

REF 90476

State of California
The Resources Agency
DEPARTMENT OF FISH AND GAME

COOPERATIVE ARTIFICIAL PROPAGATION PROGRAMS
FOR SALMON AND STEELHEAD, 1994-1995

by

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Inland Fisheries
Administrative Report No. 96-2

1996

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ABSTRACT

Fifteen cooperative fish rearing and planting programs for salmon and steelhead were active from July 1, 1994 through June 30, 1995. For all programs, 252,324 steelhead trout, (Oncorhynchus mykiss), 5,318,296 chinook salmon, (O. tshawytscha), and 10,377 coho salmon (O. kisutch) were planted.

1/ Inland Fisheries Administrative Report No. 96-2. Submitted for publication June 1996. Edited by M. Ralph Carpenter, California Department of Fish and Game, 1416 Ninth Street, Sacramento, California 95814

INTRODUCTION

The cooperative fish rearing and planting program was started in 1973 in an attempt to restore declining chinook salmon, coho salmon, and steelhead trout populations. The term "cooperative" program designates programs that are operated by nonprofit organizations, corporations, counties, and individuals in cooperation with the State of California, Department of Fish and Game (Department). This report describes the activities of 15 cooperative programs from July 1, 1994 through June 30, 1995. State funding and other funding received by the cooperative programs are reported in Appendix 1. State funding was provided by the Cigarette and Tobacco Products Surtax Fund, Public Resources Account (Proposition 99), and the Commercial Salmon Trollers Enhancement and Restoration Program (Salmon Stamp). Programs in the process of receiving or planting fish past June 30, 1995 were included in this report to complete the data for the season.

CENTRAL COAST SALMON ENHANCEMENT, INCORPORATED

Central Coast Salmon Enhancement, Incorporated is a nonprofit organization primarily staffed by volunteers. Their goal is to enhance the salmon fishery of central California through the introduction of hatchery-reared fish. This program began operating in 1984.

Seventy-one thousand four-hundred chinook salmon smolts were obtained from Feather River Hatchery (Appendix 3). These fish were coded-wire tagged (CWT) with code 06-29-31. The fish were acclimated to saltwater and were reared for three months in floating net pens anchored in Port San Luis Harbor. A minor bacterial infection was treated with medicated feed. The fish recovered quickly with a loss 1,800 fish. A loss of 4,500 fish one day prior to the release date resulted from oxygen depletion caused by massive schools of anchovies in the Harbor. Sixty-four thousand nine hundred seventy-three salmon were released directly into the Harbor (Appendix 2).

FISHERY FOUNDATION OF CALIFORNIA

The Fishery Foundation of California is comprised of citizens whose goals are to increase the survival of chinook salmon planted from Department hatcheries into San Pablo Bay and Carquinez Straits, near Crockett, CA. This effort does not involve rearing fish. Chinook salmon smolts and yearlings from Feather River and Nimbus hatcheries are received and placed

directly into mobile floating net-pens. The net-pens are towed from two to six hours into San Pablo Bay, affording salmon protection from predators while they are acclimating to saltwater and recovering from the truck transport. After acclimation, the salmon are released directly into San Pablo Bay. This planting procedure for chinook salmon began in 1993.

An experiment was designed to test the difference in survival of salmon using the planting procedure where fish were trucked and planted directly into the water and the planting procedure using net-pens. The experiment involved two groups of tagged chinook salmon. One group of 152,545 salmon tagged with CWT code 06-29-32 was planted directly into San Pablo Bay near Crockett, CA. Another group of 153,002 salmon tagged with CWT code 06-29-33 was placed into the mobile net-pens at the same location. The net pens were towed, on an outgoing tide, for two to six hours into the San Pablo Bay and released one-half mile south of Buoy Number 14. CWT recoveries from ocean fisheries, in-river fisheries, and hatcheries will allow estimation of relative survival.

In addition to this experiment, 25 additional plants were made using the net-pen procedure. These plants involved 4,267,725 chinook salmon starting 15 June 1995 and ending 20 July 1995 (Appendix 2).

GUALALA RIVER STEELHEAD PROJECT

Gualala River Steelhead Project is a nonprofit program primarily staffed by volunteers. Fish are reared in two doughboy-type pools located on Doty Creek, a tributary to Gualala River. The program has operated since 1981.

