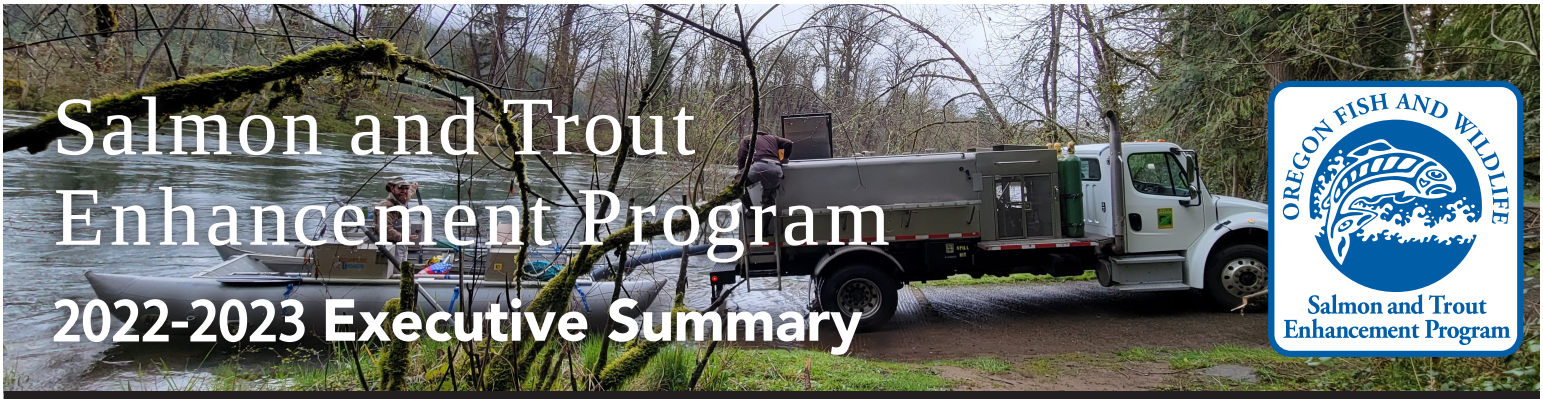


Salmon and Trout Enhancement Program

2022-2023 Executive Summary

LEGISLATIVE REPORT

This annual legislative report summarizes the activities and accomplishments of The Salmon and Trout Enhancement Program (STEP) from October 1, 2022 to September 30, 2023. STEP activities are integral to accomplishing Oregon Department of Fish and Wildlife's (ODFW) fish management objectives. During the 2022-2023 reporting period, statewide STEP volunteer efforts involved 957 youth and 2,941 adult volunteers donating 52,909 hours of time, which is equal to approximately 25 full-time equivalents (FTEs). STEP volunteer efforts in this reporting period were valued at $1,789,906.00.

STEP volunteer efforts are valued at **$1,789,906.00**

The types of projects conducted through STEP reflect the diverse ways that volunteers can assist with fish and habitat management needs throughout Oregon. The issues and priorities within individual watersheds are often unique to those areas and the focus of STEP efforts can vary across the state. Generally, activities can be grouped into four main categories.

EDUCATION AND PROGRAM DEVELOPMENT

58,117 people participated in STEP educational activities

These activities include participation in trainings, classes, tours, presentations, workshops, egg to fry classroom projects, and public events.

INVENTORY AND MONITORING

Nearly **297 volunteers** contributed to fish monitoring and inventory efforts

Participants logged **4,816 hours** on **206 projects** statewide, assessing sport fisheries, conducting fish passage inspections and surveying in-stream habitat.

HABITAT IMPROVEMENT

STEP volunteers improved **618 miles** of waterways for fish

453 participants improved Oregon's fish habitat through fish passage, in-stream, riparian and fish carcass placement projects, and the Keep Oregon Rivers Clean (KORC) program.

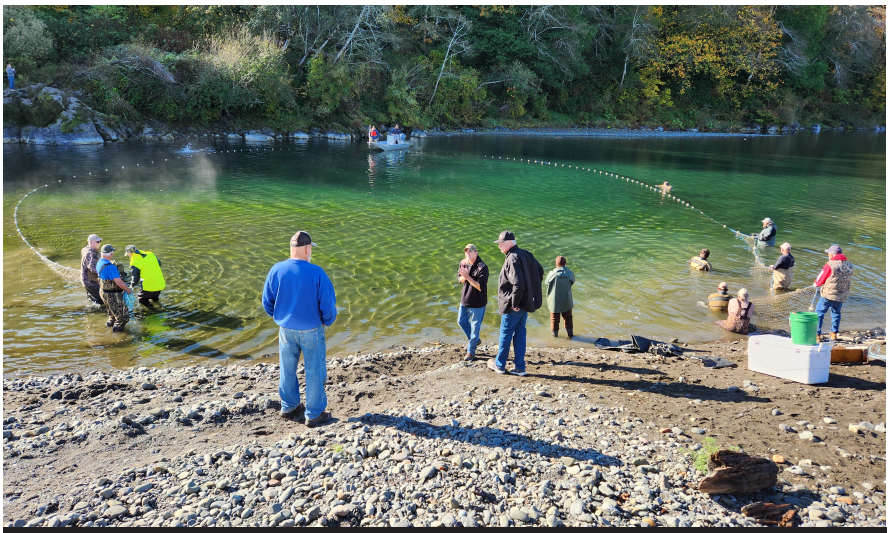
FISH CULTURE

4.72 million Chinook Salmon, Coho Salmon, steelhead, and trout were reared or released by STEP volunteers

These fish were used for enhancement or augmentation purposes. Of these, **1.89 million fish** were fed and cared for by STEP volunteers before release and **7,761 fish** were collected for broodstock.

Volunteers clipping fins at the Rhoades Pond STEP Hatchery.

Since 1981, **395,898+ volunteers**
have contributed more than **4.06 million hours**
to approximately **52,651 STEP projects**



STEP Volunteers collecting brood stock on the Chetco River.

STEP BACKGROUND

The Oregon Legislature established STEP in 1981 as a program within ODFW. Its mission is to "achieve the recovery and sustainability of the state's native salmon and trout through the education of Oregon's citizens and their involvement with fish management efforts." Since then, approximately 395,898 adult and youth volunteers have contributed more than 4.06 million hours to an estimated 52,651 STEP projects.

STEP is funded by a combination of the U.S. Fish and Wildlife Service (USFWS) Sport Fish Restoration (SFR) grant program and ODFW funds. The program consists of a coordinator and administrative assistant in the ODFW headquarters office in Salem and 11 STEP biologists located throughout the state. The coordinator and assistant divide their time between the STEP program and ODFW's Fish Restoration and Enhancement Program.

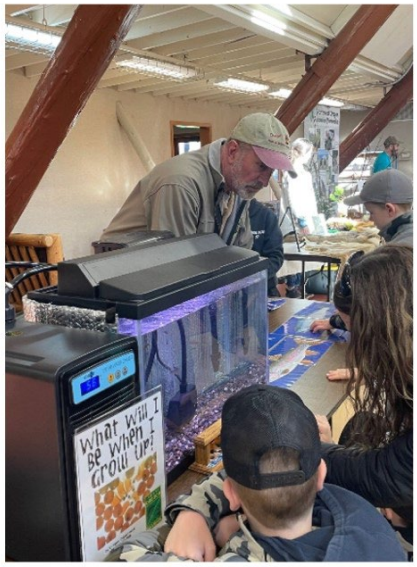
ADVISORY COMMITTEE

The Governor appoints a 9-member STEP Advisory Committee (STAC), which is comprised of citizens representing all of Oregon. The committee meets bi-annually around the state and advises ODFW on policy and the implementation of STEP. The committee administers the STAC Mini-Grant Program, funded through a $50,000 biennial grant from the ODFW Fish Restoration and Enhancement (R&E) Program Mini-Grants are available in amounts up to $2,000 for projects that further the goals of STEP.

The full version of this report is available online at www.dfw.state.or.us/fish/step/ under "Annual Progress Reports" heading.

Salmon and Trout Enhancement Program Coordinator, Oregon Department of Fish and Wildlife
4034 Fairview Industrial Dr. SE, Salem, Oregon 97302 (503) 947-6232 www.dfw.state.or.us/fish/STEP

OREGON Fish & Wildlife



Prepared by:
Oregon Department of Fish and Wildlife
4034 Fairview Industrial Drive
Salem, Oregon 97302

SALMON & TROUT ENHANCEMENT PROGRAM

2022-2023 Annual Progress Report

Table of Contents

Background and Summary

This report summarizes the activities and accomplishments of the Salmon and Trout Enhancement Program (STEP) from October 1, 2022, to September 30, 2023. The Oregon Legislature established STEP in 1981 as a program of the Oregon Department of Fish and Wildlife (ODFW) that seeks to "achieve the recovery and sustainability of the state's native salmon and trout through the education of Oregon's citizens and their involvement with fish management efforts". Although this goal will not be achieved by the program acting alone, annual volunteer efforts through STEP to enhance fisheries and restore habitats lend critical support to the management programs of ODFW and contribute to the more extensive statewide efforts toward fish and watershed restoration under the Oregon Plan for Salmon and Watersheds.

The role of STEP within ODFW is defined by Oregon Revised Statute (ORS 496.430 through 496.465) and Oregon Administrative Rule (OAR 635-009-0090 through 635-009-0150) specific to the program. Program activities are also guided by broader ODFW fish and habitat management policies including the Native Fish Conservation Policy, Fish Hatchery Management Policy, and the Fish Health Management Policy. These policies establish direction for the broader ODFW fish and habitat management efforts that include STEP, provide support for a wide range of STEP activities, and set biological impact thresholds. The policies also allow STEP to work with other ODFW programs for which STEP can provide important volunteer and educational support.

The types of projects conducted through STEP reflect the diverse ways that volunteers can assist with fish and habitat management needs throughout Oregon. The issues and priorities within individual watersheds are often unique to those areas and the focus of STEP efforts can vary across the state. Generally, activities can be grouped into four main categories:

- **Education and Program Development** informs the public about the STEP Program, Oregon's salmon and trout resources, and their habitats. Projects include classroom incubators (also known as the "Fish Eggs-to-Fry Program"), presentations, classes, volunteer training, tours, displays, printed materials, equipment, construction, and maintenance.

- **Inventory and Monitoring activities** characterize fish populations and their habitats. Projects include stream and riparian habitat surveys and other methods used to study, monitor or inventory fish life history, presence, distribution, or abundance.

- **Habitat Improvement activities** enhance, restore, and protect habitat for native stocks of salmon, steelhead, and trout. Projects include the placement of large woody debris in streams, riparian protection and restoration, fish passage improvement and fish carcass placement for stream nutrient enrichment. This category also includes aesthetic improvements to lakes and streams achieved through the Keep Oregon's Rivers Clean (KORC) fishing line and tackle recycling program.

- **Fish Culture activities** produce fish to supplement natural fish production, augment fisheries, or, in the case of the classroom egg incubation program, provide educational opportunities. This category also includes fish rescued, transplanted, or reintroduced.

- **Fishing Access and Opportunity** - The 25-year Angling Enhancement Plan was adopted in February of 2010 to outline strategies for providing diverse, stable, and productive angling opportunities and facilitate an increase in angling participation. Because of its strong connection to the volunteer base, and the local needs and interests, STEP is used to directly address recreational fishing priorities; specifically, opportunity, access, and mentoring. While the focus is on youth anglers and families it also provides direct and indirect benefits to all anglers.

