

SALMON TROUT ENHANCEMENT PROGRAM
ANNUAL PROGRESS REPORT

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EXECUTIVE SUMMARY

We report on the activities and accomplishments achieved from October 1, 1995 through September 30, 1996 during the implementation of the Salmon Trout Enhancement Program (STEP). The Salmon Trout Enhancement Program involved citizens in activities that enhanced salmon and trout resources of the state. Trained volunteers worked with Oregon Department of Fish and wildlife (ODFW) personnel on projects to rehabilitate and enhance salmon and trout populations and their habitat. Projects also served as education opportunities to increase understanding by the public of Oregon's aquatic resources and the environment.

STEP projects focused on characterizing fish populations and their habitat in streams, improving habitat, and culturing fish to supplement natural production. Citizen volunteers helped collect information on fish populations and habitat by conducting physical and biological stream surveys. They also assisted with projects to enhance fish passage, and fish spawning and rearing habitat. Finally, citizen volunteers contributed significant effort to ODFW programs to develop broodstock, incubate eggs, and rear fish to enhance populations of naturally produced salmon and trout.

The Salmon Trout Enhancement Program public advisory committee (STAC) recognized eight key issues directed towards STAC involvement. Those are: Outreach to industry, local government and other agencies, funding, roles and responsibilities of STAC, structural organization of STAC, recruitment of STAC, selection of STAC members, performance of STAC, and training for STAC members. Alternates were selected for 11 of the 13 STAC positions.

The STEP biologists participated in the Oregon Department of Fish and Wildlife volunteer council working groups to discuss volunteer management within the STEP program and interacted with ODFW Volunteer Coordinators to discuss their program activities. This semi-annual exchange of ideas is a valuable learning experience.

The following narrative describes highlights of activities generated by volunteers in each ODFW Region and STEP district.

Highlights of results of our work in ten STEP districts are identified in the Summary of STEP Participation Appendix Table 1.

A complete district report is attached or available for review upon request from each district STEP biologist. Appendix Table 2. provides STEP biologist contact information and Appendix Figure 1 identifies the STEP district boundaries.

Columbia Region

North Coast District

Astoria and Warrenton High Schools are operating complete hatchery facilities and Tillamook High School has an aquaculture class. Thirteen schools have classroom incubators. A video tape lending library was developed and made available to schools, sportsman's groups and other interested parties. The collection includes about 75 tapes and is heavily used by schools.

Oregon Trout volunteers participated in a variety of activities in the Salmonberry River. They monitored subsurface oxygen concentrations, conducted a steelhead spawning survey with over 60 volunteers, sampled macroinvertebrates and maintained a series of thermographs.

The Vernonia Chapter of the Izaak Walton League continued gathering data on temperature fluctuations in the upper main stem of the Nehalem River, placed and operated a downstream migrant trap in Bear Creek (Nehalem River) and assisted in collecting samples from summer chinook in the upper Nehalem for genetic analysis.

The Pals of Patterson Creek placed downstream migrant traps in Patterson and Jacoby creeks, tributaries of Tillamook Bay. Volunteers have interacted with the Tillamook Bay National Estuary Program on several projects.

Numerous habitat improvement projects were conducted throughout the district. The Izaak Walton League planted trees in the upper Nehalem basin and The Pals of Patterson Creek planted trees along Patterson and Jacoby creeks. The Oregon Department of Forestry coordinated a large habitat project on the S. Fork of the Wilson River and volunteers anchored woody debris in the Necanicum system.

The operation of Whiskey Creek Hatchery continues to be a large commitment for local volunteers. In addition, net pens for acclimation have been set up for CHS in the Trask and Wilson rivers. Winter steelhead were acclimated in portable fire tanks in the N. Fork Nehalem River below the hatchery. An a portable above ground raceway was used

to acclimate summer steelhead, winter steelhead and spring chinook on the lower Wilson River.

