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Fort Richardson Hatchery

by
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INTRODUCTION

Fish production from Fort Richardson Hatchery plays a very important role in sport fisheries enhancement programs in southcentral and interior Alaska. This large, complex facility is operated for the production of rainbow trout, *Salmo gairdneri*, chinook salmon, *Oncorhynchus tshawytscha*, and coho salmon, *O. kisutch*. These fish are stocked into numerous streams, lakes, and marine waters to create or enhance a wide variety of sport fisheries. The hatchery's most important program is production of rainbow trout.

The Fort Richardson Hatchery is a state facility operated by the Fisheries Rehabilitation, Enhancement and Development (FRED) Division of the Alaska Department of Fish and Game (ADF&G). The hatchery is located on the Fort Richardson Military Reservation adjacent to the Central Heat and Power Plant at mile-0.5 Arctic Valley Road (Figure 1). It is easily accessible from Anchorage via the Glenn Highway (Figure 2).

The hatchery is operated as a central incubation facility and is designed to use only well water for fish production. Heat is extracted from the Army's Central Heat and Power Plant effluent (Figures 3 and 4) to warm the well water and accelerate fish growth. A detailed description of the physical plant is provided by Wall and Olito (1986) and Wall (1987).

Current production, which is limited by the availability of well water, is approximately 5 million fish; 55,000 kg, yearly. Typically this will include 2.0 million to 2.5 million rainbow trout fingerlings, 200,000 to 250,000 catchable-sized rainbow trout, 800,000 chinook salmon smolts, and 600,000 coho salmon smolts.

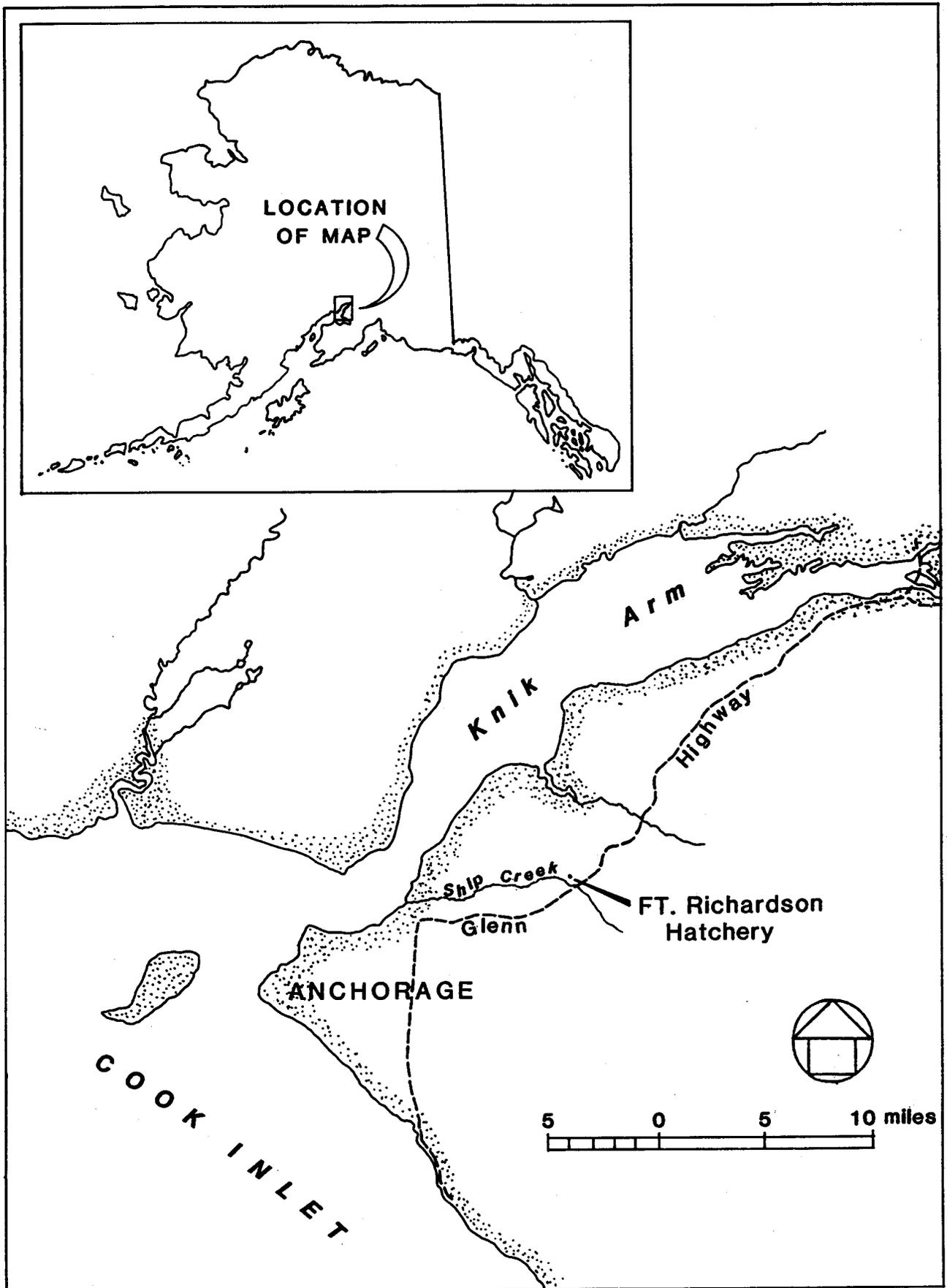


Figure 1. Geographical location of Fort Richardson.

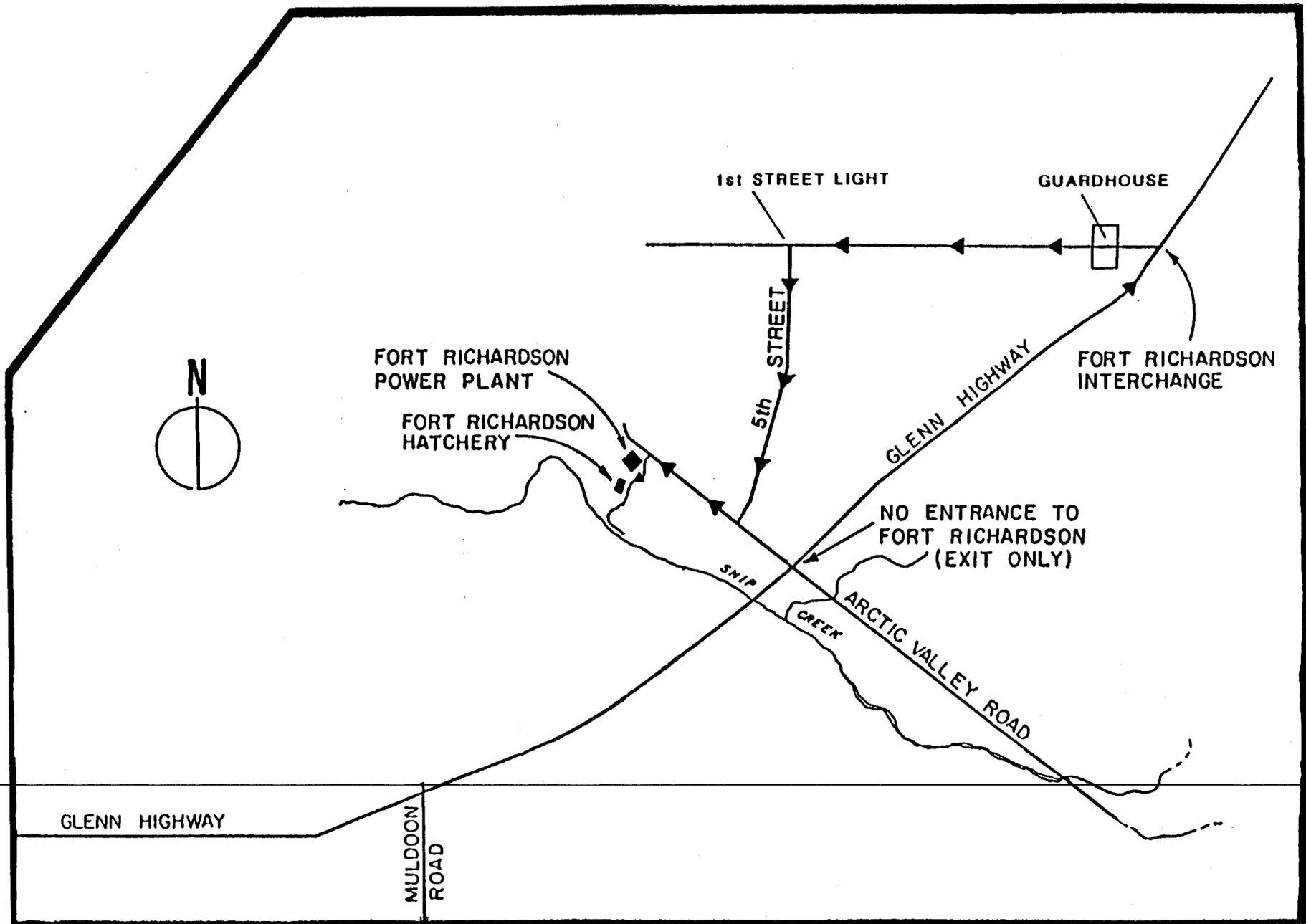


Figure 2. Access route to Fort Richardson Hatchery.