STEP is funded by a combination of the U.S. Fish and Wildlife Service (USFWS) Sport Fish Restoration (SFR) grant program and ODFW funds (75 percent federal with 25 percent state match). The program consists of a coordinator and administrative assistant, located in the ODFW headquarters office in Salem, and 11 STEP biologists. Staff divides their time between the STEP program and the Restoration and Enhancement Program. STEP is implemented in the field by eleven staff located throughout the state who spend either all or part of their time serving as a STEP Biologist (SFR funds the equivalent of 10.17 full-time employees, eight staff are fully funded by SFR and five are partially funded).

In addition, program oversight is provided by the nine-member STEP Advisory Committee (STAC) comprised of citizens appointed by the Governor. The committee advises the Oregon Fish and Wildlife Commission (Commission) and ODFW on policy and the implementation of STEP. The committee also administers the STAC Mini-Grant Program, funded through a $50,000 biennial grant from the ODFW Fish Restoration and Enhancement (R&E) Program. The Mini-Grants are available in amounts up to $2,000 for projects that further the goals of STEP and are reviewed for approval by STAC at their meetings. From October 2022 to September 2023, two in-person meetings were held at various locations across the state.

Within each watershed management district, the STEP biologist fills several roles including fish and habitat biologist, educator, outreach specialist, community or technical advisor, and lead for volunteer management. The program works with a variety of individuals, groups and organizations including adult and youth volunteers, angling and conservation interests, watershed councils, soil and water conservation districts, private landowners, schools, individual students, and other state, federal and local government agencies. Through STEP, these individuals and organizations work with ODFW to conduct community-based watershed restoration and species recovery efforts throughout Oregon.

Introduction

STEP biologists and volunteers conduct a variety of activities that help develop the program and educate the public about Oregon's fish resources. These include:

Presentations to groups, teaching classes, conducting tours, and holding workshops

Hosting displays or booths at fairs and festivals, and preparing written materials such as articles, news releases, websites, brochures, and STEP publications.

Training STEP volunteers or project cooperators with the technical skills that allow them to conduct or assist with projects.

Maintaining or constructing equipment or facilities.

Assisting with program administration and other activities.

Providing digital content including livestreams and videos.

Volunteers assist ODFW in conducting a variety of inventory, monitoring, and evaluation projects to provide information on Oregon's salmon, steelhead and trout, their habitats, and associated fisheries.

The major types of activities conducted through STEP are:

Angler or creel surveys.

Fish passage or culvert inspections.

Fish population or distribution survey or monitoring.

Fish life history or other investigations.

Stream and other aquatic habitat surveys.

Miscellaneous monitoring activities (e.g., water quality monitoring)

To conduct these surveys, volunteers become skilled in sampling methods and learn a wide variety of fish or fishery sampling techniques, including adult and juvenile fish traps, electro- fishing gear, seines, gill nets, trap nets, snorkeling, hook and line, radio telemetry, and creel surveys.

Each year, volunteers conduct or assist with numerous habitat improvement projects on private and public lands throughout Oregon. These include efforts to improve or restore:

Fish passage.

In-stream habitat.

Riparian, off-channel, wetland, or floodplain habitat.

Stream nutrients through fish carcass placement.

Aesthetic qualities through the Keep Oregon's Rivers Clean program.

Although the stream nutrient enrichment program is not strictly a STEP activity, many carcass placement projects rely heavily on the manual labor of STEP volunteers, as access to sites can be poor and carcasses must be placed in a manner that simulates natural distribution and conditions. Carcass placement occurs in streams where populations of spawning anadromous salmonids are well below historic levels.

STEP is in a unique position in that it can bring all aspects of restoration under one program. These include pre and post project monitoring, technical guidance, equipment, labor, outreach, and access to funding.

The Keep Oregon's Rivers Clean (KORC) program was created to collect and recycle discarded angling line and tackle. Currently, over 100 stations have been installed and are being maintained by volunteers within the fish districts.

STEP volunteers conduct or assist with all stages of fish propagation, including collecting and spawning adult fish, incubating eggs, and rearing, acclimating, and releasing juvenile fish. STEP volunteers often work in conjunction with ODFW fish hatcheries at one or more of the stages in the fish production cycle. In a few locations where there are no ODFW hatchery programs due to lack of facilities or hatchery capacity, STEP volunteers operate facilities that perform the entire rearing cycle from broodstock collection to release. In both cases, STEP propagation efforts are guided by ODFW management objectives, and are consistent with the guidelines, practices, and protocols outlined by hatchery management policy.

Because STEP fish culture projects are an integral part of ODFW fish management programs, oversight of STEP propagation activities occurs in a variety of ways. Initially, STEP propagation proposals go through an approval process at the local, regional, and Fish Division levels within ODFW to ensure the projects will meet fish management objectives and are consistent with policies regarding potential impact to native fish populations. Specific legal limitations regarding STEP also exist to ensure that projects comply with other applicable goals, policies, rules, and plans, and limit the duration and size of projects.

STEP propagation projects operate on three to five-year cycles depending on the type of project and fish species involved. Once the cycle is complete, the project must be reviewed through a formal renewal process. In addition, STEP propagation projects that rear and release more than 100,000 fish must receive authorization from the Commission. Presentation of the project at a Commission meeting also serves as an opportunity for public comment. Public comment during the propagation project review process can also be submitted directly to staff or can be provided when the project is presented for review by STAC at a regularly scheduled STAC meeting. If public interest warrants, ODFW may choose to hold additional public meetings to present and discuss projects under review.

The importance of STEP fish culture efforts to Oregon's fish resources has provided program activities some legal protections such as not having to obtain water rights for approved STEP projects. STEP biologists work closely with volunteers to ensure a facility complies with the applicable operating and reporting requirements for ODFW fish hatchery facilities and those of STEP. The program biologists also help carry out the project logistically, work with other ODFW staff to coordinate cooperative propagation efforts and provide technical assistance.

STEP fish propagation facilities are funded, built, operated, and maintained by the volunteers with ODFW assistance and oversight.

The purpose of STEP fish propagation programs is to rehabilitate or supplement populations of naturally produced salmon and trout or augment fisheries with hatchery fish. Thousands of volunteers have assisted Oregon's fisheries through their involvement in STEP and their donation of money, materials, equipment, and countless hours of time and labor. Without these efforts, ODFW's propagation ability would be greatly diminished in many areas.

Many projects have more than one single purpose and often serve as educational opportunities to increase public understanding and stewardship of Oregon's fish resources and the aquatic environment.

STEP fish culture projects are generally grouped into the following types:

Classroom egg incubation program projects that release unfed fry, also known as the "Fish Eggs-to-Fry" program.

Stream hatch-box projects that release unfed fry.

Fish rearing projects. All activities included here involve feeding and caring for fish.

Projects that acclimate fish before release.

Projects that collect adult broodstock.

Miscellaneous activities including volunteer help at ODFW hatcheries for maintenance, broodstock collection, spawning, marking, stocking, and other duties, and salvage of wild fish

Summary of Current Efforts

The following summarizes some key accomplishments of the program during 2022-2023:

Approximately 58,117 people participated in STEP training, classes, tours, presentations, or workshops, or visited STEP activities or displays at public events (Table 1). These activities involved nearly 1,132 youth and adult volunteers. This includes 739 individual Fish Eggs-to-Fry classroom projects that reached approximately 39,576 individuals.

Over 297 volunteers contributed nearly 4,816 hours on 206 projects to inventory and monitor fish populations in streams and rivers across the state (Table 2).

Nearly 618 miles of waterways were improved for fish use by 453 volunteers through fish passage, in-stream, riparian and fish carcass placement projects and the Keep Oregon River's Clean program (Table 3).

STEP volunteers assisted with 54 activities to help maintain fishing and boating sites across the state, providing 926 hours of volunteer service. (Table 4)

STEP volunteers assisted with rearing and releasing of nearly 4.72 million Chinook Salmon, Coho Salmon, steelhead and trout for enhancement or augmentation purposes. 1.89 million of these fish were reared (fed and cared for) before release and over 7,761 broodstock fish were collected (Table 5). This includes the fish released from classroom incubators used in the Egg to Fry program.

The agency continues to implement the 25-Year Angling Enhancement Plan. Major accomplishments by STEP include continuing to improve access to local angling sites and fishing events and trainings.

This reporting period still reflects some continued reductions in activities due to COVID-19 related health and safety restrictions. Restrictions resulted in the cancellation of some events and non-essential projects. For essential projects, staff took a more involved role as the size of volunteer work parties were limited. This resulted in a decline in both volunteer involvement in projects and public participation in educational activities compared to pre-pandemic years. Even with these reductions, volunteers continued to make substantial contributions to continue the core missions and projects of STEP and ODFW.

Highlights of the 2022-2023 statewide volunteer efforts include:

957 youth and 2941 adult volunteers participated in STEP activities.

Volunteers participated in 3668 projects across the state and their efforts totaled 52,909 hours of volunteer time. This is equivalent to approximately 25 full time employees.

Using the estimated amount of $34.00 per hour for volunteer time, the value of STEP volunteer hours was over $1,798,906.00.

For this report, each STEP biologist provided a narrative that describes their district and an overview of activities in that district for each of the four main program components (education and program development, inventory and monitoring, habitat improvement, and fish culture).

- The appendices include the following program information:
- Appendix 1. A list of the current STAC members
- Appendix 2. A list of the current STEP biologists

Tables and Figures

EDUCATION AND DEVELOPMENT

Table 1.

Education and development activities, participation, and volunteer effort by STEP district, 2022-2023. Figures in parentheses indicate the number of Fish Eggs-to-Fry classroom incubator projects.

EDUCATION AND DEVELOPMENT								
				Volunteers				
STEP District	Activities		Participants	Youth	Youth Hours	Adults	Adult Hours	Total hours
Coos-Coquille	22	(14)	1,184	0	0	8	32	32
Eastern Oregon	45	(39)	3,249	1	12	94	1,225	1,237
Lower Rogue	25	(12)	6,321	4	64	181	1,921	1,985
Mid-Coast	28	(57)	2,276	60	240	234	2,277	2,517
Mid-Willamette	43	(160)	14,708	97	182	248	1,860	2,042
North Coast	4	(10)	675	0	0	12	28	28
North Willamette	1	(223)	17,562	0	0	52	395	395
Umpqua	22	(31)	2,601	0	0	41	288	288
Upper Rogue	4	(74)	3,250	0	0	27	95	95
Upper Willamette	23	(119)	6,283	0	0	65	472	472
STAC	2	(0)	8	0	0	8	256	256
Total	219	(739)	58,117	162	498	970	8,849	9,347

INVENTORY AND MONITORING

Table 2.

STEP inventory and monitoring activities, miles affected and surveyed and volunteer effort, 2022-2023.

INVENTORY AND MONITORING								
				Volunteers				
STEP District	Activities	Miles Affected	Miles Surveyed	Youth	Youth Hours	Adults	Adult Hours	TOTAL HRS
Coos-Coquille	8	12	12	0	0	16	64	64
Eastern Oregon	9	23	23	0	0	29	307	307
Lower Rogue	28	101	101	0	0	79	1,440	1,440
Mid-Coast	10	0	0	0	0	57	1,573	1,573
Mid-Willamette	11	26	26	1	5	37	285	290
North Coast	4	14	14	0	0	13	228	228
North Willamette	0	0	0	0	0	0	0	0
Umpqua	87	27	27	0	0	10	234	234
Upper Rogue	19	72	72	0	0	18	396	396
Upper Willamette	30	31	31	0	0	37	284	284
Total	**206**	**306**	**306**	**1**	**5**	**296**	**4,811**	**4,816**

HABITAT RESTORATION

Table 3.

Habitat restoration activities, miles affected and restored and volunteer effort by STEP district, 2022-2023.