Lower Willamette District

The Portland Metropolitan area provides many opportunities to setup public information and demonstration displays. STEP displays were setup at the Watershed Fair at Madison High School, the Beaver Creek Native Plant Sale, the Sportsmen Exposition in Portland, the Riverfest Celebration in Oregon City, the Passport to Fishing event at Bonneville Fish Hatchery, the Westmoreland Park Fishing Clinic, the Oxbow Salmon Festival, the Citizens Water Monitoring Conference in Tigard and at the Columbia Rigion Volunteer Picnic in Clackamas. The STREAM SCENE, WATERSHEDS WILDLIFE AND PEOPLE, STORM DRAIN MARKING PROGRAM, FISH EGGS TO FRY, HELPING KIDS RAISE FISH, and the STREAM CARE GUIDE were instrumental in public information and education.

Volunteer spawning surveys were conducted on Eagle Creek, Deep Creek, Beaver Creek, Abernethy Creek, Tryon Creek, Crystal Springs Creek and Johnson Creek. Forty-five individuals conducted juvenile fish surveys on 13 district streams.

A \$2,500 grant was donated to Centennial High School by Trout Unlimited for a habitat project in the Beaver Creek Watershed.

Volunteers completed two bank stabalization projects and six riparian planting projects throughout the district.

Stream Enhancement Initiative projects were completed on the N. Fork of Eagle Creek and Delph Creek. Long View Fiber Tree Farm donated logs, equipment and an operator to help build several instream habitat structures.

The Northwest Steelheaders have donated approximately \$9,000 towards classroom incubation projects in schools around the Portland Metro area.

Volunteers were involved in four acclimation projects throughout the Lower Willamette Fish District. The acclimation facilities handled more than 200,000 salmon and steelhead smolts. The sites included, Portland Harbor, Clackamas Cove, and Cassidy's Pond adjacent to the Clackamas River. Several acclimation sites and equipment were seriously damaged by the February flood.

Northeast and High Desert Regions (Eastern Oregon)

The Eastern Oregon STEP district has worked with ODFW district fish managers and regional administrators to develop an efficient planning and program implementation process in an attempt to effectively administer the STEP program in the vast expanses of Eastern Oregon.

Approximately 80 questionnaires were mailed to Eastern Oregon STEP educators who had received training in past Watershed Education workshops. Thirty-four responses were received and the information provided indicates a continued high degree of activity in watershed education through the use of the STREAM SCENE, WATERSHEDS, WILDLIFE AND PEOPLE.

Fifty-one classroom incubator projects were coordinated and supported by the Central Oregon Flyfishers, Klamath Chapter of Trout Unlimited, and the Ochoco Chapter of Trout Unlimited.

A new education program titled Kokanee Karnival was sponsored by the Eastern Oregon STEP program, Central Oregon Flyfishers, Sunriver Anglers and the Deschutes National Forest. Kokanee Karnival was patterned after Oregon Trout's Salmon Watch program. Four schools participated in the Kokanee Karnival that included a field trip to teach students about life cycles, habitat, food chains and water quality. The field trip was followed by a tour of Fall River Hatchery where students observed spawning, ponding and feeding. Then, students received kokanee eggs for their classroom incubators. The final portion of the program involves angler education instruction to students. Donors contributed \$2,000 and 985 hours to this highly successful program.

A volunteer recognition dinner and presentation honored the Central Oregon Flyfishers whose members have contributed over 3,000 hours the past two years.

A draft of Why Wild? A Primer In Fish Genetics is nearly complete.

Two long-term education projects - the Crooked River Ecosystem Education Council (CREEC) in Prineville and the South Wasco Environmental Education Project (SWEEP) at Maupin continue to be active. Trout Unlimited's Bring Back The Natives and Embrace A Stream programs, the ODFW Restoration and Enhancement Board and the Governor's Watershed Enhancement Board granted more than \$30,000 to support CREEC objectives.

A display presented at three county fairs received champion honors and a red ribbon.