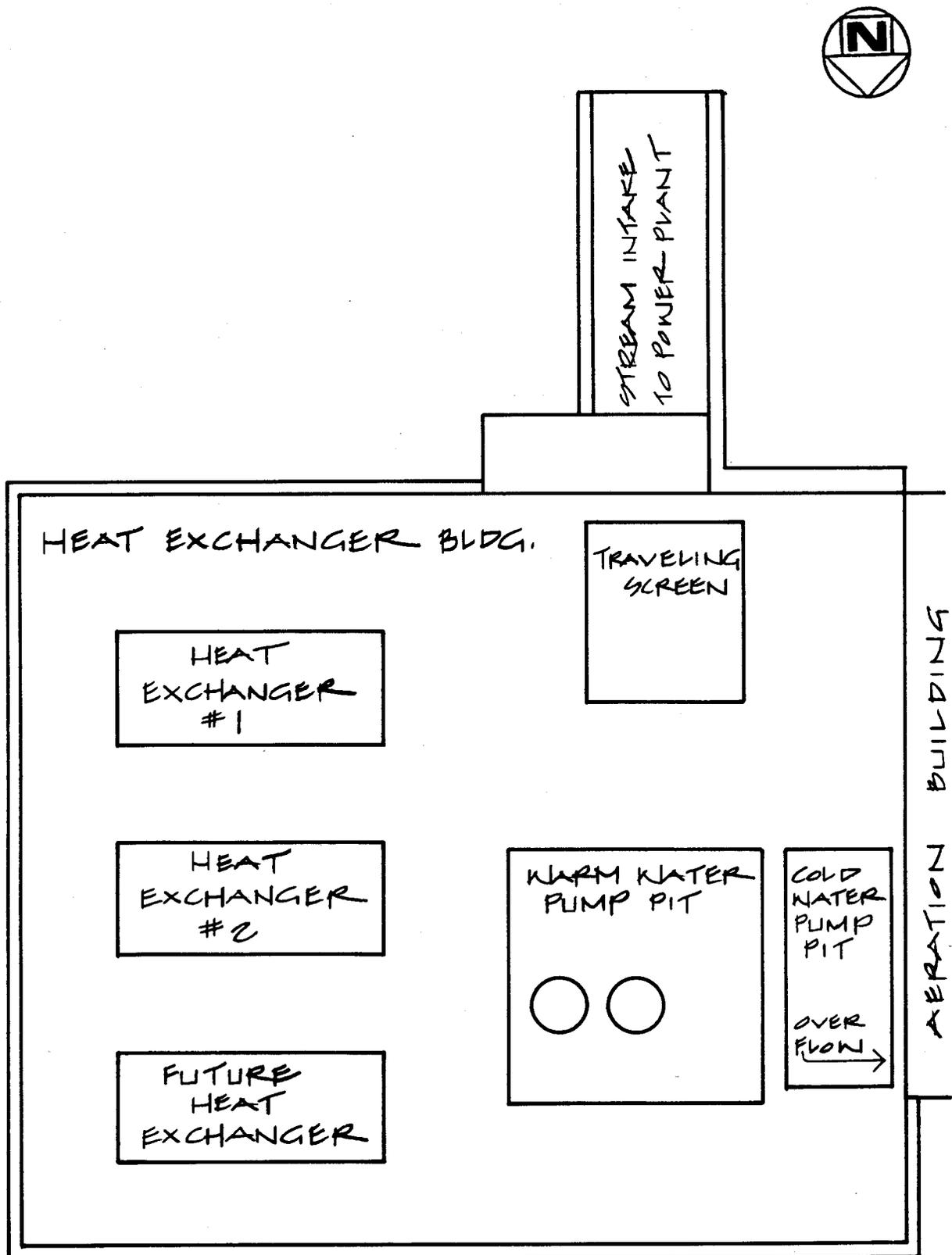


Figure 3. Diagrammatic view of the Fort Richardson Hatchery heat-exchanger building.

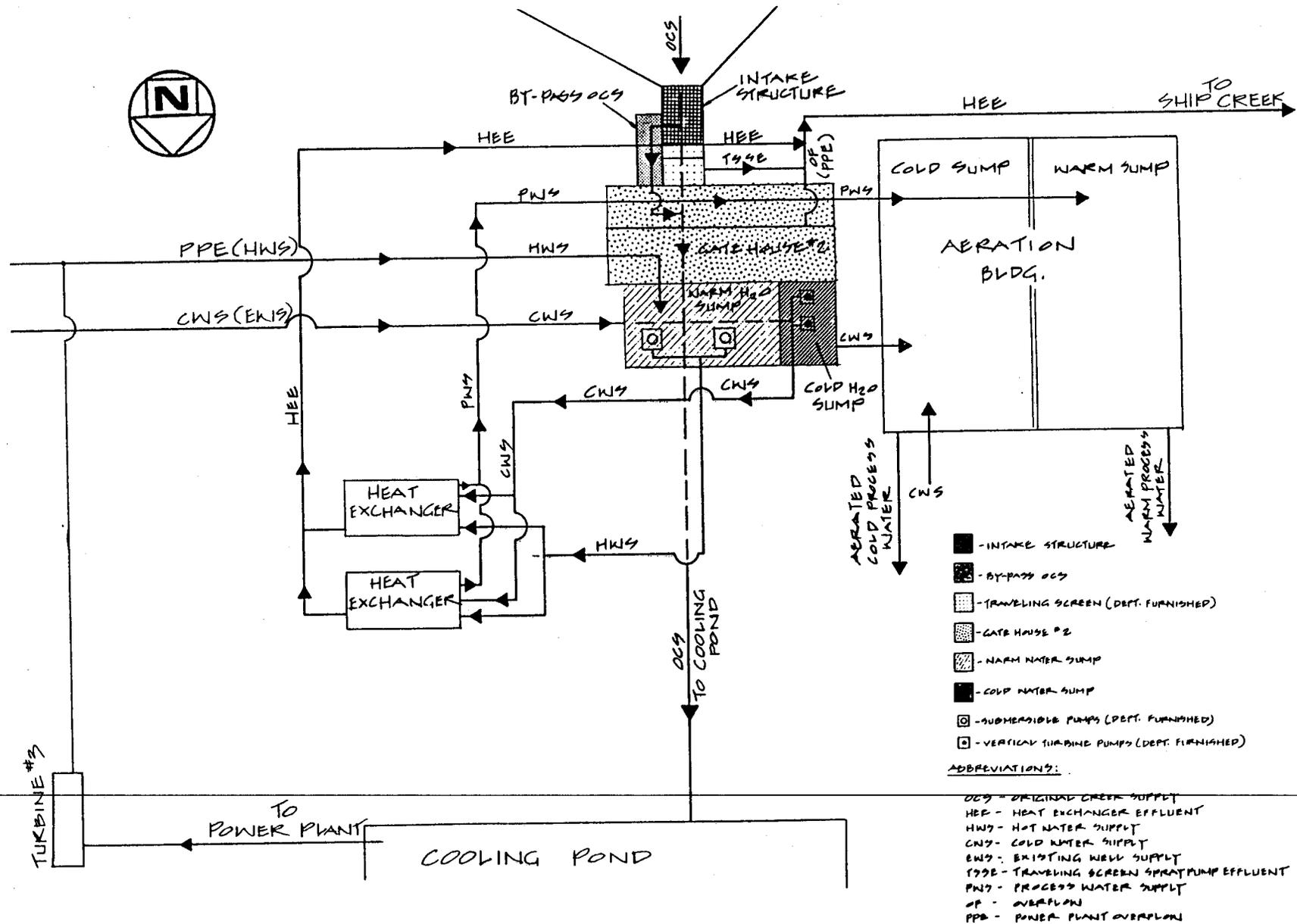


Figure 4. Diagram of water flow through the water-supply structures at Fort Richardson Hatchery.

GOALS AND OBJECTIVES

The primary objective of the Fort Richardson Hatchery is to provide high-quality, disease-free fish for enhancement projects in southcentral and interior Alaska. Specific fish-production goals in FY 1988 were as follows:

1. Rainbow trout
 - A. Transfer 1.4 million eyed eggs to Clear Hatchery.
 - B. Release 1.5 million 2.0-g fingerlings.
 - C. Release 180,000 catchable-sized (100.0-g).
2. Steelhead trout
 - A. Release 50,000 (70.0-g) smolts.
3. Chinook salmon
 - A. Release 1.36 million (15.0-g) smolts.
4. Coho salmon
 - A. Release 60,000 fall (10.0-g) pre-smolts.
 - B. Release 510,000 full-term (20.0-g) smolts.