HABITAT								
				Volunteers				
STEP District	Activities	Miles	Acres	Youth	Youth Hours	Adults	Adult Hours	TOTAL HRS
Coos-Coquille	46	39	0	3	10	18	229	239
Eastern Oregon	4	15	6		0	11	838	838
Lower Rogue	9	18.5	0	0	0	8	76	76
Mid-Coast	23	127	4	0	0	44	302	302
Mid-Willamette	18	69	3	165	222	42	390	612
North Coast	4	154	0	15	39	14	85	124
North Willamette	2	1	0	0	0	25	90	90
Umpqua	9	29	0	0	0	17	70	70
Upper Rogue	32	111	1	15	90	65	559	649
Upper Willamette	8	54		6	30	5	30	60
Total	**155**	**617.55**	**14**	**204**	**391**	**249**	**2669**	**3060**

FISHING IMPROVEMENTS

Table 4.

Fishing access and improvement effort by STEP district, 2022-2023.

FISHING IMPROVEMENTS						
		Volunteers				
STEP District	Activities	Youth	Youth Hours	Adults	Adult Hours	TOTAL HRS
Coos-Coquille	0	0	0	0	0	0
Eastern Oregon	1	0	0	1	620	620
Lower Rogue	7	0	0	9	82	82
Mid-Coast	4	0	0	1	20	20
Mid-Willamette	1	2	9	19	60	69
North Coast	1	0	0	10	33	33
North Willamette	5	0	0	2	40	40
Umpqua	0	0	0	0	0	0
Upper Rogue	0	0	0	0	0	0
Upper Willamette	35	0	0	7	62	62
Total	**54**	**2**	**9**	**49**	**917**	**926**

FISH CULTURE

Table 5.

Fish culture activities and volunteer effort by STEP district, 2022-2023. Figures in parentheses indicate the number of Fish Eggs-to-Fry classroom incubator projects. This table reflects the number of fish reared and released at STEP hatcheries, acclimation sites, and from classroom incubation projects.

FISH CULTURE

		Number of Fish			
STEP District	Activities	Broodstock Collected	Reared	Released	Egg to Fry Eggs
Coos-Coquille	646 (14)	5,025	948,332	1,368,310	1,400
Eastern Oregon	8 (39)	0	0	8,000	9,550
Lower Rogue	6 (12)	345	87,665	84,420	1,200
Mid-Coast	11 (57)	468	49,364	161,278	5,700
Mid-Willamette	0 (160)	0	0	0	35,000
North Coast	2 (10)	542	308,250	297,237	2,900
North Willamette	133 (223)	96	375,000	375,000	48,000
Umpqua	239 (31)	289	91,004	198,336	3,100
Upper Rogue	65 (74)	996	34,128	64,128	3,700
Upper Willamette	123 (119)	0	0	158,047	1,900
Total	**926 (218)**	**7,761**	**1,893,743**	**2,714,756**	**112,450**

Northwest Region

Lower Willamette STEP

John Cox, STEP Biologist

Ben Walczak, District Fish Biologist

The Lower Willamette STEP area covers the Department's North Willamette Watershed District (NWWD), and with the Portland metropolitan area inside its boundaries, has the largest population of any STEP district in Oregon. The large angling population presents the district with the challenge of meeting the varied needs of a broad and changing demographic. There are also numerous fish management constraints associated with conservation and recovery of native fish species and species listed under the Endangered Species Act (ESA). The district mission is to provide ongoing and improving angling opportunities, improvements to habitat for fish and wildlife, and a continuing contribution to the quality of life that people in this area have come to enjoy and expect.

The district covers waters from the eastern slopes of the coast range east to Mt. Hood, and from the city of Clatskanie south to Salem. The larger river basins include the Columbia, Willamette, Sandy, Clackamas, Tualatin, Molalla, Yamhill, and Pudding and their many tributaries. The varied landscape includes farmland, urban areas, forestlands, mountains, and wetlands. Fish species include salmon, steelhead, trout, and sturgeon, among others. There is also a wide diversity of warm water angling opportunities with several species of warm water game fish present in the district.

Population growth along with the associated development and urban sprawl, and the ever- changing constituency continue to place considerable strain on the natural resources. District staff strives to maintain a balance between fish and wildlife protections, continued opportunities for fishing, hunting, or outdoor viewing enjoyment, while meeting the new demands on the resources associated with rapid population growth and development.

In 2022-23, the STEP position was largely unfilled, due a job rotation by the STEP Biologist in another program, and a budget shortfall that resulted in the position being held open for an extended period. As a result, activities and events ran and supported by the program were limited and this report reflects that lack of staffing.

Education and Program Development

Family Fishing Events

This year Lower Willamette STEP volunteers led one Family Fishing Event at Sheridan Pond in May 2023, which was a success due to their dedication to the program. Another event was planned at St. Louis Ponds, but it was canceled due to warm temperatures that precluded trout stocking.

Fish Eggs-to-Fry Program

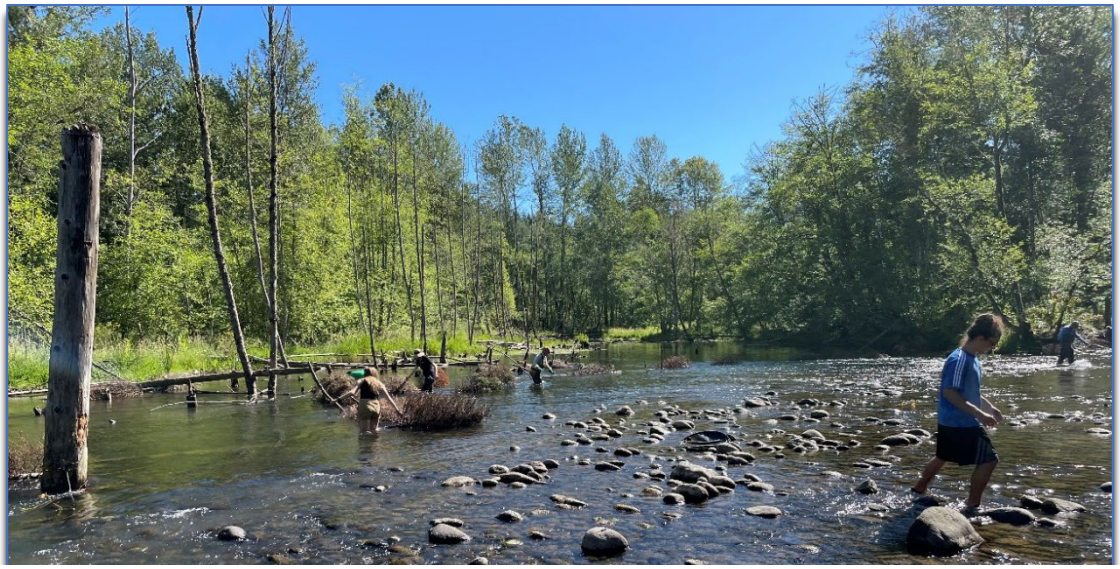
The Lower Willamette STEP has been a leader in the Eggs-to-Fry program for several years and continued to see interest and growth in the classroom incubator program in 2022-2023. Participation was high, with a record 146 classrooms raising spring Chinook Salmon in the fall, and 72 classrooms raising rainbow trout in the winter. These incubation projects hatched eggs and released thousands of unfed salmon and trout fry into a dozen different STEP-approved lakes, ponds, and streams within the district. Several local chapters of the Association of Northwest Steelheaders, Trout Unlimited, the local OSU Extension Service (4-H), CREST, the National Wildlife Federation, Oregon Zoo, and Reed College sponsored classroom incubation projects in schools around the greater Portland Metro Area. With the tremendous popularity of the program, its success would not be possible without the dedication of the many volunteers donating many hours of time.

Fish Egg to Fry volunteers

HABITAT IMPROVEMENT

CHRISTMAS TREE PLACEMENTS

The district continued in collaboration with Trout Unlimited, the Clackamas River Basin Council, and other partners to place Christmas trees in the Clackamas River basin to provide habitat for juvenile salmon, trout, and steelhead. Trout Unlimited resumed their donation and collection program to gather trees. These trees were dropped off in January near placement areas, and then placed into side channels of the Clackamas River with volunteers and partners in late spring and summer, after high river flows in the spring subsided. Clackamas County Parks, Metro, and Oregon State Parks continue to be great partners in helping facilitate access to areas for these tree placements.



Christmas tree placement for instream habitat

USED FISHING LINE AND TACKLE COLLECTION

North Willamette STEP continues to maintain Keep Oregon Rivers Clean (KORC) stations along rivers, lakes, and ponds in the district. These line and tackle collection stations can be found on the Sandy River, Clackamas River, Blue Lake Park, The Columbia Slough, Commonwealth Pond, Bethany Lake, Herman Creek, St. Louis Ponds, Canby Pond, Salish Ponds, Benson Lake, Promontory Park at North Fork Reservoir, the Columbia River at Rooster Rock State Park and Dalton Point Park, and Henry Hagg Lake. Most are maintained through volunteer efforts and by staff at parks where they are located. NWWD STEP is also seeking new opportunities to place KORC stations in additional popular fishing spots within the district.

FISH CULTURE

FISH ACCLIMATION PROJECTS

Acclimation facilities have been a key component of fish release strategies in the district for several years and operation of these facilities is an important function of STEP. Releases from acclimation sites are intended to coincide with hatchery production and provide increased angling opportunities on the Willamette, Clackamas, Sandy, and Molalla rivers.

Since the spring of 2013, an acclimation pond has been functioning on Trout Creek near its confluence with the Molalla River. Daily operation of this facility is performed entirely by volunteers from the Coastal Conservation Association (CCA) and the Association of Northwest Steelheaders. During March and April of 2023, 100,000 Chinook Salmon smolts were acclimated and released from the facility to improve runs that have been struggling in recent years.

The Foster Creek Acclimation Facility continued to be a productive site for STEP. Nearly 25,000 summer steelhead smolts and 50,000 winter steelhead smolts from the Foster acclimation pond during the spring of 2023. With the guidance of NWWD District staff, volunteers assisted with maintenance and feeding at this facility. Anglers have seen a very productive fishery develop in this section of the Clackamas River in recent years, likely due to these smolt releases.

The Clear Creek Acclimation Facility was completed and put into production in spring of 2009, and the McLoughlin Chapter of the Association of Northwest Steelheaders have provided essential support, performing daily feeding and maintenance duties. No smolts were acclimated at this facility in 2023.

The Eagle Creek Acclimation Facility, located at Eagle Fern Park on Eagle Creek, was completed, and put into production in early 2010. With funding from an R&E Program grant provided through the Oregon Wildlife Heritage Foundation, this facility was built from the ground up on the banks of Eagle Creek a few miles up from the confluence with the Clackamas River. Before the acclimation season in 2023, a large tree fell on the pond and severely damaged it, and no smolts were acclimated there this year.

The Bull Run River Acclimation Facility saw its 12th year of production in 2023 at the site of the decommissioned PGE Bull Run Powerhouse. Releases of spring Chinook Salmon from this acclimation site are part of a District strategy to address problems involving stray rates of Sandy Hatchery spring Chinook Salmon by giving the salmon a return destination away from the wild fish in the Upper Sandy Basin. The effort is proving to be successful as returns to the lower river have improved while stray rates have decreased. All spring Chinook Salmon smolts in the Sandy River are now released at this acclimation site instead of at Sandy Hatchery, so management of this facility by volunteers is critical. The site at Bull Run saw 200,000 spring Chinook Salmon smolts released in the spring of 2023, with the help of volunteers from the Sandy Chapter of the Association of Northwest Steelheaders.