Bull trout distribution surveys were conducted on 11.25 miles on the N Fork John Day River. Three new populations of bull trout were discovered, two of which contained bull trout X brook trout hybrids. A survey on the upper Sycan River failed to uncover any bull trout.

Volunteers assisted with spawning surveys for rainbow, brown, and bull trout in the Deschutes District, summer steelhead in the Mid-Columbia and Ochoco Districts and bull trout in the Southeast District.

Twenty-three habitat improvement projects were completed during the contract period using 436 volunteers who donated 6,553 hours.

The Opal Springs hydro project operated by the Deschutes Valley Water District received rainbow and brown trout eggs.

District requests for volunteer assistance with fin clipping activities are increasing with implementation of the Wild Fish Management Policy and volunteers are participating.

Northwest Region

Upper Willamette / Siuslaw District

Worked with a new school program called A Tale of Two Rivers which is a forum to present educational materials.

Participated as a business partner for the second year with Willamette High School on the Certificate of Advanced Mastery Program.

Culverts are being inspected throughout the district and most landowners have been very cooperative.

Streambank stabilization on Hills Creek involved a wide variety of volunteers that used Christmas trees to riprap banks. This should help reduce siltation in Hills Creek and in the Willamette River.

Four landowners, the Albany Chapter of ANWST and Willamette High School students working on Certificates of Mastery are building a skills lab, trails, and tree bridges to develop a hands-on learning site on Miller Creek.

Timber companies were involved with five major stream enhancement projects. Many of the raw materials used were a result of the February flood.

Letz Creek volunteers successfully spawned, incubated, reared, fin clipped, and released a group of winter steelhead smolts in the spring of 1996 from wild stock collected in the lower Siletz River tributaries.

Winter steelhead reared at facilities in Pleasant Hill were fed, fin clipped and released by volunteers into Little Fall Creek and the Middle Fork Willamette River.

Mid Willamette District

Five training workshops were held for teachers focusing efforts on introducing The Stream Scene watershed curriculum.

Physical and/or biological survey activities were conducted in almost all of the major subbasins within the district. The majority of school surveys focused on streams that were adjacent to participating schools, generally in the urban environment.

The majority of landowner inquiries for habitat improvement come from small landowners. Several commercial timber companies, municipalities, and urban developers have expressed interest in involvement.

Forty-seven schools participated in 59 classroom egg incubation projects raising rainbow trout spring and fall chinook salmon.

Newport District

The STEP district continued to work with the Mid-Coast educator's natural resource agencies, local government and timber companies to create a Coast Range Natural Resource Education Organization to promote and develop natural resource based educational programs and develop a resource center in the Alsea School District.

Trained participants in two community development programs: "Jobs in the Woods" and "Hire the Fisher".

Assisted the Oregon Department of Transportation in producing a watershed protection and restoration training video for road crews and volunteers.

Gave presentations on salmon and watersheds at an Oregon Trout "Salmon Watch" program for local high schools on the Yaquina River.

Oregon Parks and Recreation continued to operate a steelhead aquarium exhibit at the Alsea Bay Interpretive Center in Walport.

Sixty students from Florence adopted Condon Creek, a recently enhanced tributary of the N Fork Siuslaw River.

Spawning surveys for chum salmon were conducted by volunteers on the Siletz and Alsea Rivers. The Siletz and Yachats rivers were surveyed for fall chinook.

The Central Coast NW Steelheaders and the Hebo USFS continued to trap and monitor steelhead and coho populations on the S. Fork of Schooner Creek in the Siletz basin.

Estuary seining was conducted in the Siletz, Alsea and Yaquina basins to monitor chinook smolt run timing and abundance.

A Mid-Coast Salmon Restoration project was completed on Mill Creek on the Siletz River. Twenty instream habitat structures were installed with help from Georgia-Pacific.

Five hundred conifers were planted along the riparian area of Tenmile Creek by volunteers from the Tenmile Association, Trout Unlimited and the Newport Boy Scouts.