PERFORMANCE

A total of 5,988,400 eggs and fish, 41,408 kg, was released from the Fort Richardson Hatchery during this reporting period (Appendix). This consisted of 1.8 million eyed rainbow trout eggs, 620,000 rainbow trout fry, 1.85 million rainbow trout fingerlings, 180,200 catchable-sized rainbow trout, 33,550 steelhead trout smolts, 218,300 coho salmon fingerlings, 61,700 coho salmon fall pre-smolts, 508,000 coho salmon smolts, and 713,000 chinook salmon smolts (Table 1). In addition,

Table 1. Fish-production goals and actual production at Fort Richardson Hatchery, 1 July 1987 to 30 June 1988.

Species	Lifestage	Production goal			Actual production			Percentage of goal (%)
		Number (x 1,000)	Average size (g)	Total weight (kg)	Number (x 1,000)	Average size (g)	Total weight (kg)	
Rainbow	eyed-egg	1,400	0.15	210	1,800	0.15	270	129
	fry	0			620 a/	0.3		N/A
	fingerling	1,500	2.00	3,000	1,855	2.00	3,710	124
	catchable	180	100.0	18,000	180	83.00	14,940	100
Steelhead	smolt	50	70.00	3,500	34	61.00	2,047	67 b/
Coho	smolt	510	20.00	10,200	508	21.00	10,668	100
	pre-smolt	60	10.00	600	62	11.00	680	103
	fingerling	0			218 a/	3.00	654	N/A
Chinook	smolt	1,360	15.00	20,400	713	13.00	9,269	52 b/

a/ No goal established; unscheduled production.

approximately 70,000 more catchable-sized rainbow trout were produced and released after 1 July. All production goals were met or exceeded with the exception of steelhead trout and chinook salmon smolts (See Table 1). In both cases, the production was constrained by the numbers of spawners. All of the available steelhead trout broodstock were used for the egg take, but the available number of chinook salmon became limited because of a vandalism problem during the egg take. When it became obvious that chinook salmon egg takes from northern Cook Inlet would not be sufficient to accommodate the production goals, the decision was made to replace this potential reduction in total production with a like-sized increase in catchable-sized rainbow trout production.

Rainbow Trout

Brood Year (BY) 1987:

As of 1 July 1987, approximately 2.1 million rainbow trout fingerlings from BY 1987 were on-hand to meet the goals of 1.5 million fingerlings for release in 1987 and 180,000 catchable-sized fish for 1988 releases. The survival rate from green egg to emergent fry was 84%. Survival from emergent fry to release as fingerlings in late-July and early-August 1987 was 90%, and a total of 1,854,771 fingerlings at an average weight of 2.0 g was released.

After it became apparent that chinook salmon egg-take goals for northern Cook Inlet would not be met, it was decided that this otherwise "lost" production would be offset with an increase in catchable-sized rainbow trout production. Thus, an additional 100,000 rainbow trout fingerlings were held for the following year's "catchable releases," increasing total catchable-sized trout production from 180,000 to 250,000 fish.

The majority of the rainbow trout fingerlings held for the catchable program were moved from the indoor raceways to the outdoor raceways in September. Of those fish remaining inside, 12,000 were reared with a photoperiod of 18-hour day-length at 15°C. These conditions accelerated their growth rate, and when 10,000 fish for replacement broodstock were transferred to the Broodstock Development Center (BDC) in January, they averaged 71.0 g. The remaining 2,000 fish were held indoors until the last week of March when they were released into the "Kid's Fishing Pond" at the Annual Sportfishing Association Sportfishing Fair at an average size of 102.0 g.

The fish that were transferred outside did not grow as rapidly as those held inside. This resulted partly from the rapidly decreasing daily photoperiod and partly from lower water temperatures that ranged from 10°C to 12°C in the outdoor raceways, instead of the targeted 15°C. In addition, 50,000 fish in one raceway were fed a dry feed, Alaska Dry Pellet® (ADP), to compare with our standard feed, Oregon Moist Pellet® (OMP). When this study was terminated in February, the fish that had been fed ADP weighed 10.0 g less than the fish fed OMP (see below).

During March growth rates improved as the day-length increased, but during May there were four power outages that made it impossible to maintain the water temperature at 15°C. Consequently, it was impossible to rear all of the fish to 100 g for release in May, June, and July. Over 50,000, 90.0-g fish, however, were provided for May releases and another 130,000, 50-g to 130-g fish by 30 June 1988. Another 75,000 catchable-sized fish will be released in July and early August to bring the season's total to 255,000 fish, slightly over the increased goal.

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BY 1988:

A total of 6.0 million fertilized eggs, 2.2 and 3.8 million from Big Lake and Swanson River strains, respectively, was received from the BDC between 31 March and 27 April 1988. Rates of fertilization, determined at the four-cell stage, were 90.5% and 88.4% among the Big Lake and Swanson River strains, respectively. Survival from green egg to eyed egg was 79% and 82% among the Big Lake and Swanson River strains, respectively. At the eyed-egg stage, 1.8 million Swanson River-strain eggs were transferred to Clear Hatchery. Among the eggs remaining at Fort Richardson Hatchery, survival to emergence was 67% and 78% among the Big Lake and Swanson River strains, respectively. Micro-eye, a condition in which a weak embryo develops but dies at hatching, was not a serious problem this year. Occurrence was estimated at less than 1% overall.

Emergence of Big Lake-strain fry occurred between 8 and 15 June after 565 temperature units (TU) accumulated, and emergence of Swanson River fry occurred between 15 and 23 June after 540 TUs accumulated. Average amount of yolk remaining at emergence was 11.3% and 12.5% among the Big Lake and Swanson strains, respectively (Table 2). Average weights and lengths at emergence were 0.17 g and 26.3 mm (FL) and 0.14 g and 26.0 mm (FL) among the Big Lake and Swanson River strains, respectively. These values are similar to those from previous years (Wall 1987) and are within the acceptable range.

All BY-1988 rainbow trout were fed Biodiet* with 1.5% desiccated liver added. Feeding rate was based on the hatchery-constant method (Piper et al. 1982) with daily adjustments for temperature variations.

Oxygen contactors were used on all raceways and dissolved-oxygen concentrations were typically 115%-120% of saturation.

Table 2. Average sizes and amounts of remaining yolk among lots of emergent rainbow trout at Fort Richardson Hatchery, 1988.

Strain	Lot	Emergence date	Length (mm)	Weight (g)	Amount of yolk (%)	
					Average	Range
88 Swanson R	1	10 Jun	24.0	0.14	14.0	7-33
88 Swanson R	6	19 Jun	25.0	0.15	11.0	6-17
Average			24.5	0.15	12.5	
88 Big Lake	1	6 Jun	27.0	0.18	10.0	5-17
88 Big Lake	2	6 Jun	26.0	0.17	10.0	5-37
88 Big Lake	3	10 Jun	26.0	0.16	14.0	7-23
Average			26.3	0.17	11.3	

Dissolved-nitrogen gas was controlled at 95%-99% of saturation and total dissolved gases were typically 100.5%-101.5%.

Through 30 June 1988 all lots of rainbow trout fingerlings were responding normally to routine care. Mortality, however, was increasing, apparently because of "pinhead drop-out," and it is likely that the FY 1989 rainbow trout fingerling survival rates will be lower than they were last year.

Steelhead Trout

Approximately 49,000 unpicked, eyed steelhead trout eggs were received from Trail Lakes Hatchery in June 1987. After dead eggs had been removed, 35,000 eyed eggs remained. As a result of poor returns to Campbell Creek, alternate release sites, including Bridge Creek Reservoir near Homer and several landlocked lakes near Anchorage, were selected. A total of 33,550, 61.0-g smolts was released between 29 June and 6 July 1988. No steelhead trout eggs were taken this year and this program will not be continued.

Coho Salmon

BY 1986:

As of 1 July 1987, two coho salmon stocks from BY 1986 were on-hand: 438,000 from the Little Susitna River and 127,000 from Eyak Lake. Approximately 61,800, 10.9-g fall "pre-smolts" from the Eyak Lake stock were released in September into Surprise Cove Lakes in Prince William Sound. The remaining fish from both stocks were reared uneventfully throughout the fall and winter. These were released as full-term smolts between 26 May and 3 June 1988. Feed conversion was 1.4 and survival was 99.5% during this period for the Eyak Lake stock, and feed conversion was 1.4 and survival was 98.7% among the Little Susitna River stock. The average size of Eyak Lake-stock smolts was 22.0 g and smolts from

the Little Susitna River stock averaged 20.0 g. Blood serum sodium-ion concentrations at the time of release were 182.3 meq/liter and 186.2 meq/liter of fish from the Little Susitna River and Eyak Lake stocks, respectively (Table 3). A total of 24,600 coho salmon smolts was coded-wire tagged (Table 4).

BY 1987:

Three lots of coho salmon eggs from BY 1987 were received during September and October: 537,900 from the Little Susitna River, 206,100 from Caswell Creek, and 187,700 from Fleming Spit. Survival rates to the eyed-egg stage among these three groups was 98.0%, 99.7%, and 98.0%, respectively. Survival rates from eyed egg to emergence was 99.8%, 99.7%, and 98.0%, respectively. During June a total of 218,000 fingerlings that were surplus to the program needs was released: 209,000 were released into the Little Susitna River drainage and 9,000 into Caswell Lake. As of 30 June 1988, 318,000, 159,000, and 160,000 fingerlings, respectively, from the three lots were being reared for release as full-term smolts in 1989.