WINTER STEELHEAD BROODSTOCK COLLECTION

The collection of wild winter steelhead broodstock on the Clackamas and Sandy rivers was completed with assistance from the Northwest Steelheaders, individual volunteers, and local fishing guides, as well as landowners who allowed access to the river through their property. This project is instrumental in District fish management goals to integrate wild steelhead into hatchery programs and would not happen without the help of these volunteers contributing over 250 hours of their time, in addition to significant financial contribution from operation of powerboats to access the fishery.

SCHOOLS AND GROUPS THAT WORK WITH THE LOWER WILLAMETTE STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Education**
Ainsworth Elementary School, Portland	Oak Creek Elementary School, Lake Oswego
Alberta Rider Elementary School, Tigard	Ockley Green Middle School, Portland
Alliance Charter Academy, Oregon City	Ogden Middle School, Oregon City
Alpha High School, Gresham	Oregon Episcopal School Opal Charter School, Portland
Archbishop Howard School, Portland	Oregon State University 4-H Extension Service
Archer Glenn Elementary School, Sherwood	Oregon Trail Academy, Boring
Arleta Elementary School, Portland	Orenco Elementary School, Hillsboro
Astor School, Portland	Otto Peterson Elementary School, Scappoose
Banks Elementary School, Banks	Paul L Patterson Elementary School, Hillsboro
Barnes Elementary School, Beaverton	Pioneer Special School, Portland
Beavercreek Elementary School, Beavercreek	Pleasant Valley School, Gresham
Beverly Cleary School, Portland	Portland Waldorf School, Milwaukie
Bilquist Elementary School, Milwaukie	Powell Valley Grade School, Gresham
Boeckman Creek Elementary School, Wilsonville	Poynter Middle School, Hillsboro
Bolton Primary School, West Linn	Quatama Elementary School, Hillsboro
Bonny Slope Elementary School, Portland	Rachel Carson Environmental Middle School
Boones Ferry Primary School, Wilsonville	Raleigh Hills Elementary School, Portland
Boring Middle School, Boring	Raleigh Park Elementary School, Portland
Bridlemile Elementary School, Portland	Reed College, Portland
Buckman Elementary School, Portland	Renaissance School of Science, Portland
Candy Lane Elementary School, Milwaukie	Rex Putnam High School, Milwaukie
Carden Cascade Academy, Hillsboro	Reynolds High School, Troutdale
Carus Elementary School, Oregon City	Ridgewood Elementary School, Portland
Catlin Gabel School, Portland	River Mill Elementary School, Estacada
Cedaroak Park Primary School, West Linn	Riverdale Grade School, Portland
Centennial High School, Gresham	Riverside Elementary School, Milwaukie
Chehalem Elementary School, Beaverton	Rosedale Elementary School, Hillsboro
Christ the King Catholic School, Milwaukie	Sabin-Schellenberg Center, Portland
City View Charter School, Hillsboro	Salish Ponds Elementary School, Fairview
Clackamas High School, Clackamas	Sam Barlow High School, Gresham
Clackamas River Elementary School, Estacada	Sandy Grade School, Sandy
Clarkes Elementary School, Mulino	Sauvie Island Academy, Portland
Colton Middle School, Colton	Scappoose High School, Scappoose
Cooper Mountain Elementary School, Beaverton	Scholls Heights Elementary School, Beaverton
Cornelius Elementary School, Cornelius	Sexton Mountain Elementary School, Beaverton
Creative Science School, Portland	Sitton Elementary School, Portland
CREST, Wilsonville	Skyline Elementary School, Portland
David Douglas High School, Portland	South Meadows Middle School, Hillsboro
De La Salle North Catholic High School, Portland	Southwest Charter School, Portland
Deep Creek Elementary School, Damascus	Spring Mountain Elementary School, Happy Valley
Deer Creek Elementary School, Tigard	Springwater Environmental Sciences School, Or. City
Earl Boyles Elementary School, Portland	St. John Fisher School, Portland
Early Learning Community School	St. Paul Elementary School, St. Paul
East Sylvan Middle School, Portland	St. Rose School, Portland
Echo Shaw Elementary School, Cornelius	St. Thomas Moore School, Portland
Emerson School, Portland	Stafford Primary School, West Linn

Estacada High School, Estacada	Stoller Middle School, Portland
Estacada Junior High School, Estacada	Sunnyside Elementary School, Clackamas
Ewing Young Elementary School, Newberg	Sunnyside Environmental School, Portland
Farmington View Elementary School, Hillsboro	Sunstone Montessori, Portland
Faubion Elementary School, Portland	North Plains Elementary School, North Plains
Fir Grove Elementary School, Beaverton	Sweetbriar Elementary School, Troutdale
Five Oaks Middle School, Beaverton	Terra Linda Elementary School, Portland
Floyd Light Middle School, Portland	Thomas R Fowler Middle School, Tigard
Forest Hills Lutheran Christian School, Cornelius	Tom McCall Upper Elementary School, Forest Grove
Forest Park Elementary School, Portland	Trillium Creek Primary School, West Linn
Franklin High School, Portland	Trost Elementary School, Canby
Free Orchards Elementary School, Cornelius	Tualatin Valley Academy, Hillsboro
Gaffney Lane Elementary School, Oregon City	Valley Catholic Elementary School, Beaverton
Gladstone High School, Gladstone	Verne Duncan Elementary School, Happy Valley
Gordon Russell Middle School, Gresham	View Acres School, Milwaukie
Greenway Elementary School, Beaverton	Walt Morey Middle School, Troutdale
Gresham High School, Gresham	West Linn High School, West Linn
Groner Elementary School, Hillsboro	West Sylvan Middle School, Portland
Grout Elementary School, Portland	West Tualatin Valley Elementary School, Portland
H.B. Lee Elementary School	West Union Elementary School, Hillsboro
H.B. Lee Middle School, Portland	Westgate Christian School, Portland
Happy Valley Elementary School, Happy Valley	Westridge Elementary School, Lake Oswego
Harvey Clarke Elementary School, Forest Grove	Whitford Middle School, Beaverton
Heritage Christian School, Hillsboro	Willamette Primary School, West Linn
Hogan Cedars Elementary School, Gresham	Winterhaven School, Portland
Holy Trinity Catholic School, Beaverton	Witch Hazel Elementary School, Hillsboro
Imlay Elementary School, Hillsboro	Witchhaven School, Portland
Indian Hills Elementary School, Aloha	Inza R Wood Middle School, Wilsonville
Inza R Wood Middle School, Wilsonville	Woodland Elementary School, Fairview
Jackson Middle School, Portland	Organizations
Jacob Wismer Elementary School, Portland	Coastal Conservation Alliance
Joseph Gale Elementary School, Forest Grove	Get Hooked, Inc
Kinnaman Elementary School, Aloha	McLoughlin Chapter Assoc. of NW Steelheaders
Kraxberger Middle School, Gladstone	Molalla Chapter Assoc. of NW Steelheaders
Ladd Acres Elementary School, Hillsboro	Newberg Chapter Assoc. of NW Steelheaders
LaSalle Catholic Preparatory School, Milwaukie	NODR
Lee Elementary School, Portland	NW Flyfishers
Lenox Elementary School, Portland	Sandy Chapter Assoc. of NW Steelheaders
Lent Elementary School, Portland	SOLV
Lewis & Clark Montessori Charter School, Damascus	Tualatin Valley Chapter Assoc. of NW Steelheaders
Lewis Elementary School, Portland	Government
Life Christian School, Aloha	City of Fairview
Lillies Pad Learning	City of Portland Water Bureau
Lincoln High School, Portland	Clackamas County Parks
Lincoln Street Elementary School, Hillsboro	Clackamas River Basin Council
Linwood Elementary School, Milwaukie	Clean Water Services
Lowrie Primary School, Wilsonville	Johnson Creek Watershed Council
Mabel Rush Elementary School, Newberg	Metro Parks
MCA Public Charter School	Oregon State Parks
Meek Pro Tech High School	Oregon Zoo
Miller Education Center, Portland	Project YESS
Milwaukie High School, Milwaukie	Sandy River Basin Council
Minter Bridge Elementary School, Hillsboro	The Confederated Tribes of Grande Ronde
MITCH Charter School, Tualatin	Tualatin Hills Parks & Recreation
Molalla River Academy, Molalla	Tualatin River Basin Council
Molalla River Middle School, Molalla	U.S. Fish & Wildlife Service
Mt. Hood Community College, Gresham	U.S. Forest Service

Mt. Tabor Middle School, Portland	Weyerhaeuser Timber Company
Nancy Ryles Elementary School, Beaverton	W Verne McKinney Elementary School, Hillsboro
New Urban High School, Oak Grove	

MID-WILLAMETTE STEP

Reed Fischer, STEP Biologist

Alex Farrand, Assistant District Fish Biologist

Elise Kelley, District Fish Biologist

The Mid-Willamette STEP District is a geographically diverse area in the South Willamette Watershed District reaching across the Willamette Valley from the crest of the Coast Range east to the crest of the Cascades. The Willamette River travels the length as it flows from McKenzie River confluence downstream to the agricultural lands north of Salem. Within this area, three major river systems flow from the western slopes of the Cascades into the Willamette (North Santiam, South Santiam, and Calapooia). Another five (Glen/Gibson, Rickreall, Luckiamute, Marys, and Long Tom) drain the eastern slopes of the Coast Range. The district is also one of the most populated regions of Oregon. Salem, Eugene, Corvallis, and Albany are the larger urban areas, but several smaller cities, towns, and rural communities are scattered throughout. The natural resource concerns that have accompanied the area's historical land uses of timber harvest and agriculture have been complicated by the challenges posed by urbanization.

Despite the growing human population and resulting changes to the landscape, the Willamette River Basin continues to support a diversity of fish. Native among these include spring Chinook Salmon, winter steelhead, rainbow trout and cutthroat trout. Several salmonid species have also been introduced including fall Chinook Salmon, Coho Salmon, and summer steelhead. Although the focus of STEP efforts in this area is upon the native salmonids, the program through its educational, monitoring, and habitat efforts also provides benefits to the basin's many other native fish.

A failure to recognize the importance of the watershed rather than just stream health has led to the degradation and loss of aquatic habitats across Oregon. In this area, one of the results has been federal listings under the ESA of the Mid Willamette's two native stocks of salmon and steelhead. In response, the State of Oregon and its citizens have initiated a comprehensive and cooperative community-based approach to watershed restoration under the Oregon Plan.

Although all ODFW programs have an important role in this effort, STEP finds itself uniquely situated in that its responsibilities include many of the major components of the Oregon Plan. Most importantly, the foundation of STEP is community involvement with these activities. The focus of STEP in this District has been therefore to involve area groups, schools, and individuals in all aspects of ODFW's local fish management efforts.

Because the area's population is large and still growing, STEP must emphasize outreach and education in the Mid-Willamette basin. This is achieved in-part through direct community involvement with many ODFW activities but particularly monitoring and inventory efforts and educational programs. Adult and youth participation with these projects demonstrates that communities can assist with the more technical needs of fish recovery and provides the "hands on" experience that fosters stewardship by providing increased awareness of these species. Of special interest have been new inventories on waters that are considered "at

risk" and for which little or no fishery information exists. The data gathered has been essential to habitat protection and restoration efforts throughout the basin, especially those in the agricultural and urban areas.