The STEP district participated in the Mid-Coast Watershed Council assessment of local watershed conditions.

The Florence STEP group completed habitat projects in the N. Fork Siuslaw, Knowles Creek, Wildcat Creek and McLeod Creek.

The Florence STEP group completed its Triangle Lake coho broodstock development program at the end of six years.

The Central Coast NW Steelheaders assisted with construction of a steelhead acclimation pond on the Siletz River.

New construction projects on Munsel Creek included an indoor spawning shed, an egg incubation shed and a new smolt acclimation site.

The Florence STEP group reared 202,500 winter steelhead eggs for the Siuslaw River smolt program.

The Depoe Bay Salmon Enhancement commission continued a coho supplementation project on North Depoe Creek.

Fourteen schools participated in 36 egg incubation projects raising coho and steelhead to the fry stage.

Southwest Region

Umpqua District

The Umpqua Fishwatch Program continued this year with volunteers acting as a deterrent to poaching by conducting car patrols and camping in travel trailers at key sites on Steamboat Creek and the South Umpqua River.

Oregon Equestrian Trails took over stocking the high lakes.

Volunteers developed a Searun Cutthroat Symposium as a STEP project and was sponsored by the Lower Umpqua Flycasters in Reedsport. The Symposium drew 212 participants including many experts from throughout North America.

The fish district free fishing day activities were coordinated.

Volunteers and personnel from the USFS and BLM surveyed 111 reaches of stream to inventory spawning coho salmon. Two volunteers coordinated a coho spawning survey program that involved 84 surveyors both volunteers and personnel from the USFS and BLM.

UTEP crews installed instream structures in over one-half mile of Brush and Thistleburn creeks.

A landowner on Paradise Creek installed fish habitat improvement structures.

Fish culture activities are very popular in the district. They include brood stock collection, spawning, carcass disposal, egg incubation, rearing and fish transportation.

Upper Rogue District

Volunteers worked closely with the ODFW fish screen program and helped with the removal of an irrigation dam on Pickett Creek.

Implementation of the Governor's Salmon Restoration program was a high priority with time spent on project development, tree planting and project completion.

Assisted with Free Fishing Day activities at Selmac Lake.

ODFW management personnel used 39 volunteers for 450 hours to determine distribution of salmonids in stream systems in the Rogue River Basin.

District personnel, Trout Unlimited, the Rogue River Guides, the Rogue River Flyfishers and a Boise Cascade biologist completed a habitat restoration project on the W. Fork of Trail to enhance steelhead and coho rearing habitat.

The Upper Rogue Watershed Council and ODFW completed the project at the lower falls on Big Butte Creek. A lower jump pool was added to the ladder to allow passage of larger salmonids at low flows and to alleviate a velocity barrier.

Three summer steelhead rehabilitation hatchbox projects were conducted during this contract period.

Thirty four Rogue Valley schools participated in 102 classroom incubator projects.

The Rogue River Guides Association completed the fourth year of a five year net pen acclimation project for Rogue spring chinook. Of 72 voluntary coded-wire-tags recovered, none were from the net pen group.

Coos District

Public awareness efforts involved direct public involvement with projects, presentations, tours, and use of the media to spread the word according to Dr. Thomas.

A spawning building was constructed in Cunningham Creek on the campus of Coquille High School. The spawning building along with the recently constructed trap and adult holding pond provides an opportunity for the students and the volunteers to participate in all stages of the salmon's life cycle.

Two new buildings were added to the Millicoma Interpretive Center, a shop and an incubator room.

Adult spawning ground surveys were expanded significantly this year. Most of the new surveys evaluated spawning habitat restoration projects or evaluate hatchery programs. Blossom Gultch Creek had dozens of coho resulting from fry releases three years ago. Coho had not been seen in Bolssom Gultch Creek for over 20 years and had to navigate 2,700 feet of culvert under the city of Coos Bay!

Stream surveys that identify the seeding levels of coho fry remains a primary focus.

