up to 3,000 additional chinook salmon to the common property fisheries. Also, it appears that early run coho salmon in the upper river will be lost if access is not restored.

Virginia Lake

SSRAA, USFS, ADF&G, and the Wrangell area gillnet fleet have cooperated in developing this sockeye salmon project. A fish pass was completed in 1988. A fry planting program began in 1989, with 7.9 million planted through 1995. Lake fertilization began in 1991. The total return in 1995 was 3,867, with a 62% interception rate in the common property fisheries. 1996 will be the final year for lake fertilization and fry plants, although evaluation will continue through 1997.

Big Lake, Ratz Creek

A fish pass was completed by the USFS in August 1991 at a cost of \$450,000. Returns of salmon to the system in 1995 were as follows: 291 coho; 1,868 pink, and 85 sockeye salmon. The first five-year evaluation cycle was completed in 1995, and the final report will be completed in 1996.

Old Franks Lakes

The two fish passes constructed by the USFS and various partners in 1992 are fully operational, allowing access to 530 acres of spawning and rearing habitat. A U.S./Canada funded coho salmon bioenhancement project continued in 1995 with 218,000 fingerlings planted into Old Franks Lakes. Another 162,500 coho eggs were taken for culture and planting in 1996. One group of 227,000 sockeye fry were planted in the lakes in 1992. In 1995 the USFS continued a monitoring program in the lakes for resident species and rearing juveniles of anadromous species; USFS also operated an impedance tunnel for enumerating returning adults ascending the upper fish pass. Escapement through the upper fish pass in 1995 was an estimated 700 coho and 75 sockeye salmon. Coho salmon bioenhancement as well as the monitoring of resident and anadromous species will continue in 1996.

Salamander Creek

Blasting at two sites in Salamander Creek (0.25 and 0.5 miles from salt water) in 1993 allows passage of chum salmon and access to another 2.5 miles of spawning habitat. The chum salmon are surplus to the Earl West Cove terminal fishery. Escapement surveys have confirmed the project to be successful by allowing fish to disperse upstream.

Irish Creek

The last year of coded wire returns was 1993. Peak years of tag recoveries have indicated that coho salmon harvests resulting from this project have been in the thousands to ten thousands of fish annually. The project is now in a maintenance phase only.

Kendrick Bay Chum Release Site

This SSRAA project has moved into production mode, with the floating net pen and barge-camp facility fully operational in 1994. Some 264,460 Kendrick Bay chum salmon were harvested in the common property net fisheries in 1995. Another 9.3 million fry were released there in 1995, and annual production is expected to remain at that level.

Tahltan Lake

Sockeye salmon returns to Tahltan Lake are the brood source for fry planted in Tahltan and Tuya Lakes, tributary lakes to the Stikine River. In 1995, 1,143,000 sockeye fry (incubated at Snettisham Central Incubation Facility) were planted into Tahltan Lake. Another 3,008,000 eggs were taken from Tahltan sockeye returns in 1995 for release in 1996. This ongoing cooperative U.S./Canada project is identified in the Pacific Salmon Treaty. A total of 73,841 adult sockeye salmon returned to Stikine River projects in 1995; of these, 31,337 sockeye salmon were harvested by the gillnet fleet.

Tuya Lake

In 1995, 2,267,000 sockeye salmon fry were planted in Tuya Lake (i.e., Tahltan Lake stock incubated at Snettisham CIF). Another 3,886,000 eggs were taken from adult returns to Tahltan Lake; resulting fry will be released into Tuya Lake in 1996. This project will continue as a cooperative U.S./Canada effort.

Bradfield River

Extensive logging in the Bradfield River floodplain during the 1970s has impacted salmon production there. Feasibility studies for riparian habitat rehabilitation activities are continuing. Silviculture practices are being revised and evaluated to improve future riparian habitat.

Mitchell Creek (Duncan Canal)

A fish pass approximately two miles from salt water was completed in 1992. It provides access to 20 acres of spawning and rearing habitat. Two smaller barrier falls farther upstream had been previously reshaped with explosives in 1991 to enable fish passage. Coho eggs taken from the indigenous run are being cultured at

Crystal Lake Hatchery. The first fry release above the fish pass occurred in 1993, and bioenhancement continued through brood year 1995. Returns of coded wire tagged fish will provide evaluation data.