On 8 July 1995, 4,000 steelhead were rescued from Dry Creek, Robinson Creek, and Maganns Creek, tributaries of the North Fork Gualala River. These fish ranged in size from 15 to 30 fish-per-pound. The juvenile steelhead were reared until 5 January 1995 when 3,500 fish were planted in Doty Creek (Appendix 2).

HUMBOLDT FISH ACTION COUNCIL

Humboldt Fish Action Council is a local group of citizens concerned over the declining salmon populations in the Humboldt Bay area. The group organized in 1969 with the hope of restoring the runs of coho and chinook salmon in local streams and tributaries that flowed into Humboldt Bay. The main trapping and spawning facility is on Freshwater Creek, northeast of Eureka, CA. This facility includes a weir, a trap, two tomato-tub holding tanks, a spawning and storage shed, and a trailer to house personnel. The rearing facility is located 2.4 km (1.5 mi) upstream from the trapping facility, in McCready Gulch. The

rearing facility has two vertical stack incubators, four rearing troughs, and one fiberglass circular rearing pool.

Thirty-seven chinook salmon were trapped. Sixteen fish were released, and 50,488 eggs were taken from 12 females. One hundred ninety-nine coho salmon were trapped. All coho were released, and no eggs were taken. Thirty-seven steelhead were trapped. All steelhead were released, and no eggs were taken (Appendix 4).

The chinook salmon were raised to fingerling size and released into Freshwater and Cloney creeks during May and June, 1995 (Appendix 2). All released fingerlings were marked by partial removal of the right maxilla. Lots of chinook salmon numbering 50, 30, and 40 each, were transferred to Freshwater, Lafayette, and Jacoby Creek schools, respectively for classroom study.

LOUISIANA PACIFIC CORPORATION

The Louisiana Pacific Corporation rearing facility was dedicated this past season as the Daniel L. Harpe Fish Rearing Facility. The facility is totally funded and operated by the Louisiana Pacific Corporation. The facility is located on the Russian River near Ukiah, CA, and consists of three doughboy-type pools. Louisiana Pacific Corporation operated the facility since 1991.

This facility received 25,007 steelhead from Warm Springs Hatchery (Appendix 3). Twenty-one thousand nine hundred forty-seven fish were released into the Russian River the following spring on 16 February and 24 March 1995 (Appendix 2). All fish were marked by partial removal of the right maxilla.

MATTOLE WATERSHED SALMON SUPPORT GROUP

Mattole Watershed Salmon Support Group is a nonprofit group comprised of local citizens whose goal is to restore declining chinook and coho salmon populations within the Mattole River watershed. The Group traps fish from the mainstem Mattole River at Eddisburg, CA. Eggs are transported to six small rearing facilities at various locations throughout the watershed. The group has been in operation since 1980.

The Mattole Group was unable to trap fish this past season because they were not issued a collecting permit. The California Fish and Game Commission requires a five-year plan for all rearing facilities before the Department can issue a permit.

Chinook and coho salmon smolts, reared from the prior year, were released into West Fork Bridge Creek, South Fork Bear Creek, and McKee Creek all tributaries of the Mattole River. All chinook

salmon were marked by removing the right maxilla. Coho salmon were released unmarked (Appendix 2).

MONTEREY BAY SALMON AND TROUT PROJECT

Monterey Bay Salmon and Trout Project is a nonprofit organization primarily staffed by volunteers. This project traps, spawns, incubates, and rears steelhead trout and coho salmon. The primary incubation and rearing facility is located at Kingfisher Flat, on Big Creek near Davenport, CA. The eggs are incubated in vertical stack incubators, fry are reared in troughs until reaching 100 fish-per-pound, and then the fingerlings are transferred to an earthen pond. This year, project personnel reared fish at two remote sites. One site is a pond on private property near Salinas, CA where steelhead were reared in floating cages. The other site is located on Powdermill Creek, tributary to the San Lorenzo River, where fish were reared in a doughboy-type pool. The project also receives chinook salmon fingerlings from Feather River Hatchery, rears them in floating net-pens in Monterey Bay and releases them into the Bay. This project has been propagating fish since 1976.

Ninety-two coho salmon were trapped in Scotts Creek. Seventy-seven fish were released after 14,034 eggs were taken from 6 females. Twenty-three coho salmon were trapped in the San Lorenzo River. Eighteen fish were released after 4,682 eggs were taken from 2 female salmon (Appendix 4). No coho salmon were planted this year since none were trapped last year; coho salmon are planted as yearlings.