Chinook Salmon

During July 1987, chinook salmon eggs were received, including: 470,300 from Willow Creek; 121,000 from Montana Creek; and 292,000 from the Ninilchik River. Survival rates from green egg to the eyed stage was 86.0%, 89.0%, 85.0%, and 89.0%, respectively. Survival rates to emergence were 96.0%, 98.0%, and 96.0% among the Willow Creek, Montana Creek, and Ninilchik River stocks, respectively. These three lots were reared throughout the winter and spring. Formalin treatments to control *Trichodina*, a common protozoan, were administered twice during this period. These treatments were successful in eradicating this pathogen and no increase in mortality was observed.

Table 3. Average sizes and concentrations of sodium ions in blood serum of coho and chinook salmon produced at Fort Richardson Hatchery, 1988.

Species	Broodstock	Date	Weight (g)	Length (mm)	Sodium ion (meq/liter)
Coho	Eyak Lake	28 Apr	13.9	114.0	178.3
Coho	Eyak Lake	6 May	14.6	115.7	179.6
Coho	Eyak Lake	13 May	15.8	119.1	179.2
Coho	Eyak Lake	20 May	17.9	122.5	173.6
Coho	Eyak Lake	3 Jun	18.4	127.0	186.2
Coho	Little Susitna R.	26 May	18.6	123.0	182.3
Chinook	Ninilchik R.	28 Apr	7.1	86.6	190.2
Chinook	Ninilchik R.	6 May	7.8	88.3	191.1
Chinook	Ninilchik R.	13 May	8.8	90.7	186.7
Chinook	Ninilchik R.	20 May	8.7	92.1	195.5
Chinook	Ninilchik R.	27 May	10.1	96.1	218.4
Chinook	Ninilchik R.	3 Jun	9.7	95.0	204.8
Chinook	Ninilchik R.	10 Jun	9.4	95.5	196.7
Chinook	Ninilchik R.	13 Jul	12.4	106.2	177.4
Chinook	Willow Cr.	28 Apr	4.7	78.0	185.9
Chinook	Willow Cr.	6 May	6.8	85.8	199.2
Chinook	Willow Cr.	13 May	7.4	88.5	192.5
Chinook	Willow Cr.	20 May	7.4	88.5	191.0
Chinook	Willow Cr.	27 May	7.2	87.6	200.7
Chinook	Willow Cr.	3 Jun	8.2	90.5	194.0
Chinook	Willow Cr.	10 Jun	8.7	93.0	195.8
Chinook	Willow Cr.	12 Jul	10.5	99.5	169.5

Table 4. Summary of fish coded-wired tagged at Fort Richardson Hatchery, 1988.

Species	Broodstock	Code	Number marked	Release	
				Site	Date
Chinook	Willow Cr.	31/17/58	20,936	Deception Cr.	12 Jul
Chinook	Montana Cr.	31/17/59	21,615	Montana Cr.	5 Jul
Chinook	Ninilchik R.	31/17/62	30,809	Ninilchik R.	6 Jul
Coho	Little Susitna R.	31/17/61	24,628	Nancy Lake	31 May

The total number of chinook salmon eggs received for the northern Cook Inlet enhancement projects (Willow Creek, Sheep Creek, and Montana Creek) was less than one-half of the goal because of vandalism at the Willow Creek weir and subsequent flood conditions throughout the area. Thus, when the fingerlings were moved from the indoor raceways to the outdoor raceways in January, they were reapportioned as follows: 204,700 from Willow Creek stock for release into Willow Creek; 132,000 from Willow Creek for release into Sheep Creek; and 45,000 from Willow Creek and 87,000 from Montana Creek combined for release into Montana Creek.

The target size of 15.0 g and the release timing of 5-15 June, was not met because of four major power outages that occurred during May. Water flow was interrupted and it became impossible to maintain adequate rearing water temperatures. As a result, the first lot of smolts was released into the Ninilchik River with an average weight of 13.8 g between 30 June and 6 July 1988. The remaining lots of smolts were released by 12 July with an overall average weight of 12.0 g. Average blood serum sodium-ion concentrations at the time of release were 169.5 meq/liter, and 177.4 meq/liter among the Willow Creek and Ninilchik River stocks, respectively (See Table 3). A total of 75,781 chinook salmon smolts was coded-wire tagged (See Table 4).

PROJECTS AND EVALUATION

Fish produced at Fort Richardson Hatchery are released at a wide variety of locations and are targeted for sport fishermen. Thus, detailed return data are not readily available or comprehensive. During this past year we began to attain good results at some of the more intensively monitored return sites. For example, at Fleming Spit in Cordova, a new intensive sport fishery has been created by releasing coho salmon smolts from Fort Richardson. In

1987 a return of approximately 6,500 adult coho salmon yielded almost 7,000 recreational-fishing days, where only two years earlier essentially no fishery had existed (Larry Peltz¹, personal communication). In the Little Susitna River, approximately 38% of the 1987 coho salmon sport-fish harvest was of hatchery origin (Larry Engel², personal communication). This provided what was described as an "average" fishing year for the sport fisherman where, without the hatchery contribution, it would have been well below average or closed entirely.

This year was the first year that significant numbers of chinook salmon returned to northern Cook Inlet streams from Fort Richardson Hatchery releases. It is estimated that 20% of the chinook salmon harvested in Willow Creek were of hatchery origin and this contribution was largely responsible for the extra weekend that this fishery remained open.

Economic values associated with sport fisheries have always been difficult to estimate. However, in 1987 a report prepared by Jones and Stokes Associates, Inc., for the State of Alaska entitled "Southcentral Alaska Sport Fishing Economic Study" (1987) presented enough information to provide an approximate estimate. The report showed that sport fishing in southcentral Alaska is big business. Total output, employment, and earnings in Alaska from angler spending in 1986 was estimated at more than \$206 million and supported the equivalent of over 2,800 full-time jobs. Angler spending outside of Alaska associated with sport fishing in southcentral Alaska was valued at \$33.8 million. Further, when all expenditures and associated activities were considered, total output, employment, and income outside Alaska generated by angler spending associated with sport

¹ ADF&G, FRED Division, Cordova, Alaska.

² ADF&G, Sport Fish Division, Palmer, Alaska.

fishing in southcentral Alaska in 1986 was estimated at \$420,650,000 (Jones and Stokes 1987).

Economic values accruing directly from programs created or enhanced by Fort Richardson Hatchery are difficult to evaluate. However, according to Jones and Stokes (1987), the Little Susitna coho salmon fishery had an estimated value of \$709,000 in 1986. If hatchery-produced fish from Fort Richardson Hatchery contributed 38% to the fishery, an estimate of this value would be \$269,420. The coho salmon fishery at Fleming Spit would have an estimated value of approximately \$455,000, based on \$65 per resident angler-day (Jones and Stokes 1987). The eastside Susitna roadside-stream chinook salmon fishery (includes Willow Creek, Sheep Creek, and Montana Creek) had a value of \$942,000 (Jones and Stokes 1987). All of these systems are being included in the enhancement program; so, assuming that adults from Fort Richardson Hatchery releases would contribute at least 20% of the catch, these fish would have had a value of \$188,400.

Values associated with the rainbow trout fishery were also addressed in the Jones and Stokes (1987) report. It was estimated that the Kepler Lake Complex generated \$164,000 and the Anchorage area stocked lakes had a value of \$1,711,000. These are only two of the rainbow trout fisheries provided by Fort Richardson Hatchery. To further underscore the potential value of the Anchorage Lakes fishery, the "net willingness-to-pay" for this particular opportunity was \$2,425,000. The Chena Lakes rainbow trout fishery, while not addressed in the report, generated some 8,800 angler-days in 1987 (Michael Doxey³, personal communication). If the value of that fishery is only 20% of the resident angler-day value of \$65 per day, for example, it would be worth an estimated \$114,400. These are only a few

³ ADF&G, Sport Fish Division, Fairbanks, Alaska.

selected fisheries provided by Fort Richardson Hatchery programs, but they have a combined estimated value of over \$2.9 million.

Marking Program

During 1988 approximately 100,000 fish were marked by removing the adipose fin and implanting a coded-wire tag. Included in this number were over 24,600 Little Susitna River coho salmon smolts, 42,000 chinook salmon smolts from the Willow Creek and Montana Creek stocks, and 30,800 chinook salmon smolts from the Ninilchik River stock (See Table 4). Catch data from these marked fish will provide information to evaluate the contribution of Fort Richardson Hatchery releases to fisheries and survival rates of the released fish.

Seawater Challenge Testing

The seawater challenge test, a procedure done annually to determine smolt osmoregulatory competency in full-strength seawater, was administered routinely to three lots of salmon smolts over a 12-week period (See Table 3). Concentrations of sodium ions in the blood serum of the chinook salmon smolts from Willow Creek varied from a high of 190.2 meq/liter at the beginning of the study to a low of 169.5 meq/liter at release. The values measured from the Eyak Lake-lot of coho salmon increased from 178.3 meq/liter on 28 April to a high of 186.2 meq/liter on 3 June, following a low of 173.6 meq/liter on 20 May. This suggests that a different release timing might have been in order or that the blood serum sodium-ion concentration may be affected by another factor. The timing of this release, however, is determined by the ferry-system schedule because the ferry must be used to transport the transport vehicle to the release site. The smolts are released into a brackish-water lagoon, so they have an opportunity to develop osmoregulatory capabilities before entering full-strength seawater.