Duncan Creek

Feasibility studies have been completed by the USFS. The NEPA process for this project began in 1994. Two fish passage projects are proposed: (1) a traditional fish ladder at the lower barrier and (2) blasting techniques at the upper barrier, which is a velocity block. The watershed above the barriers would provide spawning and rearing habitat for an estimated 12,300 coho smolts, providing 775 adult coho to the common property fisheries. The NEPA process will continue in 1996, an Environmental Assessment is expected to be completed by September 1996, and a decision is expected in October 1996. Implementation of this project is on hold, pending funding.

Bryce Creek

The USFS excavated a channel from Fish Creek (101-15-10500-2023) into a series of sloughs and ponds in the Salmon River valley in 1992, providing access to 29,200 m² of high-quality coho rearing habitat. In 1993, 1994, and 1995, ADF&G coded wire tagged coho juveniles produced in Bryce Creek to evaluate migration patterns and contributions to fisheries. The USFS modified the lower end of Bryce Creek in 1995 to provide easier outmigration.

Neck Lake

Neck Lake is SSRAA's coho release site/ cost recovery area to fund the operation of Beaver Falls Sockeye Central Incubation Facility. Summer coho (Ward Lake stock, Reflection Lake ancestral stock) will be reared in net pens in Neck Lake and then released into the lake as presmolts. Adults returning to the outlet stream will be harvested. Project implementation began in 1995 with incubation of 1.1 million coho eggs at Whitman Lake Hatchery.

SECTION 4.

**U.S./CANADA PACIFIC SALMON TREATY
ENHANCEMENT PROGRAM
FOR SOUTHEAST ALASKA**

1995

Background

In 1985 several substantive changes to the course of the fisheries development in southeast Alaska were made necessary by the implementation of the U.S./Canada Pacific Salmon Treaty (PST). To mitigate for the harvest restrictions imposed on all gear groups a new enhancement program was developed. Initial goals included the production of 100,000 chinook salmon, 1,000,000 chum salmon, and 20,000-40,000 sockeye salmon. The federal government appropriated \$20.0 million for this enhancement program, defining the grant funding structure so as to provide for annual payments over a five-year period, beginning in 1986.

In the late spring of 1985, the State of Alaska began to explore various options for chinook salmon mitigation through investment in new hatchery production. A multi-disciplinary mitigation team composed of representatives of the Alaska Department of Fish and Game, National Marine Fisheries Service, commercial fishing organizations, and private sector aquaculture associations, was formed to deliberate on all aspects of chinook salmon production including various enhancement technologies, fisheries management issues, and harvest opportunities.

Although primary emphasis had been placed on implementing projects to produce chinook salmon for common property harvests by the troll fleet, other projects designed to produce chum, coho, and sockeye salmon have also been proposed and endorsed. All of these projects will provide additional benefits for each of the targeted gear groups. Every year, beginning in 1985 and ending in 1991, ADF&G has hosted mitigation group meetings to discuss the status and future direction of the U.S./Canada enhancement program. The final group meeting was held in February of 1992. At that time the mitigation team members made project recommendations for consideration by the Commissioner. The Commissioner acted upon these recommendations and made the final project determinations in April of 1992. These project choices were consolidated into a grant proposal and forwarded to NOAA for review and approval.

On September 30, 1992, ADF&G received permission from NOAA to expend the FFY91 appropriation. The final allocation of \$2.2 million fulfilled the \$20 million dollar commitment by the federal government to the State of Alaska for the Alaska Salmon Enhancement Program.

Current Status

The Alaska Salmon Enhancement Program has active projects under two remaining federal Cooperative Agreements. NOAA Cooperative Agreement NA17FP0006-05 is funded with federal monies appropriated from a combined allocation of federal fiscal years 1989 and 1990. NOAA Cooperative Agreement NA17FB0424-05 is funded with monies appropriated in federal fiscal year 1991. Combined these two

agreements provide \$9.3 million to implement 36 salmon enhancement projects.

At the beginning of 1995, a total of 18 projects were still active. During the year, 2 projects progressed to completion, however also during this period, two new projects were added so that the number of active projects remains at 18. The two projects completed in 1995 focused on upgrades to existing southeast Alaska hatchery facilities. The two new projects, funded through a reallocation of monies from other active projects for the purpose on continuing sockeye fry/smolt activities at Snettisham. Project highlights for 1995 are as follows:

Snettisham CIF. Since completion of the remodeling project in 1993, the hatchery has continued to operate successfully. The sophisticated mechanical systems, required to meet the unique needs of the sockeye salmon programs being conducted at Snettisham, are operating as expected. The design capacity of this facility of 30 million sockeye salmon eggs has not yet to been reached, but each year the egg receipts to the hatchery come closer to meeting this number.