Thirty-five steelhead were trapped in Scotts Creek. All were released after 25,037 eggs were taken from 5 females. Two hundred eighty-eight steelhead were trapped in the San Lorenzo River. Two hundred eighty-six fish were released after 70,884 eggs were taken from 14 females (Appendix 4).

An outbreak of coldwater disease caused a 25% loss of steelhead fry. All steelhead planted were marked with an adipose fin-clip. Five thousand fish were transferred to Powder Mill Creek pond and 15,199 were transferred to Salacci Pond for rearing. Sixty-seven thousand eight hundred eight steelhead were planted as yearlings in several streams and rivers in the area. Three thousand four hundred ninety-eight steelhead were supplied to disabled children's camps and local ponds for children to enjoy (Appendix 2).

The Monterey Bay Salmon and Trout Project also received five groups of chinook salmon from the Feather River Hatchery (Appendix 3). These fish were reared in floating ocean net-pens in Monterey Bay at Moss Landing Harbor and Breakwater Cove. All fish were CWTed and used in an experiment to estimate the

contribution to sport and commercial fisheries. Three of the groups each consisting of 23,452 fish, 21,191 fish, and 8,668 fish were tagged with code 06-29-26. These fish were reared and released at Moss Landing Harbor (Appendix 2).

In addition, an experiment was designed to test the difference in rearing and release location on contribution to fisheries. The 48,471 fish reared at Moss Landing Harbor were given code 06-29-29. The 52,540 fish reared at Breakwater Cove were given code 06-29-30. The fish were acclimated to saltwater, fed for several days, and then released at Moss Landing Harbor and Breakwater Cove (Monterey Harbor) (Appendix 2).

PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS (EEL RIVER PROJECT)

Pacific Coast Federation of Fishermen's Associations Eel River Project is a nonprofit organization. The group is comprised of commercial fishermen and concerned individuals with a goal to help restore the declining populations of salmon in the South Fork Eel River. The project operates a trap on Redwood Creek near Redway, CA. Rearing ponds are located on Marshall Creek approximately 1.6 km (1 mi) upstream of the trap site. This program has operated since 1984.

Few fish were trapped this year. Low flows in the mainstem Eel River and the South Fork Eel River prevented salmon from moving upstream to the trap site. Thirty-six chinook salmon were trapped. Five fish were released after 11,825 eggs were taken from three females. Five coho salmon were trapped. One fish was released after 2,838 eggs were taken from one female salmon. Eight steelhead were trapped. All fish were released without being spawned (Appendix 4).

Ten thousand three hundred-sixty chinook salmon and 1,858 coho salmon were planted in May and June of 1995 (Appendix 2). All salmon received a right ventral fin-clip.

PACIFIC LUMBER COMPANY

Pacific Lumber Company operates a trapping and rearing facility and three satellite rearing and imprinting facilities that are entirely funded and staffed by the Pacific Lumber Company. Chinook salmon and steelhead trout are reared for the Van Duzen watershed. These facilities have been in operation since 1976.

The Yager Creek trapping and rearing facility is located near the confluence of Cooper Mill Creek and Yager Creek, both tributaries to the Van Duzen River. This facility has a concrete raceway-type rearing pond, rearing troughs, a weir, and a fish

ladder.

Two satellite rearing and imprinting facilities consisting of fiberglass circular tanks are located on the South Fork Yager Creek and Corner Creek, both tributaries to Yager Creek. The third satellite facility is located at Scotia, CA, just west of Highway 101 and consists of a concrete Burroughs-type pond which uses a recirculating water supply. Steelhead trout are reared at this facility primarily during the height of the tourist season as an attraction for visitors touring the lumber mill. These fish are returned to the Yager Creek rearing facility for imprinting prior to release.

One hundred twenty-five chinook salmon were trapped. One hundred eleven fish were released after 65,537 eggs were taken from 14 females. Twenty-eight steelhead were trapped. Twenty-seven fish were released after 8,427 eggs were taken from 3 females. No coho salmon were trapped.

All chinook salmon and steelhead were marked with a left ventral fin-clip. Forty-seven thousand nine hundred chinook salmon were released into South Fork Yager, Lawrence, and Cooper Mill creeks. Six thousand five hundred steelhead were released into South Fork Yager and Lawrence creeks (Appendix 2).