Surveys were conducted in the Coos and Coquille River Estuaries to determine the mean-fork-length of juvenile fall Chinook at ocean entrance.

The largest habitat restoration projects in the district were the riparian planting and fencing efforts in the Coos River basin.

The STEP biologist provided fish culture assistance to volunteers at 25 incubation and rearing sites.

Twenty-eight rearing or acclimation projects were operated by volunteers. Nearly 100,000 salmon were marked in an effort to evaluate the success or impact of the various release groups. Angler effort in the Coos Bay estuary was at an all time high.

South Coast District

STEP projects on the south coast are primarily focusing on broodstock collection of fall chinook to rehabilitate lower Rogue tributaries and supplementation in the Chetco River

Presentations were given to five new south coast watershed councils.

Volunteer help was utilized to conduct abundance index surveys of juvenile fall chinook in Hunter and Euchre creeks, and the Pistol, Chetco, and Winchuck rivers.

A juvenile steelhead abundance survey was conducted on the Sixes River to compare habitat quality to juvenile abundance. Data will be used by NMFS for ESA evaluation.

Aquatic Habitat Inventory surveys were conducted on Euchre, Hubbard, Floras and Willow creeks.

STEP volunteers helped tag and track over 1500 fall chinook on the Chetco River.

The highest profile habitat project was in Jack Creek, a Chetco River tributary and was supported and guided by the Chetco Watershed Council. This is a bio-engineering project that required a tremendous amount of resources from many groups.

Volunteers assisted with broodstock collection activities on the Chetco River, Pistol River, Hunter Creek, and the lower Rogue River for fall Chinook.

Fall Chinook collected in the lower Rogue River were transported to Indian Creek STEP facility and the resulting offspring were incorporated into a smolt program for rehabilitation of the depressed lower Rogue stock.

Appendix Table 1.

**Summary of STEP Participation
(October 1995 through September 1996)**

Category Activity	No. of Activities	No. of People	Hrs Donated	Miles Survey	\$ Donated	\$ ODFW
Youth/Education						
Habitat Improvement	48	869	7,490	6	\$35,781	\$6,599
Stream Surveys	79	1,532	8,291	81.6	22,136	450
Training Classes	41	811	3,754	0.5	2,117	230
Egg Incubation ^a	338	5,335	28,570	0	13,489	889
Broodstock Collect	6	390	1,910	0	1,400	420
Rearing	13	866	5,639	0	3,028	600
Acclimation	2	7	33	0	0	0
Information/Ext.	180	3,996	1,698	0	1,065	150
Recruitment	22	908	1,684	0	257	0
Miscellaneous	2	64	256	0	200	0
Spawn/Fin Clip/Stock	9	195	851	0	2,724	539
Subtotal	740	14,973	60,176	88.1	\$82,197	\$9,877
General Public						
Habitat Improvement	149	961	12,153	3	\$149,871	\$16,081
Stream Surveys	139	615	10,147	332.4	13,619	1,680
Training Classes	47	501	2,375	2	830	115
Egg Incubation ^a	104	1,005	15,498	0	21,686	8,060
Broodstock Collect	27	592	9,062	0	9,070	5,460
Rearing	27	1,633	22,670	0	113,609	9,455
Acclimation	28	391	4,903	0	34,639	18,575
Information/Ext.	341	4,540	6,483	0	11,220	500
Recruitment	43	1,199	1,038	0	75	727
Miscellaneous	95	806	8,758	6	30,572	1,350
Spawn/Fin Clip/Stock	3	23	162	0	114	22
Subtotal	1,003	12,266	93,249	343.4	\$385,305	\$62,025
Total	1,743	27,239	153,425	431.5	\$467,502	\$71,902

^a Participants not available, hours donated estimated at 75 hours/hatchbox.

* Special event participants not available due to volume of people attending shows, fairs, and displays.
Estimates in the thousands.

Appendix Table 2.