In 1995 1,213,000 BY 93 sockeye smolt were released as were 6,483,000 BY 94 sockeye fry and 488,000 BY94 sockeye pre-smolts. Green egg receipts to the facility totaled 19,579,600.

Neets Bay Raceway Project. This chinook salmon enhancement project was completed in June of 1995. This project has vastly improved the spawning operations, water efficiency, and pathology isolation for among stocks of rearing fish. The sustainable increased production of coho, chinook and chum salmon will have a very positive effect to the common property fisheries.

Crystal Lake Hatchery Ozonation. This project provided funding to install water depuration equipment (ozonation) to control the incidence of bacterial kidney disease (BKD). This project ran concurrently with the Crystal Lake Water Main replacement and Raceways Project. The construction portion of this project was completed during the latter part of 1994 and the close-out documentation completed early in 1995. There have been some problems with control of the ozone destruct system. Ozone spikes have been noted which show concentrations in the water approaching levels that are considered unsafe for salmon culture. The hatchery staff is working with the design consultant to determine remedial actions for this problem. Until then the system will not be used.

Snettisham Sockeye Fry Smolt Program.

In 1995 the allocations of several projects funded under the Alaska Salmon Enhancement program were amended to provide funding for fry/smolt rearing activities at the ADF&G Snettisham Hatchery. Drastic cuts in the operating budget of the hatchery forced the

department to seek alternative funding sources to insure that all hatchery programs remained operational until a contractor could be found to operate Snettisham. Keeping the fry smolt programs were critical to the future operation of this facility for it is the adults returning from these releases of fry and smolt that will constitute the broodstock and cost recovery fish needed to provide eggs and revenue in the years to come.

The Alaska Salmon Enhancement Program continues to run smoothly and will have enhancement projects continuing on until November 30, 1996. At that time all funds will be exhausted.

Tables 35-39 identify each enhancement project which have been funded through the U.S./Canada process as of December 1995. The first four tables are presented by species and include information by agency, project, adult production goal, status, and cost by federal fiscal year. The total allocation to date for the enhancement program has been \$19,865,280. This includes federal fiscal years 1986 through 1991. Of this total \$11,160,349 has been dedicated for chinook salmon production, \$6,201,193 for sockeye production, \$1,620,818 for chum production, and \$306,650 for coho production. Table 39 summarizes this distribution and includes contract administration and technical support expenditures. Completion of these projects, federally funded under the Alaska Salmon Enhancement Program, will directly assist the northern and southern southeast teams in achieving the goals established in the Phase I Regional Comprehensive Salmon Plan.

Table 35. ALASKA SALMON ENHANCEMENT PROGRAM STATUS REPORT FOR CHINOOK SALMON, 1995.