Feed Comparison

A comparison of our standard feed, OMP, and a locally-produced dry diet, ADP, was conducted between 4 August 1987 and 13 February 1988. The feed trials were begun in the indoor raceways when the fish weighed approximately 3.0 g. Before 4 August 1987 both study groups of fish had been fed Biodiet. During the study, the ADP-fed fish typically had a weight gain of 3.5-7.0 mg/TU/day, while those fed OMP had a weight gain of 6.5-12.5 mg/TU/day. The study was terminated on 13 February 1988 when it became apparent that if the study continued, the fish fed ADP would be too small to release on schedule. At the end of the study, on 13 February the fish fed ADP had an average weight of 20.7 g, while those fed OMP had an average weight of 30.4 g (Figure 5).

Facility Development

No major facility modifications were undertaken during this reporting period. The heat-exchanger system, completed in June 1987, performed as expected and well water was used much more efficiently than before. With this efficiency, over 41,000 kg of fish were produced and released during the 1988 season. A filter was installed on one heat exchanger to reduce the frequency of cleaning, and a crack in a concrete bulkhead was repaired to prevent creek water from mixing with well water.

Power outages resulted in the total loss of water flow to the hatchery four times during May. Fish mortalities were averted by replacing the well water with Ship Creek water but this, in turn, caused a great concern that serious diseases, particularly among the rainbow trout broodstock, might develop. A state-of-emergency was declared and the procurement of a standby generator system to avoid a recurrence is now in progress.

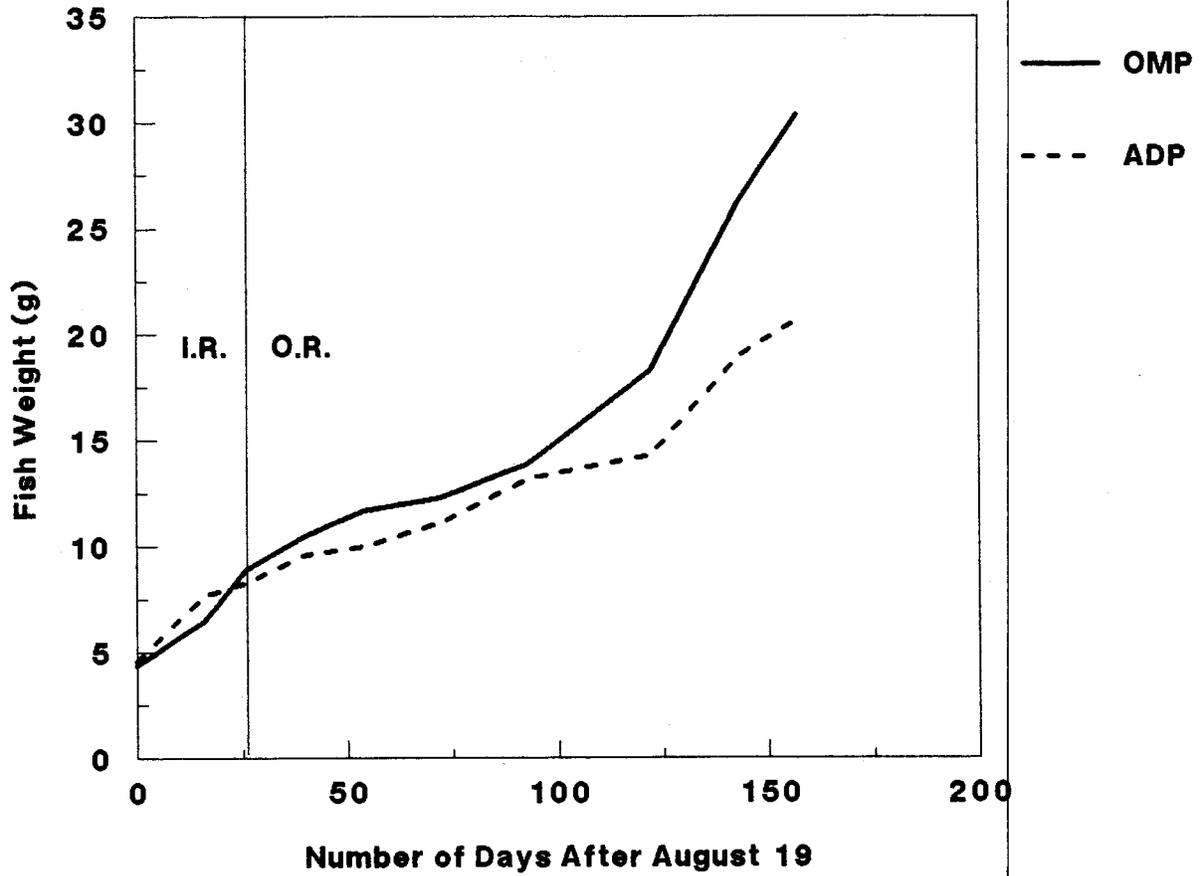


Figure 5. Average weight of rainbow trout fingerlings fed Oregon Moist Pellet (OMP) and Alaska Dry Pellet (ADP) (I.R. = Indoor Raceways; O.R. = Outdoor Raceways).

SUMMARY

Production during this reporting period was 6 million fish that weighed over 41,000 kg; a five-fold increase in biomass compared to FY 1987. Rainbow trout eggs transferred to Clear Hatchery exceeded the goal by 29%. Rainbow trout fingerling production, at 1.85 million, was 24% over the goal. Production of catchable-sized rainbow trout met the original goal of 180,000 fish and additional fish will be released during July and August 1988, so the fiscal year total will be slightly more than the revised goal of 250,000. The catchable-sized rainbow trout weighed an average of 83.0 g, smaller than the goal of 100.0 g. Only 67% of the steelhead trout smolt goal of 50,000 fish was produced because of limited number of broodstock that could be collected. Return of adults has been poor and this program will not be continued. The release of 713,000 chinook salmon smolts was well below the goal of 1.36 million, the direct result of vandalism at the Willow Creek weir. Subsequent flooding made recapture of sufficient broodstock impossible. Production of 62,000 fall pre-smolts and 508,000 full-term coho salmon smolts met the goal.

A cursory estimate of the economic value of the sport-fishery enhancement programs at Fort Richardson Hatchery was in excess of \$2.9 million.

A total of 4,770,000 fish and eggs are scheduled for release from Fort Richardson Hatchery in 1989 (Table 5). These include: rainbow trout--1,600,000 eyed eggs, 1,500,000 fingerlings, and 230,000 catchables; coho salmon--600,000 smolts; and, chinook salmon--840,000 smolts and post-smolts.

Table 5. Fish scheduled for release from Fort Richardson Hatchery, FY 1989.

Species	Lifestage	Number	Average size (g)	Total weight (kg)
Rainbow	eyed-egg	1,600,000	0.15	240
	fingerling	1,500,000	1.00	1,500
	catchable	230,000	100.00	23,000
Coho	smolt	600,000	20.00	12,000
Chinook	smolt	800,000	15.00	12,000
	post-smolt	40,000	70.00	2,800

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APPENDIX

APPENDIX.

Fort Richardson Hatchery stocking records, Fiscal Year 1988.