Education and Program Development

Technical Assistance

In 2022-2023, the STEP Biologist gave presentations detailing fish resources, management issues and ODFW volunteer opportunities to a variety of interests including: students, teachers, or other educational organizations; angler and conservation groups; Watershed Councils; and other federal, state, and local agencies. The district works with eight watershed councils in a variety of roles including providing general information, technical expertise to habitat, inventory, and fish passage projects, assisting with volunteer training, and assisting with the development of action plans and restoration priorities. The STEP Biologist provides technical assistance to many agencies and organizations on fish related matters including the road related repair or culvert replacements in Linn, Lane, Benton, and Polk Counties, Department of State Lands regulatory actions, and habitat restoration projects throughout the district. The STEP Biologist is a member of the Oregon Watershed Enhancement Board Region 3 Technical Review Team, Long Tom Watershed Council, Calapooia Watershed Council, and Luckiamute Watershed Council's technical teams.

In 2022-2023, the STEP Biologist attended in-person site visits, to assist Luckiamute Watershed Council, City of Keizer, City of Salem, City of Corvallis, the Mary's River Watershed Council, and the Natural Resources Conservation District with fish passage projects. The STEP Biologist also attended virtual site visits to review projects proposed for the Willamette Wildlife Mitigation Fund as well as for projects seeking OWEB funding, and the Claggett Creek planning team.

Youth Education

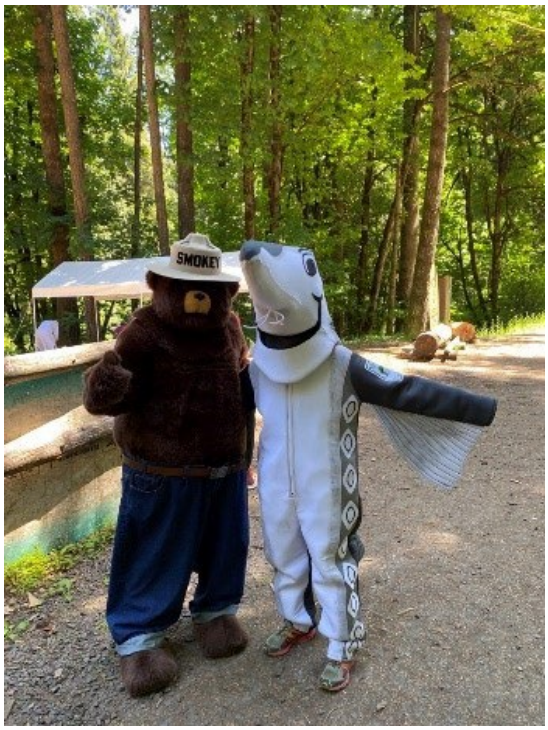
One of the STEP Biologists most popular activities are fish dissection at District area elementary, middle, high schools, summer camps, and training events for adults. This year STEP provided adult female steelhead for students to dissect. This was immensely popular and allowed for many discussions on Salmon biology and conservation. Dissecting an actual adult salmon in the classroom was an unforgettable experience to the 32 separate classes who got to participate.

Students work in teams to dissect the fish. Volunteers from the ODFW's Angler Education Program, STEP, and the Mid Valley Chapter of Association of Northwest Steelheaders, and several ODFW employees/interns, as well as many parents and school volunteers assist with the dissection. For many students, this is their only opportunity to do a dissection on any type of animal as opposed to a plastic model or virtual computer program. The STEP Biologist includes information on fish biology, such as how fish hear, see, detect odors, and osmoregulation in fresh and saltwater, as well as similarities between fish and human biology. The STEP Biologist will also dissect an adult salmon or steelhead carcass at Family Science Night events. While many restrictions were still in place, the STEP Biologist and volunteers were able to host 32 fish dissections at Mid-Willamette District schools and 8 dissections at outdoor school.

The STEP Biologist sits on the Linn-Benton Salmon Watch Steering Committee. The Committee meets year-round to plan for Salmon Watch field trips in September, October, and November. Students from Fifth and Sixth grade travel to rivers where salmon are spawning to learn about water quality, macroinvertebrates, riparian areas, and salmon biology.

In addition to being on the steering committee, the STEP Biologist trains volunteers and teachers, as well as participating in several field trips each year. In 2021 - 2022, due to COVID 19 restrictions, September Salmon Watch trips were canceled. However, staff from the Benton County Soil & Water Conservation District did organize Salmon Watch Trips for Benton County schools. The STEP Biologist hosted the fish biology station at one regular Salmon Watch trips, as well as a Saturday Family Salmon Watch trip.

The STEP Biologist hosted or assisted with 11 youth fishing events including a Trout 101 Workshop, Fishing Assistance Booths, the annual Fishing in the Forest event with OSU and a family fishing event for 4th grade students from Philomath Elementary School.



Youth fishing event with Smokey the Bear and Herman the Sturgeon.

Inventory and Monitoring

FISH POPULATIONS AND THEIR HABITAT IN STREAMS

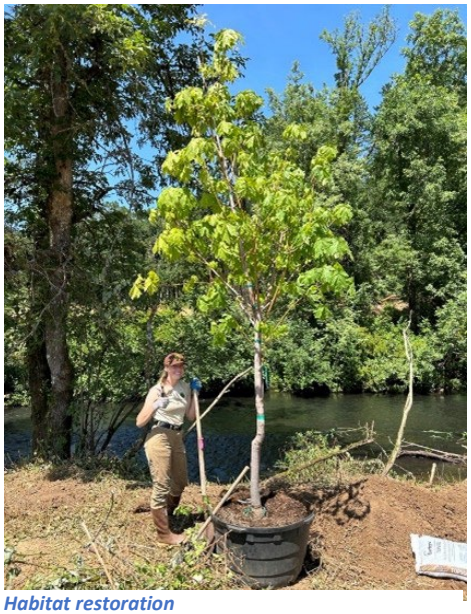
STEP again led the district's small stream sampling effort with fish population surveys in the Mid-Willamette District. These efforts involve STEP Volunteers, students from local schools, and District area landowners using stationary traps, seine nets, electrofishing, hook & line sampling methods as well as snorkel and spawning surveys to capture or observe fish. The primary intent of these projects is to document the presence of native fish in waters where little or no fish information exists and to get a sense of relative abundance and fish health. However, additional benefits come from raised awareness for the "little brown fishes" in the area and educational opportunities for students. There has been an increased effort to detect and document lamprey at all life stages in the district. Information on fish presence has in-turn been used by cities, counties, watershed councils, and state and federal agencies to develop habitat restoration and protection plans as well as to identify individual project opportunities. The data gathered from sampling and surveys will be used in the future to plan habitat restoration projects.

In 2022-2023, STEP coordinated volunteers to assist with fish sampling efforts in Mid- Willamette District locations. STEP volunteers assisted with surveys for larval lamprey in Salem and Corvallis area creeks. Students from McKay and College Hill High Schools assisted with these surveys. Students from Oregon State University and Willamette University assisted in several surveys of local creeks on their campus.

Habitat Improvement

PARTNERSHIPS AND TECHNICAL ASSISTANCE

Because much of the land in the Mid-Willamette basin is privately owned, restoration efforts rely heavily on the cooperative participation of private landowners. In addition to efforts with other state, local and federal agencies, STEP works closely with watershed councils, industry, individuals, and the more traditional landowner assistance agencies to conduct stream nutrient enrichment, in-stream and riparian habitat, and fish passage restoration projects.



Habitat restoration

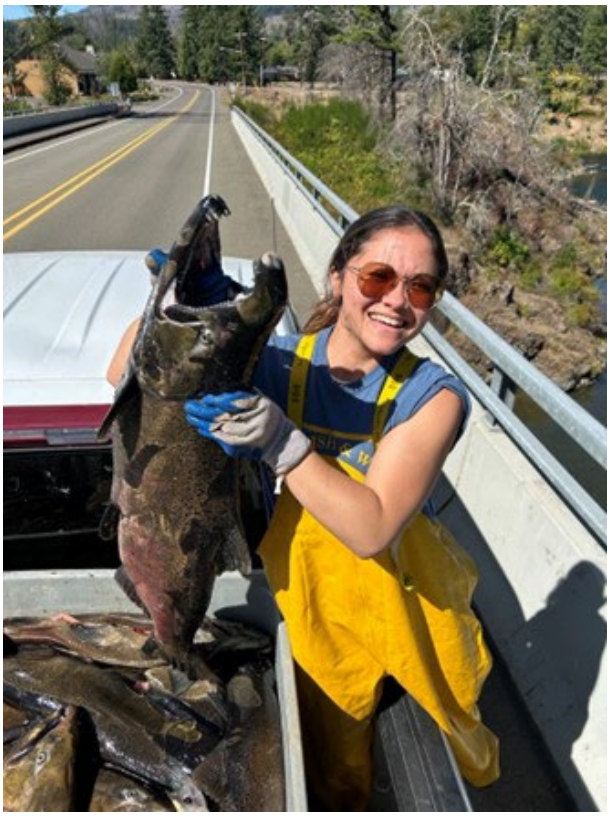
Throughout 2022-2023, the STEP Biologist attended site visits and meetings to offer technical and grant seeking advice to landowners throughout the district on fish habitat restoration and projects to improve fish passage. The STEP Biologist provided technical advice to the U.S. Fish and Wildlife Service, U.S. Forest Service, Bureau of Land Management, as well as the Calapooia, Luckiamute, North Santiam, South Santiam, Long Tom, and Mary's River Watershed Councils on fish passage and habitat restoration projects. The STEP Biologist attended 9 site visits to review and give technical advice on habitat restoration projects.

STEP worked with local Turner elementary schools to replant over 1000' of native riparian plants along Mill Creek with the help of student volunteers. This project was a pilot for many others like it to come and involves lessons on invasive species control, human impacts on rivers, and how restoration biology works.

The STEP Biologist administers the Riparian Lands Tax Incentive Program (RLTIP) for the Mid-Willamette District.

CARCASS PLACEMENT

The placement of salmon and steelhead carcasses into area streams for nutrient enrichment is accomplished only through the efforts of volunteers and has surprisingly become one of the more popular STEP activities. To replicate historic abundance and distribution, carcasses are placed in rivers and streams in the district. In 2022-2023, salmon carcasses used as brood for programs at the Foster Fish Collection Facility were placed in the South Santiam Basins. Salmon Carcasses from the Minto Fish Collection Facility were distributed to the North Santiam River, the Little North Fork Santiam, and Whitewater Creek. The STEP Biologist and volunteers were unable to distribute salmon carcasses to the Breitenbush River due to hazards that remain from past wildfires in the area. Salmon carcasses from the Foster Fish Collection Facility were out planted to the South Santiam River as well as Soda Fork, Moose, and Canyon Creeks. Between the Minto and Foster Fish Collection Facility efforts, 25 STEP volunteers assisted with the carcass enrichment efforts. These volunteers included staff from the USFS Sweet Home Ranger District, and Detroit Ranger District who assisted with the salmon carcass distribution on 4 days. In all, approximately 3,000 spring Chinook Salmon (36,000 lbs.) carcasses were distributed to the 20 miles of the South Santiam River and its tributaries.



Carcass placement

Likewise, 1000 Chinook Salmon carcasses (12,000) were distributed to 25 miles of the North Santiam River including the Little North Santiam and Whitewater Creek.

USED FISHING LINE AND TACKLE COLLECTION

Keep Oregon's Rivers Clean (KORC) Fishing Line Collection Stations

Since 2004, volunteers in the Mid-Willamette STEP District have maintained a series of fishing line collection stations. The stations are located on the North Santiam River at Stayton Boat Ramp, John Neal Park, North Santiam Park, Fishermen's Bend, and Mill City Boat Ramp. On the South Santiam River, collection stations are located at Waterloo Park (2), Wiley Park, Sunnyside Park, and Foster Reservoir. There is also a line collection station at Walling and EE Wilson Ponds, as well as Crystal Lake Boat Ramp and Michaels Landing both in Corvallis.

During 2022-2023, the STEP Biologist continued to work with KORC volunteers to monitor and maintain the line tube collection stations. As a result, 1 box of fishing line were sent to Berkely to be recycled into fish habitat structures.