FACILITY OR PROJECT	ADULT PRODUCTION GOAL	STATUS	COST (In Thousands)
1. SSRAA - WHITMAN LAKE HATCHERY EXPANSION	33,000	FFY 86 - COMPLETED	1,291.7
2. NSRAA - MEDVEJIE HATCHERY EXPANSION	17,300	FFY 86/87 - COMPLETED	2,095.1
3. ADF&G- HIDDEN FALLS HATCHERY EXPANSION	52,000	FFY 87 - ENGINEERING/ DESIGN SITE PREPARATION/CONSTRUCTION FFY 88 - CONSTRUCTION (558.8) PLUS ALLOCATION FROM BARANOF WARM SPRINGS (691.2)	250.0 1,799.0 <u>1,250.0</u>
4. FRED - CRYSTAL LAKE HATCHERY RENOVATION	10,000	FFY 88- COMPLETED FFY 91	TOTAL 3,299.0 420.0
5. FRED/COMM. FISH - CARROL INLET PREDATION STUDY	N/A	FFY 86 - COMPLETED	30.2
6. FRED - BARANOF HATCHERY	N/A	FFY 88 - DISCONTINUED	51.6
7. FRED - FARRAGUT RIVER FRY PLANTS, 5 YEARS	4,000	FFY 89/90 - PROJECT INITIATED IN 1991	77.0
8. FRED - HARDING RIVER FRY PLANTS, 5 YEARS	800	FFY 89/90 - PROJECT DISCONTINUED 9/30/95-BALANCE OF FUNDS TRANSFERRED TO SNETTISHAM AND INDIRECT	113.96
72 9. FRED - CRYSTAL LAKE HATCHERY WATER MAIN REPLACEMENT	N/A	FFY 89/90 - WATERLINE WORK COMPLETED RACEWAY WORK CONTINUES	725.0
10. NSRAA - MEDVEJIE HATCHERY REARING SPACE	N/A	FFY 89/90- COMPLETED 1991	60.0
11. SSRAA - WHITMAN LAKE HATCHERY MODIFICATIONS	17,500	FFY 89/90 -PROJECT COMPLETED 11/30/94	359.63
12. FRED - DEEP COVE CHINOOK REMOTE RELEASE. CAPITAL AND OPERATIONAL COSTS, 5 YEARS.	N/A	FFY 89/90 -INITIATED IN 1991 - DISCONTINUED 1993. BALANCE OF FUNDS TRANSFERRED TO S.E. BARANOF PROJECT (1,177.8)	137.13
13. NSRAA - HIDDEN FALLS NET PENS	(Included in #3 above)	FFY 89/90 -COMPLETED IN 1993	70.0
14. AKI - S.E. BARANOF CHINOOK CAPITAL COSTS	60,000	FFY 89/90 -TRANSITION FROM DEEP COVE PROJECT INITIATED IN 1992	1,177.87
15. AKI - S.E. BARANOF CHINOOK OPERATIONAL COSTS, 3 YEARS	(Included in # 14 above)	FFY 1991 - PROJECT BEGINS JULY 1, 1993	453.15
16. FRED - CRYSTAL LAKE HATCHERY OZONATION	N/A	FFY 1991 - PROJECT COMPLETED IN 1993 - BALANCE TO SNETT.	175.2
17. NSRAA - MEDVEJIE RACEWAY COVERS	N/A	FFY 1991 - PROJECT COMPLETED 6/30/95	70.0
18. SSRAA - NEETS BAY HATCHERY UPGRADE	N/A	FFY 1991 - PROJECT COMPLETED 9/30/95	450.0
19. FRED - UPPER LYNN CANAL CHINOOK ENHANCEMENT	3,000	FFY 1991 - PROJECT INITIATED IN 1993	103.8
ADULT PRODUCTION POTENTIAL	197,600	TOTAL EXPENDITURES ALL PROJECTS	\$11,160.35

TABLE 36. ALASKA SALMON ENHANCEMENT PROGRAM STATUS REPORT FOR CHUM SALMON, 1995.

FACILITY OR PROJECT	ADULT PRODUCTION GOAL	STATUS	COST (In Thousands)
1. FRED - MARX CREEK SPAWNING CHANNEL	50,000	FFY 87 - BROOD TRANSPORT, FRY SURVIVAL, CODED WIRE TAGGING - COMPLETED	18.1
		FFY 88 - BROOD TRANSPORT, FRY SURVIVAL CODED WIRE TAGGING - COMPLETED	<u>18.1</u>
			TOTAL 36.2
2. NSRAA - TAKATZ BAY PROJECT REMOTE CHUM REARING	600,000	FFY 86 - FRY TRANSPORT, REARING AND RELEASE - COMPLETED	95.0
3. FRED - TAKATZ PROJECT	N/A	FFY 86 - CHUM EGG TAKE, INCUBATION AT HIDDEN FALLS - COMPLETED	23.0
FRED - HIDDEN FALLS BARRIER NET		FFY 86 - NET PURCHASE AND INSTALLATION COMPLETED	<u>95.0</u>
			TOTAL 118.0
4. SSRAA - WHITMAN LAKE HATCHERY CHUM INCUBATION	250,000	FFY 86 - CHUM INCUBATORS FOR EXPANDED CAPACITY - COMPLETED	36.9
5. NSRAA - HIDDEN FALLS INCUBATION AND REARING	540,000	FFY 88/89 - INITIATED IN 1990, 35 MILLION ADDED EGG CAPACITY	385.0
6. SSRAA - KENDRICK BAY FLOAT CAMP	200,000	FFY 88/89 - INITIATED 1990, CAMP AND OPERATIONAL EQUIPMENT - COMPLETED	149.39
7. SSRAA - EARL WEST FLOAT CAMP	N/A	FFY 89/90 - INITIATED 1990, CAMP AND OPERATIONAL EQUIPMENT - COMPLETED	125.0
8. SSRAA - NEETS BAY HATCHERY INCUBATION AND WATER SAVINGS	400,000	FFY 89/90 - PROJECT COMPLETED 1993	667.97
ADULT PRODUCTION POTENTIAL	2,040,000	TOTAL EXPENDITURES ALL PROJECTS	\$ 1,613.47