ROWDY CREEK FISH HATCHERY

Rowdy Creek Fish Hatchery was built and is operated by the Kiwanis Club of Smith River, a nonprofit organization. This facility rears salmon and steelhead trout to enhance sport and commercial fisheries in the Smith River and nearby ocean waters. This facility has been in continuous operation since 1968.

The hatchery is located near Highway 101 at the confluence of Rowdy and Dominie creeks, tributaries to the Smith River. The facility has a Burroughs-type concrete ponds, concrete troughs, newly acquired circular metal tanks, and circular fiberglass fingerling tanks. Eggs are incubated in vertical flow incubators and hatch jars.

Five hundred ninety-seven chinook salmon were trapped. Two hundred seventy-two fish were released after 550,000 eggs were taken from 154 females. Twenty-eight coho salmon were trapped. One fish was released after 17,000 eggs were taken from seven females. Two hundred seventy-one steelhead were trapped. Two hundred three fish were released after 108,000 eggs were taken from 31 females (Appendix 4). Five coastal cutthroat trout and one chum salmon were trapped and released.

Three hundred seventy-five eggs were provided to classroom incubators. Of the 373,608 chinook salmon released into Rowdy

Creek, 56,062 were marked by partial removal of the left maxilla. All steelhead were marked with an adipose fin-clip and released at various locations in the Smith River drainage (Appendix 2). No adult coho were spawned in 1994, so yearlings were not available for release in 1995.

**SALMON RESTORATION ASSOCIATION OF CALIFORNIA
(Hollow Tree Creek)**

The Salmon Restoration Association of California is a nonprofit organization, comprised of commercial fishermen and concerned citizens. Chinook salmon are trapped, spawned, reared, and released into the Hollow Tree Creek system, a tributary to the South Fork Eel River. Fish have been propagated at this facility since 1979.

The Hollow Tree Creek facility is located 3.2 km (2 mi) southeast of Hales Grove, CA. After chinook salmon were spawned, the eggs were water-hardened and transported to Ten Mile River Hatchery where young were reared to 90 fish-per-pound. The juveniles are then transported back to Hollow Tree Creek and planted.

One hundred fourteen chinook salmon were trapped. One hundred eleven fish were released after 4,200 eggs were taken from three females. Four hundred eighty-two coho salmon were trapped. Four hundred twenty-eight fish were released, but no eggs were taken. Seven steelhead were trapped and released, but no eggs were taken (Appendix 4).

Three thousand nine hundred water-hardened chinook eggs were transferred to Ten Mile River Hatchery. One thousand sixty-three chinook salmon smolts were planted in Hollow Tree Creek (Appendix 2).

**SALMON RESTORATION ASSOCIATION OF CALIFORNIA
(Ten Mile River)**

The Salmon Restoration Association of California is a nonprofit organization, comprised of commercial fishermen and concerned citizens. Ten Mile River Hatchery is located 9.6 km (6 mi) north of Fort Bragg, CA. Adult coho salmon are trapped, while adult steelhead are taken by hook-and-line. Chinook salmon eggs from Hollow Tree Creek are hatched and reared and then returned to Hollow Tree Creek for planting. Fish have been propagated at this facility since 1975.

Forty-five coho salmon were trapped. Thirty-four fish were released after 23,000 eggs were taken from 11 females. Forty-one steelhead were caught. Forty-one fish were released after 4,000 eggs were taken from 2 females (Appendix 4).

Bacterial kidney disease was discovered in the coho fingerlings from the 1995 brood year. To prevent the disease from spreading throughout the watershed, all coho salmon of the this brood year were destroyed at the facility. These fish did not contaminate other fish reared at the facility. All other lots were tested by a Department pathologist and determined to be disease free.

Three thousand nine hundred chinook salmon eggs were transferred from Hollow Tree Creek and were reared at Ten Mile River Hatchery. One thousand sixty-three chinook salmon fingerlings were returned to Hollow Tree Creek for planting.

From brood year 1994, 5,389 coho salmon and 14,850 steelhead were planted as yearlings in Ten Mile River (Appendix 2).

TYEE CLUB OF SAN FRANCISCO

The Tyee Club of San Francisco is a nonprofit angling club. Their facility is located at the Center for Environmental and Ecological Studies, on San Francisco Bay, near Tiburon, CA. The facility pen-rears chinook salmon in saltwater, and has been rearing fish since 1982.