Fish Culture

ODFW fish propagation programs in the Mid-Willamette basin have evolved greatly over the last two decades. With greater emphasis now placed upon the restoration and conservation of the basin's wild fish resources and the current federal listings of upper Willamette spring Chinook Salmon and winter steelhead under the Endangered Species Act, the STEP District's fish culture program looks much different from that of the 1980's. Concern surrounding the potential impacts of introduced fry upon native populations, and the primary need for habitat enhancement in those streams identified as deficient in natural production, have changed the focus of the program's efforts.

Chinook Salmon Eggs

FISH EGGS-TO-FRY PROGRAM

The Egg-to-Fry Classroom Program within the District is for educational purposes only and is not intended to contribute to fish production goals. However, as an educational program, it is without a doubt one of the most successful and cost-effective ways to teach many students about salmon and trout biology. In addition, students and adults participating in the program come away from the experience with a respect and appreciation for salmon and trout, and for their habitat. In the mid-Willamette STEP District, schools with students from kindergarten to high school and from urban and rural areas participate in the program.

The program had significant expansion in the 2022-2023 season, reaching 2 corrections facilities for both adults and juveniles. The program also has a tank in a Salem area hospital, local city government building, and outreach center for adults. The goal of the program is shifting to include as many different age groups as possible to spread interest in salmon recovery as far as possible. This has put tanks in several school libraries in addition to classrooms. This program reaches almost 9,000 students in the district.

For the 2022 Chinook Salmon and rainbow trout Egg to Fry, volunteers were once again able to assist the STEP Biologist with transporting salmon and trout eggs to District schools. Eggs are delivered to each classroom by ODFW staff or volunteers. A brief presentation helps to prepare the students for the project and convey the importance of their effort. STEP volunteers, ODFW HQ, and members of the ODFW's Angler Education Instructors, provide invaluable assistance with the classroom egg incubation program. These volunteers have recruited and "adopted" several schools in their local areas for which they provide information and incubation equipment, lend technical expertise, and assist during field trips to the release sites.

Spring Chinook Salmon fry were released into the Willamette, North Santiam, South Santiam, and Calapooia River Basins wherever the fish were historically present. Rainbow Trout are released at several selected locations scattered throughout the Willamette Valley including reservoirs and many local, isolated ponds. The fry-stocking program in the ponds has had surprising success. One location is Pagoda Pond at the Oregon 4-H Center near Salem where hundreds of children every year participate in outdoor school and summer camp fishing programs.

SCHOOLS AND GROUPS THAT WORK WITH THE MID-WILLAMETTE STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Education**
Abiqua Academy, Salem	Oregon School for the Deaf, Salem
Ash Creek, Corvallis	Philomath High School, Philomath
Battle Creek Memory Care Center	Pratum Elementary School, Salem
Calapooia Middle School, Albany	Pringle Elementary School, Salem
Cascade Senior High School, Turner	Queen of Peace School, Salem
Cascade Junior High School, Turner	Stayton Middle School, Stayton
Centennial High School, Halsey	Santiam Christian School, Adair Village
Clear Lake Elementary, Keizer	Scio Elementary School, Scio
Cloverdale Elementary School, Turner	Seven Oak Middle School, Lebanon
Community Roots School, Silverton	Silver Crest Elementary School, Silverton
Crescent Valley High School, Corvallis	Stayton Middle School, Stayton
Crosshill Christian	Salem Heights Elementary School, Salem
College Hill High School, Corvallis	South Salem High School, Salem
Corvallis High School, Corvallis	South Shore Elementary School, Albany
CTEC High School, Corvallis	South Albany High School, Albany
Englewood Elementary, Salem	Sprague High School, Salem
Franklin School, Corvallis	St Joseph's School, Salem
Garfield Elementary, Corvallis	Sunrise Elementary, Albany
Hallman Elementary, Salem	Talmage Middle School, Independence
Hoover Elementary School, Corvallis	Turner Elementary School, Turner
Jefferson Elementary School, Jefferson	Western Christian, Salem
Jefferson Elementary School, Corvallis	Whitworth Elementary School, Dallas
Kalapuya Elementary School, Salem	Wildcat Elementary School, Corvallis
Lamb Elementary, Salem	Willamina Elementary
Linn Benton Juvenile Detention Center, Albany	**Organizations**
Liberty Elementary School	Calapooia Watershed Council
Luckiamute Charter School, Dalles	Luckiamute Watershed Council
Mark Twain Elementary School	Mid Valley Chapter ANWS
McKay High School, Salem	Salem Chapter ANWS
Monmouth Elementary, Monmouth	Salmon Watch
Monroe Elementary School, Monroe	**Government**
Monroe High School, Monroe	**Benton County Soil & Water Conservation District**
Muddy Creek Charter School, Corvallis	
North Albany Elementary, Albany	
North Albany Middle School, Albany	
North Salem High School, Salem	
Oak Grove Elementary, Albany	
Oak Heights Elementary, Sweet Home	

UPPER-WILLAMETTE STEP

Martyne Reesman, STEP Biologist

Jeremy Romer, Assistant District Fish Biologist

Jeff Ziller, District Fish Biologist

The Upper Willamette STEP District coordinates volunteer efforts to maintain, protect, restore, and evaluate native populations and habitats of salmon and trout within the headwaters of the Willamette River. Spanning the Willamette Valley from the Coast Range to the Cascade Mountains, the District encompasses the Eugene-Springfield metropolitan areas, the third largest population area in the state. The major watersheds in the district are the Coast Fork Willamette, McKenzie, and Middle Fork Willamette rivers.

Spring Chinook Salmon are the only anadromous salmonid native to the area, although a small winter steelhead run has been established in the Middle Fork Willamette River. Resident and fluvial populations of Rainbow, Cutthroat, and Bull trout are also found within the district.

Hatchery spring Chinook Salmon, Summer Steelhead, and Rainbow Trout are released in various streams and rivers within the district. In addition, Rainbow, Cutthroat, and Brook trout are released into several high lakes in the Cascade Mountain Range which provide unique, and often remote, fisheries. Spring Chinook Salmon and Bull Trout are federally listed as "Threatened" under the Endangered Species Act.

In addition to salmon and trout, STEP activities regularly monitor and provide benefits to other native fish species. Native sculpins, dace, shiners, suckers, stickleback, and other non-game fish species have been incorporated into sampling projects and educational outreach. Projects that are designed to benefit salmon and trout also benefit resident brook and anadromous Pacific Lamprey, which are a culturally and economically import species to indigenous peoples.

ODFW staff in the Upper Willamette District take a collaborative approach to resource management. Implementation of the STEP program in the Upper Willamette is shared between the STEP Biologist and other district staff. Staff believes that assigning the STEP responsibilities broadly among all members allows greater flexibility and more effective integration of STEP activities throughout all fish management activities. Additionally, many STEP activities would not be possible without collective partnerships with other divisions in ODFW. We would like to recognize the staff at Leaburg Hatchery, McKenzie Hatchery, Willamette Hatchery, and Dexter Ponds for their dedication to working with STEP. Their support and assistance are vital to the success of many projects each year.

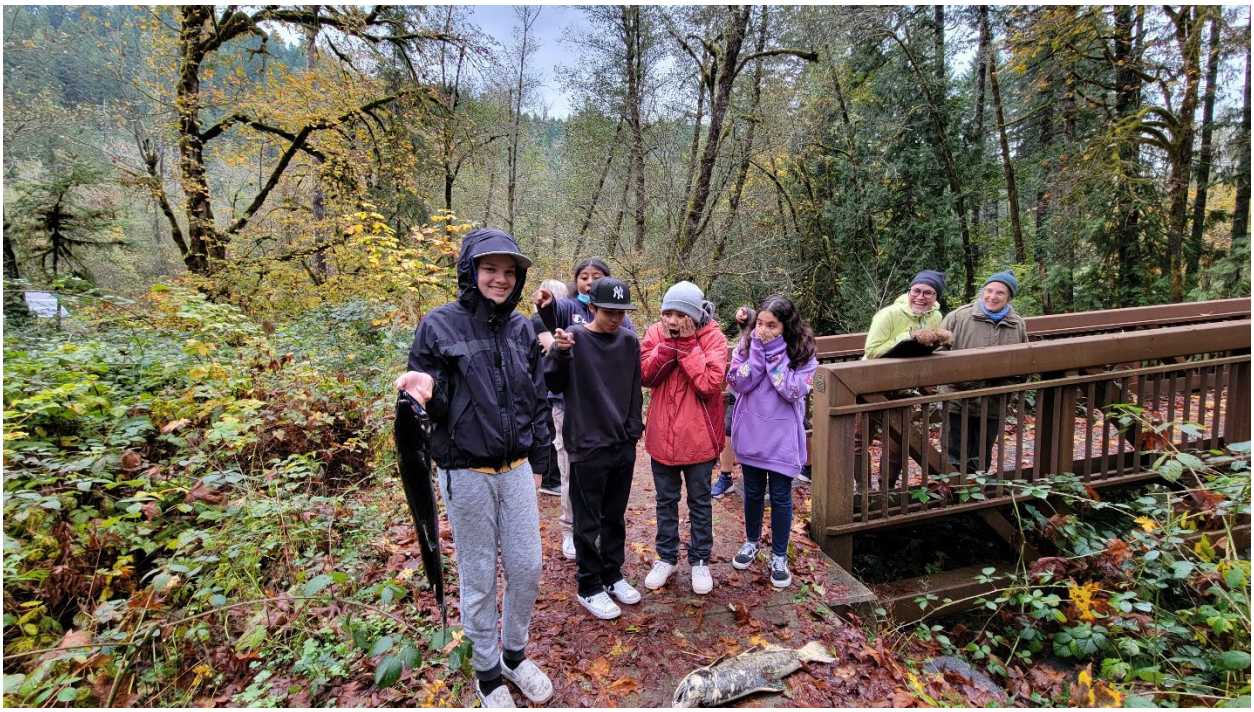
While the STEP volunteer base draws largely from local organizations, including the Cascade Family Flyfishers, McKenzie Flyfishers, Trout Unlimited, Coastal Conservation Association, McKenzie River Guides Association, Backcountry Horsemen, and the three local watershed councils, many of our active STEP volunteers are not affiliated with any group or organization.

Additionally, STEP staff work with industrial timber companies on a variety of habitat evaluation and improvement projects within the district. ODFW staff regularly attend meetings and make presentations to organizations, schools, universities, and other agencies to facilitate the free flow of information, as well as answer questions, solicit ideas for new STEP projects, and recruit additional STEP volunteers.

EDUCATION AND PROGRAM DEVELOPMENT

TECHNICAL ASSISTANCE

The STEP Biologist served on the Salmon Watch Steering Committee in-partnership with the Middle Fork Willamette Watershed Council, provides experiential environmental education to over 1,000 local students each year through the Salmon Watch© program. The Committee consists of representatives from the Bureau of Land Management, U.S. Forest Service, Eugene Water and Electric Board, local school districts and other area organizations.



Whittaker Creek Salmon Watch event

STEP staff provided technical assistance to the Middle Fork Willamette Watershed Council by serving on their Youth Education Committee. This Committee focuses on the development and expansion of place-based environmental education programs. These programs are being implemented in many underserved rural schools.

STEP staff provided technical assistance to McKenzie River Discovery Center in their efforts to restore and repair the old McKenzie Hatchery rearing pond and surrounding property. STEP staff has been involved during the planning process, sediment removal, design, culvert replacement, placement of fishing platforms, boardwalk to connect the north and south side of the pond, and gravity fed pipes. Once the pond is completed it will be used for community fishing events and is ADA accessible. We placed 21 cutthroat trout in the fishing pond during early fall and plan to add some rainbow trout in 2024.

