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Program

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INTRODUCTION

The Salmonid Enhancement and Restoration Program is designed to enhance and restore self-sustaining populations of salmon and trout by undertaking habitat improvement projects and supplemental fish stocking programs. Work is conducted by Oregon Department of Fish and Wildlife (ODFW) personnel and by trained volunteers. A major component of the program is training citizens to undertake projects such as stream surveys, habitat enhancement and fish rearing through the Salmon and Trout Enhancement Program, commonly referred to as STEP. STEP is a program whereby citizens volunteer their labor to enhance the fishery resources of the state.

The department's management programs call, in part, for the collection of physical and biological stream survey information, habitat enhancement work, and fully seeding fish rearing areas. Funding through this contract has allowed us to increase our efforts in these areas.

Job 1. Program development of the Salmon and Trout Enhancement Program.

Objectives:

1. Meet with Salmon and Trout Enhancement Advisory Committee bimonthly to review STEP activities for consistency with ODFW management programs.
2. Make presentations on STEP to citizen groups, schools, and local and state governments. Distribute informational brochures explaining the STEP program.
3. Develop training brochures on how to do various types of stream surveys and how to incubate eggs in a streamside incubator.
4. Conduct an annual STEP Volunteer Conference to bring together STEP participants to exchange information and ideas on STEP projects.
5. Publish a STEP Volunteer Newsletter on a quarterly basis informing the public of STEP activities.

Accomplishments:

The objective was to increase public participation in, and develop guidelines for, the Salmon and Trout Enhancement Program (STEP). The objective was accomplished by meetings of the STEP Advisory Committee; presentations to sport groups, schools, and government entities; developing instructional brochures; and the distribution of a STEP Volunteer Newsletter.

Objective 1. Six meetings of the STEP Advisory Committee were held and attended.

The 12 member STEP Advisory Committee, appointed by the Governor, reviews department policies and programs affecting STEP. Meetings were held at various locations within the state to allow volunteer groups to discuss their work with the Committee.

Major areas of concern addressed by the Committee were: review of STEP Guidelines; STEP budget, increased school participation in STEP, project record keeping, and STEP rearing programs.

The Committee completed the review of the STEP guidelines and recommended changes to the Fish and Wildlife Commission. The Commission subsequently adopted the changes as ODFW policy and Administrative Rules.

Objective 2. STEP biologists made 120 presentations to citizen groups, schools, and other governmental agencies. STEP displays were presented at local sports shows and county fairs. Over 3,000 brochures on STEP were distributed.

Objective 3. The first draft of a new brochure for volunteers conducting fish propagation projects was developed. Four existing brochures were updated and reprinted.

A new version of the STEP slide show was completed and distributed to the STEP biologist's.

STEP continued to assist the department's Office of Public Affairs in developing an educational activity guide for secondary teachers and youth leaders. The Stream Scene - Watersheds, Wildlife and People is now being tested by over 50 teachers. Two teacher workshops were held to review the document and provide "hands on" training for fifty teachers. Emphasis of the guide is to incorporate STEP into classroom activities.

Objective 4. The 1988 STEP Volunteer Conference was held in Tillamook, Oregon on March 12-13, 1988. Over 350 volunteers attended. The program included sessions on trout restoration, aquatic education, marine mammals, international fisheries, and Oregon legislative issues. "Round table" discussions were also held to allow participants to discuss issues on an individual or small group basis. Jim Eriser was selected as "STEP Volunteer of the Year" for his work on the Deschutes River. Volunteers from California, Washington, and British Columbia also attended to learn more about Oregon's program.

Objective 5. Four issues of the STEP Volunteer were published. The newsletter alerts volunteers of statewide STEP activities, techniques for habitat enhancement or egg incubation, and activities in other states. Over 2,000 copies of each issue were distributed.

Job 2. Collect physical and biological stream survey information.

Objectives:

1. Work with district fish biologists and other land managers to identify stream systems or areas where physical and biological stream data and information on fish populations is inadequate.
2. Conduct 10 training sessions to teach volunteers how to conduct physical and biological stream surveys, spawning fish surveys, and compile survey information.
3. Coordinate and supervise volunteer efforts to conduct physical and biological stream surveys and spawning fish surveys on selected streams.