FT RICHARDSON HATCHERY STOCKING RECORDS

September 13, 1988

STOCKING DATE	SP BY	BROOD STOCK	AGE	NUMBER STOCKED	STOCKING LOCATION	MARKS	CWTNO	WEIGHT	TRIP #	AREA	COMMUNITY
9/24/87	KS 87	DESHKA RIVE	B	185,643	ESTER HATCHERY	NO		0.029	49	COROOVA	ESTER ISLA
6/30/88	KS 87	NINILCHIK R	SM	117,910	NINILCHIK R	NO		15.400	42	SOLDOTNA	HOMER
7/05/88	KS 87	MONTANA CR	SM	21,615	MONTANA CR	AD CW 311759		12.300	49	PALMER	WILLOW
7/05/88	KS 87	MONTANA CR	SM	110,850	MONTANA CR	NO		12.300	49	PALMER	WILLOW
7/06/88	KS 87	NINILCHIK R	SM	30,809	NINILCHIK R	AD CW 311762		12.500	50	SOLDOTNA	HOMER
7/06/88	KS 87	NINILCHIK R	SM	98,610	NINILCHIK R	NO		12.500	50	SOLDOTNA	HOMER
7/07/88	KS 87	SHEEP/WILLO	SM	132,125	SHEEP CR	NO		11.700	52	PALMER	WILLOW
7/12/88	KS 87	WILLOW CR	SM	20,936	DECEPTION CR	AD CW 311758		10.900	53	PALMER	WILLOW
7/12/88	KS 87	WILLOW CR	SM	180,155	DECEPTION CR	NO		10.900	53	PALMER	WILLOW
SUB-TOTAL				898,653							
7/14/87	RT 87	SWANSON RIV	F	3,706	RAVINE	NO		1.300	19	PALMER	SUTTON
7/14/87	RT 87	SWANSON RIV	F	5,850	REED	NO		1.300	19	PALMER	PALMER
7/14/87	RT 87	SWANSON RIV	F	5,434	WALBY	NO		1.300	19	PALMER	PALMER
7/15/87	RT 87	SWANSON RIV	F	1,897	TIGGER	NO		1.300	20	PALMER	TALKEETNA
7/20/87	RT 87	BIG LAKE	F	3,000	AUREL	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	BIG LAKE	F	3,600	BIG	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	BIG LAKE	F	1,400	CAROLINE	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	BIG LAKE	F	1,150	CICELY	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	BIG LAKE	F	1,000	JACK	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	BIG LAKE	F	2,800	LEE	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	BIG LAKE	F	1,600	LILLY POND	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	BIG LAKE	F	1,600	MARGARET	NO		1.500	22	KODIAK	KODIAK
7/20/87	RT 87	SWANSON RIV	F	4,578	BEAR PAW	NO		1.350	21	PALMER	PALMER
7/20/87	RT 87	SWANSON RIV	F	7,030	LOON	NO		1.350	21	PALMER	PALMER
7/21/87	RT 87	BIG LAKE	F	2,000	BULL	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	3,300	CASCADE	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	5,150	DOLGDI	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	1,550	DRAGONFLY	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	3,250	HIETMAN	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	1,000	HORSESHOE	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	3,600	LONG	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	1,600	LUPINE	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	6,000	TANIGNAK	NO		1.500	22	KODIAK	KODIAK
7/21/87	RT 87	BIG LAKE	F	4,500	TWIN	NO		1.500	22	KODIAK	KODIAK
7/30/87	RT 87	BIG LAKE	F	8,400	BEVERLY	NO		2.300	23	PALMER	PALMER
7/30/87	RT 87	BIG LAKE	F	13,000	KALMBACK	NO		2.300	23	PALMER	WASILLA
7/30/87	RT 87	BIG LAKE	F	9,600	LALEN	NO		2.300	23	PALMER	WASILLA
7/30/87	RT 87	BIG LAKE	F	45,800	SEYMOUR	NO		2.300	23	PALMER	WILLOW
7/30/87	RT 87	BIG LAKE	F	17,300	VISNAW	NO		2.300	23	PALMER	WASILLA
7/31/87	RT 87	BIG LAKE	F	16,100	BIG BEAVER	NO		2.200	24	PALMER	BIG LAKE
7/31/87	RT 87	BIG LAKE	F	31,726	EKLUTNA LAKE	NO		2.200	25	PALMER	EKLUTNA
7/31/87	RT 87	BIG LAKE	F	2,300	LAZY	NO		2.200	24	PALMER	BIG LAKE
7/31/87	RT 87	BIG LAKE	F	4,500	LONG	NO		2.200	24	PALMER	BIG LAKE
7/31/87	RT 87	BIG LAKE	F	2,050	LYNDA	NO		2.200	24	PALMER	BIG LAKE
7/31/87	RT 87	BIG LAKE	F	6,020	STEPHAN	NO		2.200	24	PALMER	BIG LAKE
7/31/87	RT 87	BIG LAKE	F	6,310	TWIN	NO		2.200	24	PALMER	BIG LAKE
7/31/87	RT 87	BIG LAKE	F	10,200	WEST BEAVER	NO		2.200	24	PALMER	BIG LAKE

Appendix (continued).

FT RICHARDSON HATCHERY STOCKING RECORDS

September 13, 198

STOCKING DATE	SP BY	BROOD STOCK	AGE	NUMBER STOCKED	STOCKING LOCATION	MARKS	CWTNO	WEIGHT	TRIP #	AREA	COMMUNITY
8/03/87	RT 87	SWANSON RIV	F	500	DRAGONFLY	NO		1.760	28	KODIAK	KODIAK
8/03/87	RT 87	SWANSON RIV	F	6,000	JUPITER	NO		1.760	28	KODIAK	KODIAK
8/03/87	RT 87	SWANSON RIV	F	1,000	LONG	NO		1.760	28	KODIAK	KODIAK
8/03/87	RT 87	SWANSON RIV	F	55,600	DIAMOND	NO		2.000	26	PALMER	BIG LAKE
8/03/87	RT 87	SWANSON RIV	F	8,019	IDA	NO		1.920	27	PALMER	SUTTON
8/03/87	RT 87	SWANSON RIV	F	1,800	IRENE	NO		1.920	27	PALMER	SUTTON
8/03/87	RT 87	SWANSON RIV	F	5,800	KEPLER-BRADLEY	NO		1.920	27	PALMER	PALMER
8/03/87	RT 87	SWANSON RIV	F	11,300	MARION	NO		2.000	26	PALMER	WASILLA
8/03/87	RT 87	SWANSON RIV	F	6,100	MATANUSKA LAKE	NO		1.920	27	PALMER	PALMER
8/03/87	RT 87	SWANSON RIV	F	8,300	MEMORY	NO		2.000	26	PALMER	WASILLA
8/03/87	RT 87	SWANSON RIV	F	37,200	MORVRO	NO		2.000	26	PALMER	BIG LAKE
8/03/87	RT 87	SWANSON RIV	F	9,800	PRATOR	NO		2.000	26	PALMER	BIG LAKE
8/03/87	RT 87	SWANSON RIV	F	5,897	ROCKY	NO		2.000	26	PALMER	BIG LAKE
8/03/87	RT 87	SWANSON RIV	F	1,800	SLIPPER	NO		1.920	27	PALMER	SUTTON
8/03/87	RT 87	SWANSON RIV	F	10,800	SOUTH ROLLEY	NO		2.000	26	PALMER	WILLOW
8/04/87	RT 87	SWANSON RIV	F	5,200	BARLEY	NO		1.800	30	PALMER	PT. MCKENZ
8/04/87	RT 87	SWANSON RIV	F	13,170	CRYSTAL	NO		1.900	31	PALMER	WILLOW
8/04/87	RT 87	SWANSON RIV	F	3,100	DAWN	NO		1.800	30	PALMER	PT. MCKENZ
8/04/87	RT 87	SWANSON RIV	F	5,460	FLORENCE	NO		1.900	31	PALMER	WILLOW
8/04/87	RT 87	SWANSON RIV	F	5,800	HONEYBEE	NO		1.900	31	PALMER	WILLOW
8/04/87	RT 87	SWANSON RIV	F	30,400	KASHWITNA	NO		1.900	31	PALMER	TALKEETNA
8/04/87	RT 87	SWANSON RIV	F	10,000	KNIK	NO		1.800	30	PALMER	KNIK
8/04/87	RT 87	SWANSON RIV	F	7,000	LYNNE	NO		1.900	31	PALMER	WILLOW
8/04/87	RT 87	SWANSON RIV	F	16,600	N. FRIEND	NO		1.800	31	PALMER	TALKEETNA
8/04/87	RT 87	SWANSON RIV	F	12,800	S. FRIEND	NO		1.800	31	PALMER	TALKEETNA
8/04/87	RT 87	SWANSON RIV	F	7,940	Y LAKE	NO		1.800	31	PALMER	TALKEETNA
8/04/87	RT 87	SWANSON RIV	F	1,612	SUSAN	NO		1.920	29	SOLDOTNA	SELOOVIA
8/05/87	RT 87	SWANSON RIV	F	20,004	CLUNIE	NO		2.000	32	ANCHORAGE	FT. RICHA
8/05/87	RT 87	SWANSON RIV	F	20,082	OTTER	NO		2.000	32	ANCHORAGE	FT. RICHA
8/06/87	RT 87	SWANSON RIV	F	800	BUFFALO	NO		1.980	35	GLENNALLEN	GLENNALLEN
8/06/87	RT 87	SWANSON RIV	F	9,000	MIRROR	NO		1.980	35	GLENNALLEN	GLENNALLEN
8/06/87	RT 87	SWANSON RIV	F	2,400	PEANUT	NO		2.000	35	GLENNALLEN	GLENNALLEN
8/06/87	RT 87	SWANSON RIV	F	30,024	TOLSONA	NO		1.980	35	GLENNALLEN	GLENNALLEN
8/06/87	RT 85	BIG LAKE	I	1,200	STATE FAIR	NO		227.000	34	PALMER	PALMER
8/06/87	RT 82	BIG LAKE	I	92	STATE FAIR	NO		1,000.000	34	PALMER	PALMER
8/06/87	RT 87	SWANSON RIV	F	4,140	WEINER	NO		1.980	35	PALMER	SUTTON
8/06/87	RT 87	SWANSON RIV	F	3,400	2-MILE	NO		1.980	33	VALDEZ	CHITNA
8/06/87	RT 87	SWANSON RIV	F	8,000	WORTHINGTON	NO		1.980	33	VALDEZ	VALDEZ
8/07/87	RT 87	SWANSON RIV	F	11,700	CABIN	NO		2.100	36	SOLDOTNA	KENAI
8/07/87	RT 87	SWANSON RIV	F	2,000	CECILE	NO		2.100	36	SOLDOTNA	KENAI
8/07/87	RT 87	SWANSON RIV	F	18,000	DOUGLAS	NO		2.100	36	SOLDOTNA	KENAI
8/07/87	RT 87	SWANSON RIV	F	20,000	ENCELEWSKI	NO		2.100	36	SOLDOTNA	KASILOF
8/07/87	RT 87	SWANSON RIV	F	3,000	JEROME	NO		2.100	36	SOLDOTNA	COOPER LAN
8/07/87	RT 87	SWANSON RIV	F	34,000	LONGMARE	NO		2.100	36	SOLDOTNA	STERLING
8/07/87	RT 87	SWANSON RIV	F	3,000	QUINTIN	NO		2.100	36	SOLDOTNA	KASILOF
8/07/87	RT 87	SWANSON RIV	F	15,000	SPORT	NO		2.100	36	SOLDOTNA	SOLOOTNA
8/07/87	RT 87	SWANSON RIV	F	24,800	STORMY	NO		2.100	36	SOLDOTNA	KENAI
8/10/87	RT 87	SWANSON RIV	F	6,812	BIG NO LUCK	NO		2.300	37	PALMER	WILLOW
8/10/87	RT 87	SWANSON RIV	F	33,038	CARPENTER	NO		2.200	37	PALMER	PT. MCKENZ
8/10/87	RT 87	SWANSON RIV	F	8,404	EAST TWIN	NO		2.200	37	PALMER	WILLOW