Forty-seven thousand six hundred chinook salmon from Feather River Hatchery (Appendix 3), and 6,800 photonic-tagged chinook salmon from Casa Grande High School were transferred to the floating saltwater pens in San Francisco Bay. An outbreak of Vibriosis sp. occurred and delayed release of the fish. Fifty-two thousand two hundred chinook salmon were released into San Francisco Bay (Appendix 2).

UNITED ANGLERS (Casa Grande High School)

The United Anglers program at Casa Grande High School is made up of 24 students, a teacher, and numerous parents and volunteers. A state-of-the-art hatchery was built on the school grounds and provides aquaculture education for the students. The hatchery operates on a recirculating water system. Well water is pumped and treated through an ozone system. Four raceways, two troughs, and four half-stack vertical incubators comprise the rearing facilities. The new hatchery is located in Petaluma, CA and began operating in 1993.

In 1995 students trapped 34 chinook salmon and 5 steelhead trout from the nearby Petaluma River system. Thirteen chinook were released after 19,500 eggs were taken from 16 females. Five steelhead were trapped. Five fish were released after 1,200 were taken from two females (Appendix 4).

Six thousand eight hundred salmon were tagged with photonic tags and transferred to the Tyee Club of San Francisco. The remaining 1,200 chinook salmon along with 100 steelhead were transferred to the Bodega Bay Marine Laboratory. The remaining steelhead were planted in Adobe Creek, tributary to the Petaluma River (Appendix 2).

WHALE ROCK RESERVOIR PROJECT

Whale Rock Reservoir was created in the 1950's as a domestic water source and is located near Cayucos, CA. Steelhead were trapped above the dam when the waters were impounded are thought represent a unique genetic stain of steelhead. The Whale Rock Commission agreed to trap and rear these steelhead to preserve the strain. The hatchery building consists of two vertical incubator stacks with water supplied from the Reservoir. The rearing facility, located in the maintenance garage at the base of the dam, is owed by the City of San Luis Obispo, CA. The facility has 10 to 18 .91-m (3-ft) diameter circular pools, and 1 3.66-m (12-ft) diameter doughboy-type pool. The facility has been operated since 1992.

Thirty-five steelhead were trapped in the Reservoir using a Merwyn trap (Appendix 4). Thirty-five fish were released after 32,041 eggs were taken from 4 females.

An outbreak of Columnaris sp. resulted in a loss of 20,000 fingerlings. The steelhead were reared to the size of 40 fish-per-pound and marked with an adipose fin-clip. Eleven thousand seven hundred sixty-three fish were planted into Whale Rock Reservoir. Two hundred steelhead were planted into nearby Righetti Lake as an added "pool" for the genotype (Appendix 2).

SUMMARY

Six of the 15 projects spawned 202 female chinook salmon producing 701,550 eggs. Three of the programs received 298,908 chinook salmon from Feather River Hatchery for rearing. Nine programs reared and released 745,024 chinook salmon into State waters. In a project by the Fishery Foundation of California involving the acclimation of chinook salmon, using net-pens, 4,573,272 chinook salmon were planted into San Pablo Bay.

Five projects spawned 24 female coho salmon producing 39,278 eggs. Three projects released 10,377 coho salmon into State waters.

Eight projects spawned 61 female steelhead producing 249,589 eggs. Eight projects released 252,324 steelhead into State waters.

APPENDIX 1. Partial Funding for Salmon and Steelhead Cooperative Artificial Propagation Programs the 1994-95 Fiscal Year.

Program	Funding sources						County fines
	Salmon Stamp	Fund raisers	Prop. 99	Membership	Grants	Merchandise	
Central Coast Salmon Enhancement	\$25,000	\$13,450		\$16,791	\$31,017	\$5,597	
Fishery Foundation of California	\$101,297						
Gualala River Steelhead Project							
Humboldt Fish Action Council	\$22,499						
Louisiana Pacific Corporation							
Mattole Watershed Salmon Support Group	\$15,000						
Monterey Bay Salmon and Trout Project	\$6,000	\$10,392	\$52,000				\$29,612
Pacific Coast Federation of Fishermen's Associations(Eel River Project)	\$17,500						
Pacific Lumber Company							
Rowdy Creek Fish Hatchery	\$30,000	\$50,000					
Salmon Restoration Association of California (Hollow Tree Creek)	\$10,000	\$20,000					
Salmon Restoration Association of California (Ten Mile River)	\$20,956	\$20,000					
Tyee Club of San Francisco							
United Anglers (Casa Grande High School)							
Whale Rock Reservoir Project							
Totals	\$248,252	\$113,842	\$52,000	\$16,791	\$31,017	\$5,597	\$29,612

APPENDIX 2. Chinook Salmon, Steelhead, and Coho Salmon Planted During the 1994-1995 Season by Cooperative Artificial Propagation Programs.