TABLE 37. ALASKA SALMON ENHANCEMENT PROGRAM STATUS REPORT FOR SOCKEYE SALMON, 1995.

FACILITY OR PROJECT	ADULT PRODUCTION GOAL	STATUS	COST (In Thousands)
1. FRED - SNETTISHAM CIF	316,800	FFY 86 - TURNER LAKE PATHOLOGY AND LIMNOLOGY INVESTIGATIONS - COMPLETED	63.2
		SPEEL LAKE INCUBATION PROJECT - COMPLETED	48.0
		FFY 87 - ENGINEERING /DESIGN - COMPLETED	155.0
		LIMNO/LAKE OUTLET INVESTIGATIONS - COMPLETED	100.0
		FFY 88 - CRESCENT LAKE LIMNO./EVALUATIONS	20.0
		18 MILLION EGG FACILITY, CONSTRUCTION - INITIATED 1992	<u>1,100.0</u>
		TOTAL	1,481.2
2. SSRAA - BEAVER FALLS HEAT EXCHANGER ADULT HOLDING, BROODSTOCK RIPENING	88,000	FFY 87- COMPLETED	175.4
		FFY 88 - COMPLETED	170.0
3. FRED - BEAVER FALLS	145,200	FFY 86 - STATE FY87 OPERATIONS	185.0
		FFY 87 - STATE FY88 OPERATIONS	168.6
		NAHA/PATCHING/KARTA EGG TAKE, TRANSPORT EVALUATION	153.6
		FFY 88 - STATE FY89 OPERATIONS	151.5
		MCDONALD/HUGH-SMITH EGG TAKE	
		MCDONALD/HUGH SMITH/VIRGINIA LAKE TRANSPORT, EVALUATION	134.2
		PATCHING /HECKMAN LIMNOLOGY	<u>68.2</u>
		TOTAL	1,206.5
4. FRED - KLAWOCK HATCHERY	29,000	FFY 87 - CONVERSION COMPLETED	110.0
		KLAWOCK/NECK LAKES LIMNOLOGY	<u>50.0</u>
		TOTAL	160.0
5. FRED - SITUK/MOUNTAIN LAKES	40,000	FFY 87 - LIMNOLOGY COMPLETED	18.3
6. FRED - SNETTISHAM, PHASE II	N/A	FFY 88 - INTERIM FACILITY FOR 1990 TRANSBOUNDARY RIVER COMMITMENTS - COMPLETED 1993	90.0
		SWEET HEART /SPEEL LIMNOLOGY STUDIES	27.8
		TBR OPERATIONAL COSTS	70.0
		LONG LAKE /CRATER LAKES FISH SAMPLING	4.0
7. FRED- SNETTISHAM CIF		FFY 89/90 - 18 MILLION EGG CAPACITY - COMPLETED 1993	1,350.0
8. FRED - SWEETHEART/SPEEL		FFY 89/90 - 3 YEARS EVALUATION. - COMPLETED 6/30/94	<u>113.4</u>
		TOTAL	1,673.5
9. FRED - HUGH- SMITH, BAKEWELL BADGER LAKES REHABILITATION	UNDETERMINED	FFY 89/90 - STATE FY 91 REHABILITATION	131.6
10. FRED - MCDONALD LAKE	112,000	FFY 89/90 - TWO YEARS OF REHABILITATION, INITIATED 1991	78.2
11. FRED - REDOUBT LAKE	60,000	FFY 89/90 - FIVE YEARS OF REHABILITATION , INITIATED 1991	455.0
12. NSRAA - REDOUBT LAKE CIF	CANCELLED	FFY 89/90- PROJECT MONIES REPROGRAMMED INTO THREE NEW SOCKEYE SALMON PROJECTS (\$495,000 TOTAL)	-0-

--continued--

TABLE 37. (CONTINUED)