Accomplishments:

The objective was to obtain physical and biological data on fish populations necessary to implement basin management programs. It was accomplished by meeting with district fish biologists and other land managers to identify stream systems where information was lacking; conducting workshops to train volunteers to do surveys; and by coordinating and supervising volunteer survey projects.

Objective 1. Statewide stream survey records were reviewed and areas identified where surveys have not been conducted in recent years.

A long-term program to update the statewide surveys was developed and a funding package submitted for the 1989 Oregon legislative session to consider. The proposal calls for extensive survey programs to be conducted by ODFW, USFS and BLM.

Objective 2. Twenty-three training workshops were held to train volunteers to conduct various types of physical and biological stream surveys. Over 200 volunteers were trained.

Objective 3. Volunteers conducted physical and biological stream surveys in 31 stream systems (Appendix 1). Over 160 miles of stream were surveyed and the information provided to management biologists.

A major effort was undertaken in the Umpqua River drainage to develop a volunteer spawning fish survey program to evaluate coho stocking programs. Sixty-three survey sites were established throughout the basin and volunteers were asked to walk the section at least three times during the spawning season. Additional sites will be added in 1988 and steelhead surveys will also be conducted.

Job 3. Habitat Improvement

Objectives:

1. Initiate fish habitat improvement projects on streams or standing waters identified in management programs or plans as in need of habitat improvement.
2. Provide on-site training to volunteers on the various methods to improve fish habitat.
3. Provide technical assistance and materials and supplies to volunteer groups to undertake habitat improvement projects.

Accomplishments:

The objective was to enhance fish passage and rearing habitat. It was accomplished by training and supervising volunteers to undertake stream enhancement projects and providing materials for them to do the work. We also participated in cooperative projects with other federal land managers. Materials were

provided to Oregon Youth Conservation Corps crews hired by the Department to improve fish habitat.

Sill logs or rock filled wire baskets (gabions) were installed in streams to improve pool/riffle rations, create adult holding pools or juvenile rearing area, and to trap spawning gravel. Rearing and hiding areas for juvenile fish were created by placing large boulders in the stream. Fish passage was improved by removing log jams, fixing or modifying improperly installed culverts, installing jump pools, or providing passage at impassable barriers. Streamside vegetation was improved by plantings, seeding of exposed areas or fencing to exclude livestock.

Objective 1. One hundred and thirteen stream enhancement projects were undertaken in 40 stream systems (Appendix 1). Most of the work was conducted by volunteers; however, four large projects were completed under cooperative agreements with federal land managers. Over 1,200 volunteers participated in stream enhancement projects and contributed more than 8,700 hours of their time to the work.

Objective 2. STEP biologist's directly supervised many of the stream enhancement projects and were able to instruct the volunteers as the project was undertaken. One portion of the STEP Conference was also used to demonstrate safe enhancement techniques.

Objective 3. STEP biologists visited each proposed project site and worked with the volunteers to design and plan the enhancement work. Materials and supplies were provided as needed.

Job 4. Egg Incubation Program

Objectives:

1. Investigate and approve volunteer requests to incubate eggs or rear fish under the STEP program.
2. Plan and coordinate the distribution of eggs from ODFW hatcheries to over 300 STEP volunteer projects.
3. Provide fish culture technical assistance to over 300 citizen volunteers participating in the egg incubation program.
4. Develop volunteer operated broodstock development projects (fish rearing) on selected streams.

Accomplishments:

The objective is to enhance populations of naturally produced salmon and trout through the release of fry or smolts. Work was accomplished by using volunteers to incubate salmon or trout eggs and releasing the resultant fish in underseeded streams. Volunteers were also involved in broodstock development programs to rear fish to presmolt or smolt sized, and capture returning adults for egg broodstock.

- Objective 1. We received requests from over 400 individuals to participate in the STEP egg incubation program. The applicant was contacted, the request evaluated for meeting a management need, and, if needed, the site investigated.
- Objective 2. We coordinated the distribution of 14.1 million salmon and trout eggs from department hatcheries or STEP rearing facilities to volunteers. We worked with ODFW's Fish Culture Division to ensure all eggs were distributed, and necessary forms recording disposition of eggs were included into the ODFW Hatchery Record system.
- Objective 3. Fish culture assistance was provided to 400 egg incubation sites. With many volunteers hatching multiple fish species, eggs were being distributed and incubated from September through May and required considerable monitoring. Hatching success was good and 9.3 million salmon and trout fry were released into underseeded streams (Table 1).
- Objective 4. Twenty-six rearing projects were operated by volunteers. Seven projects raised fish to full term smolts as part of a broodstock development project, while the remaining sites released fish as fed fingerlings. Returning adults were collected on the Umpqua, Coos and Rogue rivers and at Tenmile Lakes. Over 1.2 million fed fish (fingerlings or smolts) were released by the volunteers (Table 1).