Program	Source	Planting information				
		Number planted	Size (no./lb)	Date	Location	Mark/tag no.
Chinook Salmon						
Central Coast Salmon Enhancement, Inc.	Feather River Hatchery	28,000	13.0	07-25-95	San Luis Harbor	06-29-31
		36,973	7.0	09-05-95	San Luis Harbor	06-29-31
Fishery Foundation of California	Feather River Hatchery	220,000	50.0	06-15-95	San Pablo Bay	06-29-33 06-29-32
		153,002	78.0	06-16-95	San Pablo Bay	
		152,545	85.0	06-16-95	San Pablo Bay	
	Nimbus Hatchery	129,800	59.0	06-21-95	San Pablo Bay	
	Feather River Hatchery	213,900	46.5	06-21-95	San Pablo Bay	
		189,000	54.0	06-22-95	San Pablo Bay	
	Nimbus Hatchery	110,400	48.0	06-23-95	San Pablo Bay	
	Feather River Hatchery	207,000	46.0	06-23-95	San Pablo Bay	
	Nimbus Hatchery	186,800	41.5	06-26-95	San Pablo Bay	
	Feather River Hatchery	225,600	42.0	06-28-95	San Pablo Bay	
		103,500	45.0	06-29-95	San Pablo Bay	
		211,700	45.0	06-30-95	San Pablo Bay	
		213,500	35.0	07-05-95	San Pablo Bay	
		207,000	45.0	07-06-95	San Pablo Bay	
		303,600	44.0	07-07-95	San Pablo Bay	
		202,500	45.0	07-10-95	San Pablo Bay	
	Nimbus Hatchery	196,500	46.6	07-10-95	San Pablo Bay	
	Feather River Hatchery	172,975	37.0	07-11-95	San Pablo Bay	
		179,400	39.0	07-12-95	San Pablo Bay	
		77,700	37.0	07-13-95	San Pablo Bay	
	Nimbus Hatchery	107,800	49.0	07-14-95	San Pablo Bay	
	Feather River Hatchery	94,600	43.0	07-14-95	San Pablo Bay	
	Nimbus Hatchery	226,200	51.5	07-18-95	San Pablo Bay	
	Feather River Hatchery	94,300	41.0	07-18-95	San Pablo Bay	
	Nimbus Hatchery	226,200	51.5	07-19-95	San Pablo Bay	
	Feather River Hatchery	57,350	37.0	07-19-95	San Pablo Bay	
		110,400	48.0	07-20-95	San Pablo Bay	

(Continued)

APPENDIX 2. Continued.

Program	Source	Planting Information				
		Number planted	Size (no./lb)	Date	Location	Mark/tag no.
Humboldt Fish Action Council	Freshwater Creek	19,865	200.0	05-15-95	Freshwater Creek	R. maxilla
		8,917	149.0	06-08-95	Freshwater&Cloney crks.	R. maxilla
		5,791	132.0	06-25-95	Freshwater&Cloney crks.	R. maxilla
Mattole Watershed Salmon Support Group	Mattole River	6,025	16.0	12-14-94	South Fork Bear Creek	R. maxilla
Monterey Bay Salmon and Trout Project	Feather River Hatchery	23,452	34.0	07-03-94	Moss Landing Harbor	06-29-26
		21,191	37.0	07-17-94	Moss Landing Harbor	06-29-26
		8,668	39.0	08-02-94	Moss Landing Harbor	06-29-26
		48,471	58.0	06-21-95	Moss Landing Harbor	06-29-29
		52,540	56.0	06-22-95	Breakwater Cove	06-29-30
Pacific Coast Federation of Fishermen's Associations (Eel River Project)	Redwood Creek	10,360	228.0	05-31-95	Redwood Creek	R. ventral
Pacific Lumber Company	Yager Creek	1,400	8.0	11-06-94	South Fork Yager Creek	L. ventral
		1,500	8.0	11-10-94	Lawrence Creek	L. ventral
		15,000	110.0	05-26-95	Lawrence Creek	L. ventral
		15,000	110.0	05-16-95	South Fork Yager Creek	L. ventral
		10,000	110.0	05-26-95	North Fork Yager Creek	L. ventral
		5,000	110.0	05-26-95	Cooper Mill Creek	L. ventral
Rowdy Creek Fish Hatchery	Rowdy Creek	78,446	13.6	11-04-94	Rowdy Creek	L. maxilla
		56,062	63.0	06-05-95	Rowdy Creek	L. maxilla
		175,740	116.0	06-05-95	Rowdy Creek	L. maxilla
		63,360	132.0	06-05-95	Rowdy Creek	L. maxilla
Salmon Restoration Association of California	Hollow Tree Creek	1,063	90.0	05-24-95	Hollow Tree Creek	
Tyee Club of San Francisco	Feather River & Petaluma River	52,200	3.3	10-29-95	San Francisco Bay	
Total Chinook:		5,318,296				