FACILITY OR PROJECT	ADULT PRODUCTION GOAL	STATUS	COST (In Thousands)
13. FRED/SSRAA BEAVER FALLS OPERATIONS	N/A	FFY 89/90 - SSRAA OPERATES UNDER CONTRACT WITH ADF&G	110.0
14. FRED - SNETTISHAM CIF	(INCLUDED IN #15 BELOW)	FFY 89/90 - CHILKAT SOCKEYE MODULES 9 MILLION EGG CAPACITY - COMPLETED 1993	300.0
15. NSRAA-CHILKAT LAKE SOCKEYE ENHANCEMENT	249,943	FFY 89/90 - CHILKAT SOCKEYE ENHANCEMENT 5 MILLION EGGS , COULD INCREASE TO 10 MILLION BEGINS 1993	178.0
16. NSRAA - LAKE EKATERINA INVESTIGATIONS	N/A	FFY 89/90 - LAKE INVESTIGATIONS BEGIN 1993	17.0
17. FRED - SALMON LAKE SOCKEYE REHABILITATION	40,000	FFY 91 - PROJECT BEGINS IN 1993	122.0
18. FRED - SNETTISHAM OFF-HATCHERY REARING	300,000	FFY 91 - PROJECT COMPLETED- BALANCE TO SNETT. FRY/SMOLT	51.9
19. FRED - SNETTISHAM CIF	(INCLUDED IN # 1&7 ABOVE)	FFY 1991 - PROJECT REIMBURSES FOR TBR OPERATIONAL COSTS FY 91 - COMPLETED 1993	108.8
20. CFMD - SNETT. FRY/SMOLT	N/A	INITIATED 7/1/95	17.6
21. CFMD - SNETT. FRY/SMOLT II	N/A	INITIATED 7/1/95	104.9
ADULT PRODUCTION POTENTIAL	1,380,943	TOTAL EXPENDITURES ALL PROJECTS	\$ 6,201.2

TABLE 38. ALASKA SALMON ENHANCEMENT PROGRAM STATUS REPORT FOR COHO SALMON, 1995.

FACILITY OR PROJECT	ADULT PRODUCTION GOAL	STATUS	COST (In Thousands)
1. NSRAA - DEER LAKE COHO BY-PASS	UNDETERMINED	FFY 91 - PROJECT STARTED 1992 - COMPLETED IN 1993	50.0
2. FRED - KETCHIKAN AREA LAKE STOCKING	25,000	FFY 91 - FRY TRANSPORT BEGINS 1993 AND RELEASE. SOME FUNDS TO SNETT. FRY/SMOLT II	114.0
3. FRED - OLD FRANKS BIOENHANCEMENT	25,000	FFY 91 - FRY TRAPPING AND TRANSPORT BEGINS 1993	150.0
ADULT PRODUCTION POTENTIAL	50,000	TOTAL EXPENDITURES ALL PROJECTS	\$ 314.0

TABLE 39. DISTRIBUTION OF FUNDS BY SPECIES, POTENTIAL ADULT PRODUCTION, AND TOTAL ALLOCATIONS, 1995.

SPECIES	POTENTIAL ADULT PRODUCTION	ALLOCATIONS
CHINOOK SALMON	197,600	\$ 11,160,349
SOCKEYE SALMON	1,380,943	\$ 6,201,193
CHUM SALMON	2,040,000	\$ 1,613,468
COHO SALMON	50,000	\$ 314,000
CONTRACT ADMINISTRATION		\$ 412,100
ADMINISTRATIVE OVERHEAD		\$ 54,170
ADF&G TAG LAB COMPUTER HARDWARE AND SOFTWARE		\$ 110,000
TOTAL FUNDING RECEIVED		\$ 19,865,280*
TOTAL U.S./CANADA FUNDING		\$ 20,000,000

* DIFFERENCE DUE TO ADMINISTRATIVE COSTS ASSESSED BY NOAA

DISTRIBUTION OF FUNDS BY AGENCY

NORTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION	\$ 3,020,100
SOUTHERN SOUTHEAST REGIONAL AQUACULTURE ASSOCIATION	\$ 3,536,000
ARMSTRONG-KETA INC.	\$ 1,631,020
ALASKA DEPARTMENT OF FISH AND GAME	\$ 11,678,160
TOTAL ALLOCATIONS	\$ 19,865,280

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