Appendix (continued).

 FT RICHARDSON HATCHERY STOCKING RECORDS
 September 13, 198

STOCKING DATE	SP BY	BROOD STOCK	AGE	NUMBER STOCKED	STOCKING LOCATION	MARKS	CWTNO	WEIGHT	TRIP #	AREA	COMMUNITY
8/10/87	RT 87	SWANSON RIV	F	12,007	LITTLE LONELY	NO		2.300	37	PALMER	WILLOW
8/10/87	RT 87	SWANSON RIV	F	7,458	LONG	NO		2.300	37	PALMER	PALMER
8/10/87	RT 87	SWANSON RIV	F	13,450	LORRAINE	NO		2.200	37	PALMER	PALMER
8/10/87	RT 87	SWANSON RIV	F	103,973	SCHULIN	NO		1.990	38	PALMER	CORDOVA
8/10/87	RT 87	SWANSON RIV	F	30,714	TWIN ISLAND	NO		2.200	37	PALMER	PT. MCKENZ
8/10/87	RT 87	SWANSON RIV	F	36,600	VERA	NO		2.300	37	PALMER	WILLOW
8/10/87	RT 87	SWANSON RIV	F	10,950	X LAKE	NO		2.300	37	PALMER	WILLOW
8/10/87	RT 87	SWANSON RIV	F	38,970	TROUT	NO		2.300	38	SOLDOTNA	COOPER LAN
8/11/87	RT 87	SWANSON RIV	F	227,917	QUARTZ	NO		2.400	40	FAIRBANKS	FAIRBANKS
8/11/87	RT 87	SWANSON RIV	F	28,336	SCULPIN	NO		2.300	39	GLENNALLEN	GLENNALLEN
8/12/87	RT 87	SWANSON RIV	F	121,331	EKLUTNA LAKE	NO		2.300	42	ANCHORAGE	EKLUTNA
8/12/87	RT 87	SWANSON RIV	F	9,897	CARIBOU	NO		2.300	41	GLENNALLEN	PAXTON
8/12/87	RT 87	SWANSON RIV	F	20,041	SOUTH JANS	NO		2.300	41	GLENNALLEN	CHITNA
8/12/87	RT 87	SWANSON RIV	F	15,716	TOLSONA MT.	NO		2.300	41	GLENNALLEN	GLENNALLEN
8/13/87	RT 87	SWANSON RIV	F	74,564	EKLUTNA LAKE	NO		2.000	43	ANCHORAGE	EKLUTNA
8/14/87	RT 87	SWANSON RIV	F	88,896	EKLUTNA LAKE	NO		1.800	44	ANCHORAGE	EKLUTNA
8/17/87	RT 87	SWANSON RIV	F	3,001	LONG	NO		2.900	45	GLENNALLEN	COPPER CEN
8/18/87	RT 87	SWANSON RIV	F	143,797	EKLUTNA LAKE	NO		2.200	46	ANCHORAGE	EKLUTNA
8/20/87	RT 87	SWANSON RIV	F	4,000	MERIDIAN	NO		3.100	47	SOLDOTNA	MOOSE PASS
8/20/87	RT 87	SWANSON RIV	F	63,950	SUMMIT	NO		3.100	47	SOLDOTNA	SOLDOTNA
3/25/88	RT 87	BIG LAKE	CA	700	TRADE FAIR POND	NO		102.300	1	ANCHORAGE	ANCHORAGE
3/27/88	RT 87	BIG LAKE	CA	1,000	OTTER L	NO		102.300	2	ANCHORAGE	FT RICHARD
5/06/88	RT 87	BIG LAKE	CA	10,694	LUCILLE L	NO		67.500	3	PALMER	WASILLA
5/09/88	RT 87	BIG LAKE	CA	9,560	LUCILLE L	NO		70.600	4	PALMER	WASILLA
5/12/88	RT 88	SWANSON R	EY	1,410,000	CLEAR HATCHERY	NO		0.150	4	FAIRBANKS	CLEAR
5/17/88	RT 87	BIG LAKE	CA	1,000	DISHNO L	NO		71.000	7	ANCHORAGE	FT RICHARD
5/17/88	RT 87	BIG LAKE	CA	768	FISH L	NO		71.000	8	ANCHORAGE	ELMENDORF
5/17/88	RT 87	BIG LAKE	CA	563	SPRING L	NO		71.000	7	ANCHORAGE	ELMENDORF
5/17/88	RT 87	BIG LAKE	CA	1,024	THOMPSON L	NO		71.000	6	ANCHORAGE	FT RICHARD
5/17/88	RT 87	BIG LAKE	CA	2,960	WALDEN L	NO		71.000	5	ANCHORAGE	FT RICHARD
5/19/88	RT 87	BIG LAKE	CA	1,508	CLUNIE L	NO		72.000	11	ANCHORAGE	FT RICHARD
5/19/88	RT 87	BIG LAKE	CA	1,505	LOWER FIRE L	NO		72.000	10	ANCHORAGE	EAGLE RIVE
5/19/88	RT 87	BIG LAKE	CA	11,792	CHENA L	NO		95.400	9	FAIRBANKS	FAIRBANKS
5/20/88	RT 87	BIG LAKE	CA	1,543	CAMPBELL CR	NO		90.000	20	ANCHORAGE	ANCHORAGE
5/20/88	RT 87	BIG LAKE	CA	1,507	GWEN L	NO		72.000	12	ANCHORAGE	ELMENDORF
5/20/88	RT 87	BIG LAKE	CA	400	UPPER 6 MILE	NO		72.000	13	ANCHORAGE	ELMENDORF
5/23/88	RT 87	BIG LAKE	CA	1,821	IRENE L	NO		94.000	14	PALMER	PALMER
5/23/88	RT 87	BIG LAKE	CA	6,416	KEPLER/BRADLEY L	NO		87.000	15	PALMER	PALMER
5/23/88	RT 87	BIG LAKE	CA	7,189	MATANUSKA L	NO		87.000	15	PALMER	PALMER
5/24/88	RT 87	BIG LAKE	CA	1,488	CAMPBELL PT	NO		94.000	17	ANCHORAGE	ANCHORAGE
5/24/88	RT 87	BIG LAKE	CA	2,936	CHENEY L	NO		94.000	17	ANCHORAGE	ANCHORAGE
5/24/88	RT 87	BIG LAKE	CA	2,878	OELONG L	NO		94.000	17	ANCHORAGE	ANCHORAGE
5/24/88	RT 87	BIG LAKE	CA	6,034	JEWELL L	NO		87.000	16	ANCHORAGE	ANCHORAGE
5/24/88	RT 87	BIG LAKE	CA	4,056	SANO L	NO		91.000	16	ANCHORAGE	ANCHORAGE
5/24/88	RT 88	SWANSON R	EY	252,000	CLEAR HATCHERY	NO		0.150	4	FAIRBANKS	CLEAR
5/25/88	RT 87	BIG LAKE	CA	1,600	GREEN L	NO		90.000	18	ANCHORAGE	ELMENDORF
5/25/88	RT 87	BIG LAKE	CA	1,414	HILLBERG L	NO		90.000	18	ANCHORAGE	ELMENDORF
5/25/88	RT 87	BIG LAKE	CA	1,513	LOWER FIRE L	NO		90.000	19	ANCHORAGE	EAGLE RIVE
5/25/88	RT 87	BIG LAKE	CA	3,026	OTTER L	NO		90.000	18	ANCHORAGE	FT RICHARD
5/25/88	RT 87	BIG LAKE	CA	808	TRIANGLE L	NO		90.000	18	ANCHORAGE	ELMENDORF

Appendix (continued).