Table 1. Fish Releases by STEP volunteers - 1988.

Species	Coastal Systems	Columbia R System	Total
Chum Salmon			
Fry	18,025		18,025
Presmolt/smolt	6,196		6,196
Coho Salmon			
Fry	1,006,348	676,381	1,682,729
Presmolt/smolt	41,129	20,477	61,606
Spring Chinook			
Fry	342,333	327,900	670,233
Presmolt/smolt	49,850	300	50,150
Fall Chinook			
Fry	2,340,123	14,932	2,355,055
Presmolt/smolt	1,124,311	38,994	1,163,305
Summer Steelhead			
Fry	397,682		397,682
Winter Steelhead			
Fry	2,951,209	585,094	3,536,303
Presmolt/smolt	13,583		13,583
Cutthroat Trout			
Fry	605,098	26,230	631,328
Brown Trout			
Fry		11,307	11,307
Presmolt/smolt		2,000	2,000
Rainbow Trout			
Fry		60,290	60,290
Total			
Fry	7,660,818	1,702,134	9,362,952
Presmolt/smolt	1,235,069	61,771	1,296,840
	8,895,887	1,763,905	10,659,792

Attachment 1. Summary of activities, by major stream system, carried out under Jobs 2, 3, and 4.

	Job 2	Job 3	Job 4	
	Physical & Biological Surveys	Habitat Improvement Projects	Egg Incubation	Fish Rearing
<u>Tillamook STEP Dist.</u>				
Lewis & Clark R			X	
Walluski R			X	
Youngs R			X	
Clatskanie R	X		X	
Necanicum R	X	X	X	
Nehalem R	X	X	X	
Salmonberry R	X			
Miami R			X	
Kilchis R		X	X	
Wilson R		X	X	
Trask R	X	X	X	
Tillamook R			X	
Nestucca R		X	X	
Neskowin Cr			X	
<u>Lincoln STEP Dist.</u>				
Salmon R	X	X	X	
Siletz R	X	X	X	
Depoe Bay Cr			X	
Big Cr			X	
Yaquina R	X	X	X	
Alsea R	X	X	X	
Siuslaw R	X	X	X	X
<u>Umpqua & Upper Rogue STEP Dist.</u>				
Smith R	X		X	
Umpqua R	X	X	X	X
Upper Rogue R		X	X	
<u>Coos STEP Dist.</u>				
Tenmile Lakes	X	X	X	X
Millicoma R		X	X	
Coos R	X	X	X	X
Coquille R		X	X	
<u>So. Coast STEP Dist.</u>				
Elk R		X		
Hubbard Cr			X	

Attachment 1. Summary of activities, by major stream system, carried out under Jobs 2, 3, and 4 (con't).

	Job 2	Job 3	Job 4
	Physical & Biological Surveys	Habitat Improvement Projects	Egg Incubation Fish Rearing
So. Coast STEP Dist. (continued)			
Euchre Cr			X X
Lwr Rogue R		X	X X
Hunter Cr		X	X X
Pistol R		X	X X
Chetco R	X	X	X
Winchuck R	X	X	X
Lwr Willamette STEP Dist.			
Scappoose Cr		X	X
Lwr Willamette Tribs	X	X	X
Sandy R	X	X	X X
Tualatin R	X	X	X
Clackamas R		X	X
Mid & Upper Willamette STEP Dist.			
Mollala R	X		X
Yamhill R	X	X	X
Mill Cr		X	X
Rickreall Cr	X	X	X
Luckiamute R	X	X	X
Santiam R		X	X
Calapooia R	X		
Mary's R	X	X	X
McKenzie R	X		X
MF Willamette R		X	X
Mid-Columbia STEP Dist.			
Hood R	X		X
Deschutes R	X	X	X
Klamath R		X	
Walla Walla R	X	X	X
Silvies R			X
Blitzen R		X	
John Day R	X	X	
Crooked R	X		X