STEP staff served on the Eugene Water and Electric Board (EWEB) Carmen-Smith Fish Working Group, along with other partners from USFWS and NOAA. The purpose of this group is to find temporary solutions to address the lack passage at Trail Bridge Dam for Bull Trout and Spring Chinook Salmon. In addition to

providing technical assistance, staff provided radio telemetry equipment and personnel to assist EWEB with capture, radio tagging and transporting adult Spring Chinook Salmon above Trail Bridge Dam. Staff and volunteers angled for Bull Trout below Trail Bridge Dam, caught Bull Trout were scanned for a PIT tag, if there was no tag present one was inserted into the dorsal sinus of the fish and biological data was collected. Bull Trout were then transported above Trail Bridge Dam and released into the reservoir.

YOUTH FISHING EVENTS

STEP staff and volunteers hosted nine fishing events. STEP events included: Family fishing events which are open to the public: Row River Nature Park, Cottage Grove; two at Alton Baker Park, Eugene. We also hosted a few small private events: Girl Scouts of America Oregon and SW Washington troops for a special fish and fishing event at Leaburg Lake and Hatchery. We partnered with McKenzie River Trust (MRT) to host a fishing event at Green Island near Coburg. Four additional events were organized by other groups where STEP was able provide equipment, advise, and/or fish. River Road Park and Recreation District staff hosted a community fishing event at River Road Park Pool, they also had a free pancake breakfast! Middle Fork Willamette Watershed Council participated at Girl Scout camp near Florence, where they taught the basics of fishing and fish printing to Girl Scouts from SW Washington and Oregon. McKenzie Fly Fishers hosted Sheldon High School Fishing Club for a day of fly fishing on Dexter Reservoir. Each student was paired up with an instructor to receive one-on-one instruction on how to fly fish from a boat. Angler Education instructors and Troop leaders hosted Outdoor Adventure Day at Junction City Ponds for the Scouts of America.

SALMON WATCH

The Middle Fork Willamette Watershed Council organizes most of the Salmon Watch field trips in the Upper Willamette Watershed. The STEP biologists serve as members of the Salmon Watch Steering Committee. November 2022 was filled with Salmon Watch field trips to Whittaker Creek where 4th – 8th grade students from Eugene, Creswell and Pleasant Hill learned about Fall Chinook Salmon life history, habits, and habitats. September of 2023, Springfield area schools usually have field trips to Carmen Smith Spawning Channel, but due to the Lookout Fire and its proximity to the spawning channel the MFWWC made the decision to host Salmon Watch at Elijah Bristow State Park (EBSP). Even though salmon are not present at EBSP it provided the perfect opportunity to talk about why salmon are not there, and the habitat work that is ongoing and how it will benefit all fish (including salmon) in the future. Students still had a great time learning about Spring Chinook Salmon, and thanks to McKenzie Hatchery for donating three Spring Chinook Salmon carcasses, a buck, a hen, and a jack! The students enjoyed learning about how sneaky those little jacks really are.

OUTDOOR SCHOOL, SUMMER, AND DAY CAMPS (11 events)

STEP Biologist attended Forest Field Days hosted by “Forest, Today and Forever” at Bauman Tree Farm near Veneta. Students who attend camp learn about a variety of topics: fish passage, firefighting, water quality, animal tracks and scat, tree farm harvesting, and plant identification.

Fish dissections, fish printing, fish biology and of course fishing techniques were taught to grade school students at various camps. In 2022-2023, STEP partnered with Lowell Summer Camp, Pleasant Hill Outdoor School, Oakridge Summer Camp and Willamette Hatchery to provide these opportunities to kids.

PUBLIC EDUCATION (8 events)

STEP biologists gave several presentations to diverse audiences and participated in several community events including:

1. Scouts of America, Troop 100
    - Fishing Merit Badge presentation
2. Coast Fork Willamette Watershed Council – monthly meeting "Science on Tap"
    - Volunteer opportunities and District updates presentation
3. Girl Scouts of America – STEM Day
    - Career and Volunteer opportunities with ODFW
4. WREN (Willamette Resources and Educational Network) – Wetland Wander Walk
    - Salmon Watch for adults on the Upper McKenzie River
5. Bridgeway House
    - Salmon Biology
6. Cottage Grove High School
    - Career Fair Natural Resources Panel Q & A
7. Nature your way – McKenzie River Trust (2 events)
    - Hands-on learning about fish and fishing for adults with different abilities and those who haven't felt safe or welcome in outdoor spaces.
8. Willamette River Festival – Willamette River Keepers
    - Fly-casting taught by an ODFW Angler Ed instructor.
9. Rasor Park Festival – Friends of Rasor Park
    - Hands-on learning about fish and macro-invertebrates in the Willamette River taught by an ODFW Angler Ed instructor.

FUNDS AWARDED FOR ACCESS AND EDUCATION IMPROVEMENTS IN THE SOUTH WILLAMETTE WATERSHED DISTRICT

$861.65 STAC mini-grant was awarded to Middle Fork Willamette Watershed Council to purchase "Guide to Pacific NW Aquatic Invertebrates" for students within the Upper Willamette Watershed that are involved in Salmon Watch, WELL Project (Water, Energy Learning Lab) or other school science programs. Students utilize these guidebooks when they are conducting surveys or identifying macros at Salmon Watch events. Salmon and trout education is intrinsically tied to macroinvertebrate education, and when the proper identification tools are accessible students can learn more.

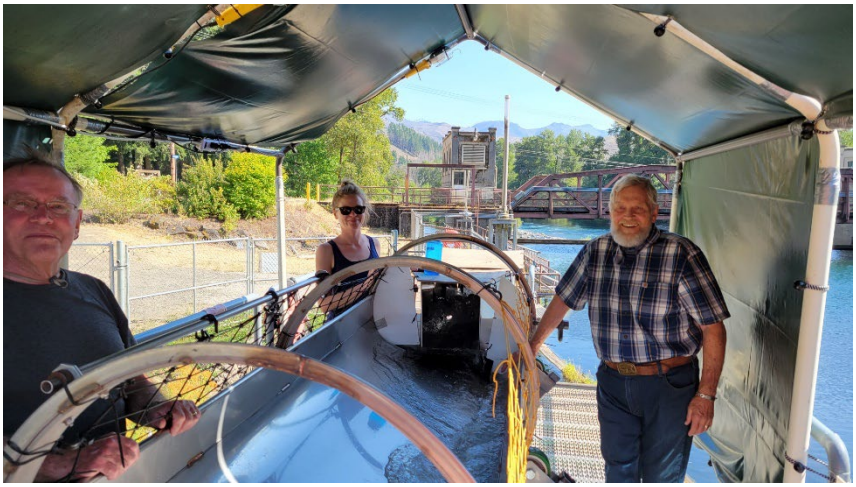
$1139.97 STAC mini-grant was awarded to Upper Willamette STEP to purchase an upgraded projector for outdoor use and a smaller travel sized screen. We have several presentations that are outdoors or in poorly lit rooms, so the higher lumens in the projector are incredibly helpful. Also having a smaller travel sized screen has been a game changer in small rooms.

INVENTORY AND MONITORING

LEABURG FISH SORTER

In 2020, District staff designed and installed an adult fish sorter on the left-bank fish ladder above Leaburg Dam using an Alaskan steep-pass fish ladder and a watered "tilt table". The sorter was designed to collect McKenzie Hatchery broodstock and remove hatchery fish from the river, and to allow wild Chinook Salmon to pass upstream with minimal exposure to handling stress. This project was funded under contract from U.S. Army Corps of Engineers; Additionally, we were able to hire four seasonal staff to operate the sorter seven days a week during the peak of the run. Our seasonal staff trained and worked with volunteers who were happy to see (but not touch) adult Chinook Salmon.

Staff and volunteers passed 1,647 unmarked Spring Chinook Salmon and removed 389 hatchery Spring Chinook Salmon for McKenzie Hatchery broodstock at the fish sorter. Additionally, 15 Bull Trout were collected at the sorter, but before they were passed upstream, we collected biological samples, data and inserted a PIT (Passive Integrated Transponder) tag in their dorsal sinus.



Leaburg Fish Sorter

BULL TROUT EDNA SURVEYS

We met with members of McKenzie Fly Fishers (MFF) to discuss and plan eDNA sampling for Bull Trout and Brook Trout in the Upper Willamette Watershed. The MFF conducted sampling at 29 sites in the Middle Fork Willamette River and its tributaries (Mainstem Middle Fork, above Hills Creek Reservoir, North Fork Middle Fork, Salt Creek, and Salmon Creek. The samples are currently stored at the USFS Middle Fork Ranger Station and will be sent to USFS Rocky Mountain Research Station in Montana for analysis later this year. The results will contribute to the knowledge of the Bull Trout Working Group and be recorded into national database on Bull Trout. Sampling continued into October in the McKenzie River and its tributaries.

GOLD LAKE SAMPLING

The STEP Biologist worked with the McKenzie Fly Fishers (MFF) to sample Gold Lake for Rainbow and Brook Trout. The objective is to monitor trout populations through hook-and-line sampling, all Rainbow Trout

caught are counted and measured and released unharmed. Brook Trout are caught, measured, and all legal sized trout are removed.

HABITAT IMPROVEMENT

PARTNERSHIPS AND TECHNICAL ASSISTANCE

STEP staff provided technical input to partner agencies and non-governmental organizations on the benefits to fish of several additional proposed restoration projects and land acquisitions.

The STEP Biologist provided technical assistance to the Coast Fork Willamette (Perkins Creek Culver grant), Middle Fork Willamette and State Parks (Elijah Bristow), McKenzie River Trust (McKenzie Discovery Center) and McKenzie (Finn Rock, Gate Creek, South Fork McKenzie Phase II) Watershed Council's Technical Committees tasked with providing biological feedback on restoration and monitoring (post restoration) projects sponsored by the Councils. The STEP Biologist provides technical assistance to private landowners regarding small restoration projects.

INVASIVE SPECIES REMOVAL

STEP biologist and volunteers from Cascade Family Flyfishers worked to remove invasive blackberries and Eurasian Water Milfoil from Row River Nature Park Pond, Cottage Grove. We hold a family fishing event here every April and this work opened many more spots for anglers to access the pond. This park and pond are heavily utilized by the residents of Cottage Grove, as it is located within the city limits and is easily accessible for all people.

FISH CARCASS PLACEMENT

STEP biologists and volunteers from Coastal Conservation Association, Springfield High School, and public assisted staff with nutrient enrichment. Spring Chinook Salmon carcasses from Willamette and McKenzie hatcheries were placed in the Upper Willamette Watershed.

Nutrient enrichment occurred in September; carcasses were distributed in:

McKenzie River:
Finn Rock reach of the McKenzie River, South Fork McKenzie River, Lower Deer, Quartz, North and South Fork Gate creeks

Middle Fork Willamette River:
Little Fall Creek, North Fork Middle Fork Willamette River, and above Hills Creek Reservoir

Coast Fork Willamette:
Mosby Creek

KEEP OREGON RIVERS CLEAN (KORC) FISHING LINE COLLECTION STATIONS

Beginning in 2020, volunteers from fishing groups, Scouts of America and members of the public concerned with litter have installed and maintained 18 fishing line collection stations. We are always looking to add more stations. Our 18 stations are located:

McKenzie River:

Armitage x2, Hendricks Wayside and Leaburg x2

Willamette River:
Beltline Boat Landing

Middle Fork Willamette River:
Alton Baker Park x3, Clearwater Park, Hemlock, Pengra Landing, Dexter Dam x3, Lowell Covered Bridge and Greenwaters Park.