FT RICHARDSON HATCHERY STOCKING RECORDS
September 13, 1988

STOCKING DATE	SP BY	BROOD STOCK	AGE	NUMBER STOCKED	STOCKING LOCATION	MARKS	CWTNO	WEIGHT	TRIP #	AREA	COMMUNITY
5/26/88	RT 87	BIG LAKE	CA	1,538	TAKU L	NO		90.000	24	ANCHORAGE	ANCHORAGE
6/01/88	RT 87	BIG LAKE	CA	545	RUTH L	NO		90.000	27	ANCHORAGE	VALDEZ
6/01/88	RT 87	BIG LAKE	CA	8,008	BIG LAKE	AO		56.000	26	PALMER	BIG LAKE
6/01/88	RT 87	BIG LAKE	CA	8,022	BIG LAKE	LV		54.000	26	PALMER	BIG LAKE
6/01/88	RT 87	BIG LAKE	CA	8,013	BIG LAKE	RV		56.000	27	PALMER	BIG LAKE
6/01/88	RT 88	SWANSON	FI	10,000	GONDOR L	NO		0.200	48	PALMER	WASILLA
6/01/88	RT 88	SWANSON R	FI	10,000	ROBIN L	NO		0.200	48	PALMER	WASILLA
6/09/88	RT 87	BIG LAKE	CA	1,014	DERBY POND	NO		89.700	30	ANCHORAGE	ANCHORAGE
6/09/88	RT 84	BIG LAKE	BR	4	DERBY POND	NO		1,000.000	30	ANCHORAGE	FT RICHARD
6/09/88	RT 84	BIG LAKE	BR	21	DERBY POND	ND		250.000	30	ANCHORAGE	FT RICHARD
6/10/88	RT 87	BIG LAKE	CA	4,216	CHENA L	NO		89.700	31	FAIRBANKS	FAIRBANKS
6/10/88	RT 87	BIG LAKE	CA	1,800	HIDDEN L	NO		89.700	31	FAIRBANKS	FAIRBANKS
6/10/88	RT 87	BIG LAKE	CA	2,254	MOOSE L	NO		89.700	31	FAIRBANKS	FAIRBANKS
6/10/88	RT 87	BIG LAKE	CA	9,417	PILEORIVER L	NO		89.700	31	FAIRBANKS	FAIRBANKS
6/10/88	RT 87	BIG LAKE	CA	500	TVSA-OERBY	NO		94.900	31	FAIRBANKS	FAIRBANKS
6/15/88	RT 88	SWANSON	EY	124,700	CLEAR HATCH	NO		0.150	31	FAIRBANKS	CLEAR
6/27/88	RT 87	BIG LAKE	CA	2,000	LOWER FIRE L	NO		89.400	33	ANCHORAGE	EAGLE RIVE
6/27/88	RT 87	BIG LAKE	CA	3,071	PORTAGE L	NO		90.000	35	ANCHORAGE	PORTAGE
6/27/88	RT 88	BIG LAKE	FE	350,000	EKLUTNA L	NO		0.170	34	PALMER	EKLUTNA
6/27/88	RT 87	BIG LAKE	CA	5,000	MATANUSKA L	NO		89.400	33	PALMER	PALMER
6/27/88	RT 88	BIG LAKE	FE	250,000	SUMMIT L	NO		0.170	35	SOLDOTNA	PORTAGE
6/28/88	RT 87	BIG LAKE	CA	3,282	BEACH L	NO		89.400	36	ANCHORAGE	CHUGIAK
6/28/88	RT 87	BIG LAKE	CA	4,210	CHENEY L	NO		89.400	37	ANCHORAGE	ANCHORAGE
6/28/88	RT 87	BIG LAKE	CA	2,878	CHESTER CR	NO		95.500	41	ANCHORAGE	ANCHORAGE
6/28/88	RT 87	BIG LAKE	CA	2,571	CLUNIE L	NO		95.500	38	ANCHORAGE	FT RICHARD
6/28/88	RT 87	BIG LAKE	CA	3,396	JEWELL L	NO		89.400	37	ANCHORAGE	ANCHORAGE
6/28/88	RT 87	BIG LAKE	CA	5,154	MIRROR L	NO		89.400	36	ANCHORAGE	EAGLE RIVE
6/28/88	RT 87	BIG LAKE	CA	1,534	OTIS L	NO		95.500	43	ANCHORAGE	ANCHORAGE
6/28/88	RT 87	BIG LAKE	CA	3,065	OTTER L	NO		95.500	38	ANCHORAGE	FT RICHARD
6/29/88	RT 87	BIG LAKE	CA	2,570	DELONG L	NO		95.500	39	ANCHORAGE	ANCHORAGE
6/29/88	RT 87	BIG LAKE	CA	2,132	TAKU L	NO		95.500	39	ANCHORAGE	ANCHORAGE
6/29/88	RT 87	BIG LAKE	CA	1,561	TAKU L	NO		95.500	39	ANCHORAGE	ANCHORAGE
6/30/88	RT 87	BIG LAKE	CA	4,760	CAMPBELL CR	NO		95.500	41	ANCHORAGE	ANCHORAGE
7/01/88	RT 87	BIG LAKE	CA	1,563	GWEN L	NO		95.500	47	ANCHORAGE	FT RICHARD
7/14/88	RT 88	SWANSON	FI	50,013	UNIVERSITY L	NO		0.300	55	ANCHORAGE	ANCHORAGE
7/14/88	RT 88	SWANSON	FI	207,837	EKLUTNA L	NO		0.300	54	PALMER	ANCHORAGE
SUB-TOTAL				4,719,715							
6/06/88	SH 87	ANCHOR R	SM	940	GWEN L	NO		60.000	51	ANCHORAGE	FT RICHARD
6/29/88	SH 87	ANCHOR R	SM	10,342	BRIDGE CR RESERVOIR	NO		61.000	40	SOLDOTNA	HOMER
7/01/88	SH 87	ANCHOR R	SM	4,054	CHENEY L	NO		61.000	45	ANCHORAGE	ANCHORAGE
7/01/88	SH 87	ANCHOR R	SM	4,143	DELONG L	NO		61.000	45	ANCHORAGE	ANCHORAGE
7/01/88	SH 87	ANCHOR R	SM	5,842	JEWELL L	NO		61.000	44	ANCHORAGE	ANCHORAGE
7/01/88	SH 87	ANCHDR R	SM	6,000	SAND L	NO		61.000	44	ANCHORAGE	ANCHORAGE
7/06/88	SH 87	ANCHOR R	SM	2,229	GWEN L	NO		60.000	46	ANCHORAGE	FT RICHARD

Appendix (continued).

FT RICHARDSON HATCHERY STOCKING RECORDS

September 13, 198

STOCKING DATE	SP BY	BROOD STOCK	AGE	NUMBER STOCKED	STOCKING LOCATION	MARKS CWTNO	WEIGHT	TRIP #	AREA	COMMUNITY
SUB-TOTAL				33,550						
9/15/87	SS 86	EYAK LAKE	F	21,605	NORTH SURPRISE	NO	10.900	48	CORDOVA	CORDOVA
9/15/87	SS 86	EYAK LAKE	F	40,158	SOUTH SURPRISE	NO	10.900	48	CORDOVA	CORDOVA
5/26/88	SS 86	LITTLE SU	SM	41,610	NANCY L	NO	20.100	21	PALMER	HOUSTON
5/27/88	SS 86	LITTLE SU	SM	113,390	NANCY L	NO	20.100	22	PALMER	HOUSTON
5/29/88	SS 86	LITTLE SU	SM	158,607	NANCY L	NO	18.400	23	PALMER	HOUSTON
5/31/88	SS 86	LITTLE SU	SM	24,628	NANCY L	AD CW 311761	18.400	25	PALMER	HOUSTON
5/31/88	SS 86	LITTLE SU	SM	97,226	NANCY L	NO	18.400	25	PALMER	HOUSTON
6/01/88	SS 86	EYAK L	SM	62,000	FLEMMING SPIT	NO	22.000	27	ANCHORAGE	CORDOVA
6/03/88	SS 86	LITTLE SU	SM	7,642	NANCY L	NO	20.100	28	PALMER	HOUSTON
6/03/88	SS 86	LITTLE SU	SM	2,913	NANCY L	NO	20.100	28	PALMER	HOUSTON
6/07/88	SS 87	LITTLE SU	FI	8,980	BEAR PAW L	NO	3.700	29	PALMER	PALMER
6/07/88	SS 87	LITTLE SU	FI	4,600	ECHO L	NO	3.700	29	PALMER	PALMER
6/07/88	SS 87	LITTLE SU	FI	2,180	JUNCTION L	NO	3.700	29	PALMER	PALMER
6/07/88	SS 87	LITTLE SU	FI	21,575	LOON L	NO	3.700	29	PALMER	PALMER
6/22/88	SS 87	CASWELL CR	FI	9,000	CASWELL CR	NO	2.700	32	PALMER	WILLOW
6/22/88	SS 87	LITTLE SU	FI	170,000	NANCY L	NO	2.500	32	PALMER	WILLOW
6/22/88	SS 87	LITTLE SU	FI	2,000	NANCY L	NO	4.000	32	PALMER	WILLOW
SUB-TOTAL				788,114						
GRAND TOTAL				6,440,032			41,884.542 kg			