APPENDIX 2. Continued.

		Planting information				
Program	Source	Number planted	Size (no./lb)	Date	Location	Mark/tag no.
Steelhead						
Gualala River Steelhead Project	North Fork Gualala River	3,500	4.0	01-05-95	Doty Creek	
Louisiana Pacific Corporation	Russian River	5,775	3.5	02-16-95	Russian River	R. maxilla
		16,172	2.6	03-24-95	Russian River	R. maxilla
Monterey Bay Salmon and Trout Project	San Lorenzo River	11,340	10.8	03-06-95	San Lorenzo River	
		6,175	6.5	03-07-95	Salinas River	
		6,175	6.5	03-07-95	Pajaro River	
		2,112	6.5	03-07-95	San Lorenzo River	
	Scotts Creek	2,137	9.5	03-08-95	Scotts Creek	
		9,025	9.5	03-08-95	Soquel Creek	
		4,987	9.5	03-08-95	Corralitos Creek	
		2,850	9.5	03-08-95	Branciforte Creek	
	San Lorenzo River	12,420	10.8	03-09-95	San Lorenzo River	
		6,480	10.8	03-14-95	San Lorenzo River	
	Scotts Creek	1,045	9.5	03-14-95	Arana Creek	
		2,042	9.5	03-14-95	San Vincente Creek	
	San Lorenzo River	1,038	8.3	03-17-95	Branciforte Creek	
		510	5.1	06-15-95	Camp Evers	
		765	5.1	06-20-95	Camp Campbell	
		1,275	5.1	06-20-95	Camp Harmon	
		510	5.1	06-20-95	Camp Evers	
		438	5.1	06-29-95	Camp Evers	
	Pacific Lumber Company	Yager Creek	5,000	4.0	03-09-95	Lawrence Creek
1,500			4.0	03-15-95	South Fork Yager Creek	L. ventral
Rowdy Creek Fish Hatchery	Rowdy Creek	119,600	6.5	03-10-95	Slant Bridge	Adipose
		195	6.5	03-30-95	Morrison Creek	Adipose
		780	6.5	03-30-95	Smith River	Adipose
		1,105	6.5	03-30-95	Rowdy Creek	Adipose
Salmon Restoration Association of California	Ten Mile River	14,850	10.0	03-29-95	Ten Mile River	

(Continued)

APPENDIX 2. Continued.

		Planting information				
Program	Source	Number planted	Size (no./lb)	Date	Location	Mark/tag no.
United Anglers, (Casa Grande High School)	Adobe Creek	560	120.0	06-07-95	Adobe Creek	
Whale Rock Reservoir Project	Whale Rock Reservoir	11,763	40.0	11-03-94	Whale Rock Reservoir	Adipose
		200	40.0	11-02-94	Righetti Lake	Adipose
Total Steelhead:		252,324				
Coho						
Mattole Watershed Salmon Support Group	Mattole River	900	110.0	07-12-94	West Fork Bridge Creek	
		730	110.0	07-12-94	South Fork Bear Creek	
		800	110.0	07-17-94	McKee Creek	
		700	110.0	07-17-94	West Fork Bridge Creek	
Pacific Coast Federation of Fishermen's Associations (Eel River Project)	Redwood Creek	200	256.0	06-03-95	Leggett Creek	R. ventral
		180	256.0	06-09-95	Leggett Creek	R. ventral
		1,478	140.0	06-23-95	Redwood Creek	R. ventral
Salmon Restoration Association of California	Ten Mile River	5,389	11.0	03-29-95	Ten Mile River	
Total Coho:		10,377				

APPENDIX 3. Cooperative Artificial Propagation Programs which Received Fish for Rearing during the 1994-95 Season.