OREGON DEPARTMENT OF FISH AND WILDLIFE

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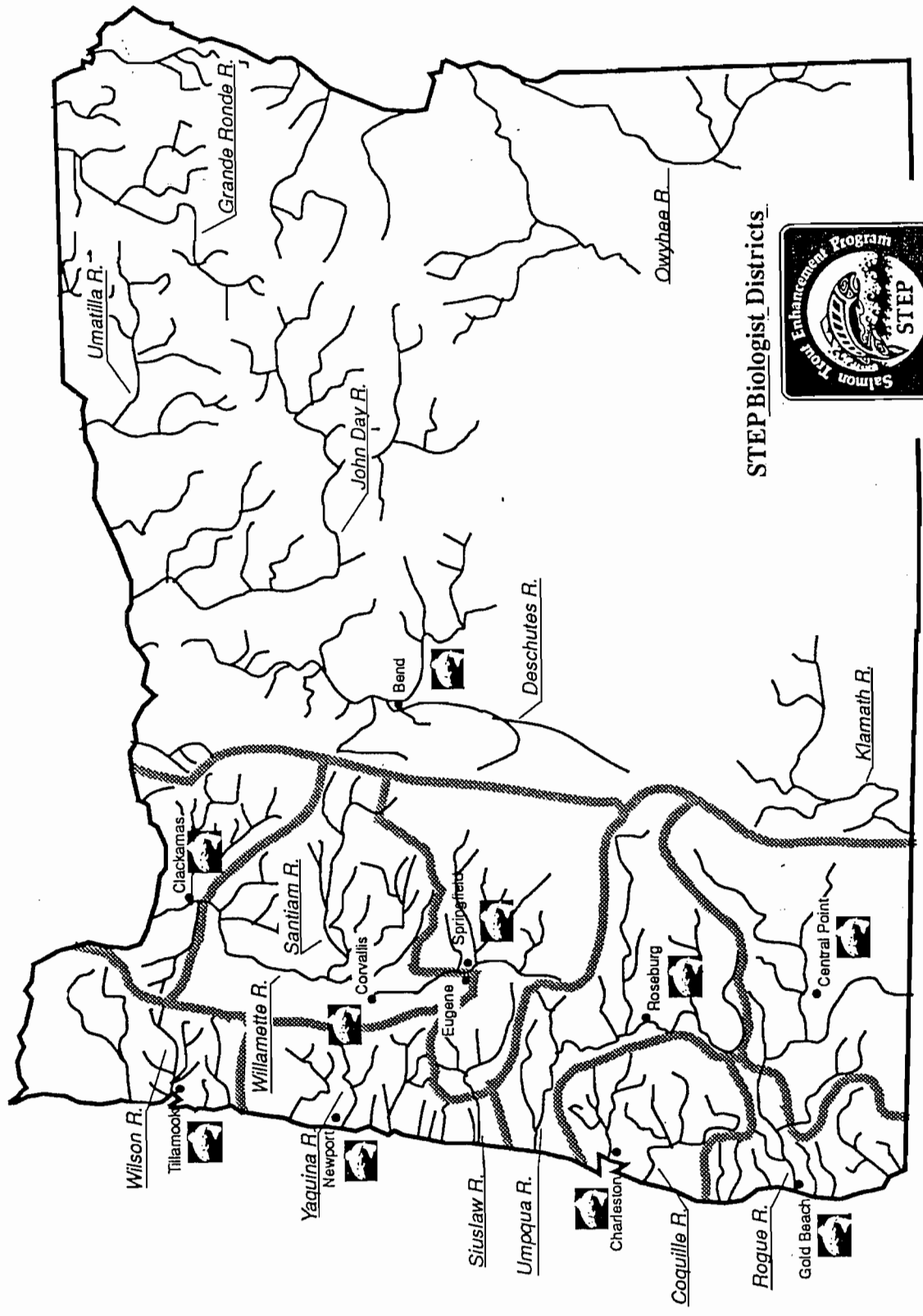
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STEP Biologist Districts



Appedix Figure 2

STEP District Map