Program	Source of fish	Receiving information			Rearing location
		Number	Size (no./lb)	Date	
Chinook Salmon					
Central Coast Salmon Enhancement	Feather River Hatchery	71,400	70.0	06-03-95	San Luis Harbor
Monterey Bay Salmon and Trout Project	Feather River Hatchery	23,452	48.0	06-18-94	Moss Landing Harbor
		24,610	42.8	07-07-94	Moss Landing Harbor
		9,750	39.0	07-28-94	Moss Landing Harbor
		60,819	60.0	06-06-95	Moss Landing Harbor
		61,277	60.0	06-14-95	Breakwater Cove
Tyee Club of San Francisco	Feather River Hatchery	47,600	34.0	06-08-94	San Francisco Bay
Total Chinook:		298,908			
Steelhead					
Louisiana Pacific Corporation	Warm Springs Hatchery	25,007	17.0	09-07-94	Harpe Rearing Facility
Total Steelhead:		25,007			

APPENDIX 4. Chinook Salmon, Steelhead, and Coho Salmon Trapped and Spawned by Cooperative Artificial Propagation Programs During the 1994-95 Season.

Program	Source of fish	Fish trapped			Fish spawned		Fish released alive	Eggs taken
		Male	Female	Grilse	Male	Female		
Chinook Salmon								
Humboldt Fish Action Council	Freshwater Creek	17	14	6	19	12	16	50,488
Pacific Coast Federation of Fishermen's Associations (Eel River Project)	Redwood Creek	11	3	22	6	3	5	11,825
Pacific Lumber Company	Yager Creek	46	14	65	30	14	111	65,537
Rowdy Creek Fish Hatchery	Rowdy Creek	300	191	106	98	154	272	550,000
Salmon Restoration Association of California	Hollow Tree Creek	71	7	36	6	3	111	4,200
United Anglers, (Casa Grande High School)	Petaluma River	13	21	0	13	16	13	19,500
Total Chinook:		458	250	235	172	202	528	701,550
Steelhead								
Humboldt Fish Action Council	Freshwater Creek	17	20	0	0	0	37	0
Monterey Bay Salmon and Trout Project	Scotts Creek	19	16	0	6	5	35	25,037
	San Lorenzo River	158	130	0	16	14	286	70,884
Pacific Coast Federation of Fishermen's Associations (Eel River Project)	Redwood Creek	6	2	0	0	0	8	0
Pacific Lumber Company	Yager Creek	25	3	0	10	3	27	8,427
Rowdy Creek Fish Hatchery	Rowdy Creek	144	127	0	37	31	203	108,000
Salmon Restoration Association of California	Hollow Tree Creek	4	3	0	0	0	7	0
	Ten Mile River	16	25	0	3	2	41	4,000
United Anglers, (Casa Grande High School)	Adobe Creek	3	2	0	3	2	5	1,200
Whale Rock Reservoir Project	Whale Rock Reservoir	22	13	0	7	4	35	32,041
Total Steelhead:		414	341	0	82	61	684	249,589

(Continued)

APPENDIX 4. Continued.

Program	Source of fish	Fish trapped			Fish spawned		Fish released alive	Eggs taken
		Male	Female	Grise	Male	Female		
Coho								
Humboldt Fish Action Council	Freshwater Creek	69	63	67	0	0	199	0
Monterey Bay Salmon and Trout Project	Scotts Creek	79	13	0	9	6	77	14,034
	San Lorenzo River	17	6	0	3	2	18	4,682
Pacific Coast Federation of Fishermen's Associations (Eel River Project)	Redwood Creek	2	1	2	2	1	1	2,838
Rowdy Creek	Rowdy Creek	5	7	8	4	7	1	17,000
Salmon Restoration Association of California	Hollow Tree Creek	237	245	0	0	0	428	0
	Ten Mile River	24	21	0	13	11	34	23,000
Total Coho:		409	744	412	95	34	740	39,278