Fish Culture

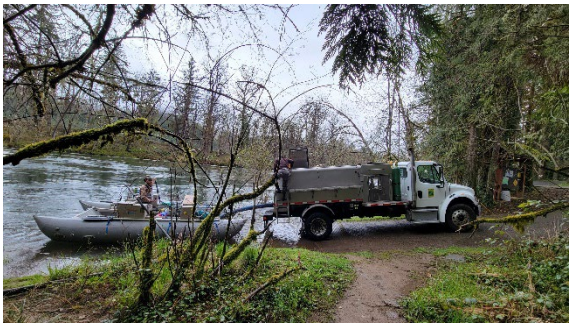
FISH EGGS-TO-FRY PROGRAM

Approximately 11,700 spring Chinook Salmon eggs were incubated in aquariums in 116 different classrooms as part of the Eggs-to-Fry Program. All unfed fry were released during December, primarily in the Alton Baker Canoe Canal which is part of the Middle Fork Willamette River in Eugene. McKenzie schools released their fish near Blue River in the McKenzie River.

MCKENZIE RIVER RAFT STOCKING

For the past 73 years, the Oregon Department of Fish and Wildlife has used volunteers to distribute hatchery trout evenly along the stocked segments of the McKenzie River.

STEP staff coordinate this program with the McKenzie River Guides Association (MRGA) who release trout from our customized fish stocking raft. As far as we know, this is the only stocking program of its kind in Oregon. This year we released 78,164 legal sized Rainbow Trout into the McKenzie River which is a slight increase from 2022.



Raft Stocking

HIGH CASCADE LAKES BACKPACK STOCKING

This popular program provides an opportunity for volunteers to transport and release fingerling trout into high lakes of the Cascade Mountains using backpacks. This program heavily supports ODFW's mission statement and strongly supports the agency's R3 Mission for recruiting, retaining, and reactivating volunteers.

In 2023, we conducted high lakes stocking using helicopters. Air stocking occurred in July, we stocked 52,762 Rainbow and 26,363 Brook trout into high Cascade lakes. Additionally, staff stocked 758 Rainbow Trout by truck. Planning for 2024 has already begun and we're looking forward to fun-filled, albeit busy season of high lakes stocking using volunteers.

SCHOOLS AND GROUPS THAT WORK WITH THE UPPER-WILLAMETTE STEP

The following is a partial list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Education cont.**
Adams Elementary School, Eugene	University of Oregon
Agnes Stewart Middle School, Springfield	Willagillespie, Eugene
Arts & Technology Academy at Jefferson, Eugene	Willamette High School, Eugene
Awbrey Park Elementary School, Eugene	Yujin Gakuen Elementary School, Eugene
Bailey Hill Instructional Center, Eugene	**Organizations**
Buena Vista Elementary School, Eugene	American Fisheries Society
Bridgeway House- Eugene	Arc of Lane County
Camas Ridge Elementary School, Eugene	Cascade Family Flyfishers
Cascade Middle School, Eugene	Coast Fork Willamette Watershed Council
Centennial Elementary School, Springfield	Coastal Conservation Association
Cesar E. Chavez Elementary School, Eugene	Cumulus Media Group
Charlemagne at Fox Hollow Elementary School, Eugene	Desert Springs Trout Farm
Chinese Immersion School, Eugene	Emerald Empire Chapter ANWS
Coburg Community Charter School, Eugene	Girl Scouts of Oregon & Southwest Washington
Corridor Elementary School, Eugene	McKenzie Flyfishers
Cottage Grove High School, Cottage Grove	McKenzie River Guides Association
Early College & Career Options High School, Eugene	McKenzie River Trust
Edgewood Elementary, Eugene	McKenzie Watershed Council
Edison Elementary School, Eugene	Middle Fork Willamette Watershed Council
Family School, Eugene	Oregon Environmental Literacy Program
Gateway Elementary, Eugene	Scouts of America
Holt Elementary School, Eugene	The Nature Conservancy
Howard Elementary School, Eugene	Travel Lane County
Kalapuya High School, Eugene	Weyerhaeuser Company
Lane Community College	World Salmon Council
Laurel Elementary School, Junction City	
Lowell Elementary, Lowell	**Government**
McCornack Elementary School, Eugene	Bureau of Land Management
McKenzie Middle School, Blue River	City of Eugene
Meadow View Elementary School, Eugene	City of Springfield
Oakhill School, Eugene	Confederated Tribes of Grand Ronde
Oakridge Elementary School, Oakridge	Eugene Water & Electric Board
Oregon State University	Lane County
Pleasant Hill Elementary, Pleasant Hill	Nez Perce Tribe
Pleasant Hill High School, Pleasant Hill	Oregon State Parks Department
Prairie Mountain School, Eugene	Oregon State Police
Ridgeline Montessori, Eugene	U.S. Army Corps of Engineers
Ridgeview Elementary School, Springfield	U.S. Fish & Wildlife Service
River Road El Camino Del Rio Elementary School, Eugene	U.S. Forest Service
Shasta Middle School, Eugene	Willamalane Park & Recreation District
South Eugene High School, Eugene	Lane County CTE
Thurston Elementary School, Springfield	Lane County ESD

NORTH COAST STEP

Ron Rehn, STEP Biologist

Mike Sinnott, Assistant District Fish Biologist

Robert Bradley, District Fish Biologist

The North Coast STEP area includes the coastal basins extending from Neskowin Creek north to the Columbia River, and from the Lower Columbia River tributaries to Hunt Creek. The North Coast STEP District covers all of Tillamook and Clatsop Counties, and portions of Columbia, Washington, Yamhill, and Polk Counties. This area holds 15 major river systems and over 2,600 stream miles.

All District fish management staff work with STEP volunteers, but the STEP Biologist has primary responsibility for administering, coordinating, and reporting program activities. Projects are identified and guided by local fish management and hatchery needs with a focus on outreach, habitat restoration, and fish propagation efforts.

Volunteer groups in the area have a high interest in fish culture programs. STEP volunteers operate two fish rearing facilities and one acclimation pond, collect wild broodstock, and they provide key support to several ODFW hatcheries. There are two high schools in the district with hatchery programs. Students in these programs also provide support assisting at ODFW hatcheries, the Stream Enrichment Program, and monitoring. The area also has a growing classroom egg incubation program involving students from seven school districts. Staff works closely with several watershed councils, educators, angling groups, and civic organizations throughout the district.

EDUCATION AND PROGRAM DEVELOPMENT

SALMON WATCH

The STEP Biologist position participated Vernonia Schools Salmon Watch field trip. 41 people participated in this event. Multiple resource agencies and environmental non-profits participate. STEP Biologist provides Coho Salmon carcasses for dissection in addition to visual aids for instruction on salmon biology, life history, habitat requirements, and resource management. Following dissections carcasses are used in the Stream Enrichment Program as identified under Objective 8 in Habitat Section. SFR funding directly supports the STEP Biologist personnel and S&S on this grant which provides technical assistance and direct involvement. SFR funds are used to purchase materials associated with this program.

AQUATIC EDUCATION

The Tillamook County Children's Clean Water Festival is a day-long event in which every fourth grader in Tillamook County participates in activities and hands-on interactive displays pertaining to overall watershed health. The Salmon Watch and Clean Water Festival events had 361students that participated in this event.

FISH DISSECTIONS

The STEP Biologist conducts classroom dissection events in district schools. The STEP biologist provides hatchery Coho Salmon carcasses from either NF Nehalem or Trask Hatchery for use in dissections. Following dissections fish are disposed in streams of their respective basins as part of the Stream Enrichment Program as provided in the Trask Hatchery Coho Program HGMP and Nehalem Hatchery Coho Program HGMP. Students learn about the anatomy and physiology of fish, how they survive in their environments, habitat requirements, and relationships to human biology. The STEP Biologist supplies the fish, dissection equipment, and educational support material for the events. Volunteers may assist the STEP Biologist with this event. SFR funding directly supports the STEP biologist's time/vehicle usage, educational supplies for classes (dissections materials: scissors, gloves), refreshments for volunteers, and volunteer appreciation awards.

FISH PRINTING

The STEP Biologist conducted Fish Printing activities in district schools. This is done at the elementary level to introduce young students to different types of fish and start basic aquatic education.

FISH EGGS-TO-FRY PROGRAM

Annually, the STEP biologist position works with about 13 schools however participation has not returned to pre-Covid 19 levels. The STEP biologist administers the application process for teachers, writes emails, meets with teachers, schedules associated meetings/trainings, and field trips or classroom presentations. The STEP biologist provides tank sets and Egg to Fry supplies to classrooms and may assist with assembling the incubator, providing educational materials to teachers, coordinating egg deliveries with volunteers, or delivering eggs. The STEP Biologist may spend time with the class instructing students in aquatic ecology, and leading class activities using kits purchased with SFR funds, leading a dissection, or assisting with the fry release. Students may be provided with educational materials (coloring books, stickers, and course materials) purchased with SFR Funds. Funds may be used to purchase aquariums, chillers, or related hardware for the project.

Winter Steelhead - Eggs were provided to 1 school (2-classrooms), and The Tillamook Forest Center. Eggs came from Big Creek and Trask Hatcheries. Resulting unfed fry were released into Big Creek and Jones in accordance with Hatchery HGMP's.

Fall Chinook - Eggs from Trask and Cedar Hatcheries were provided to 3 schools. Resulting unfed fry were released into the Necanicum and Nestucca Rivers in accordance with the Hatchery HGM's.

Spring Chinook – Eggs from Trask Hatchery were provided to 2 public libraries, 1 school, and the Tillamook Forest Center. Resulting unfed fry were released into local streams in accordance with Hatchery HGMP.

IMPROVEMENTS TO ACCESS AND FACILITIES

During this report period the following grants were awarded to improve access and facilities in the North Coast District:

- $181,431.00 grant from ODFW Restoration and Enhancement Fund to remodel Astoria High School fish hatchery facility.
- $1,250.00 grant from North Coast Salmon & Steelhead Enhancement Fund, Inc. to purchase tanks and pumps for Wild Broodstock Program.

- $200.00 grant from North Coast Salmon & Steelhead Enhancement Fund, Inc. to purchase pughs for Stream Enrichment Program.
- $1,550.00 grant from ODFW STAC mini-grant to purchase trash pump for Rhoades Pond rearing facility.
- $3,215.75 emergency grant from ODFW Restoration and Enhancement Fund to repair Tillamook Tidewater Barrier Free Fishing Pier.
- $18,000.00 grant from ODFW Restoration and Enhancement Fund to expand rainwater collection system for Warrenton High School Fish Hatchery.
- $4,196.25 grant from North Coast Salmon & Steelhead Enhancement Fund, Inc. to purchase and install feed shed for Rhoades Pond rearing facility.

Routine maintenance continues annually on fish ladders, fishing access sites, docks, boat ramps, and boat slides. Access site and ramps maintenance included brush clearing and removal (mostly weed eating). The boat slide maintenance included replacement of broken or rotten wood supports or runners, and control of undermining on existing structures as needed. Fish ladders maintenance included removal of wood and logs. Dock maintenance included some weed eating and a transition ramp replacement. USFWS funds are used for staff time and travel or routine maintenance, not any new ground disturbance on these maintenance projects.

North Coast STEP program is continuing work on the development of the Astoria High School Fish Hatchery remodel, the STEP biologist is providing technical assistance as needed.

Inventory and Monitoring

Spawning and Temperature Monitoring

The Salmonberry Monitoring Project continues to provide valuable data through winter steelhead spawning surveys and temperature and macroinvertebrate monitoring on the Salmonberry River. This information is utilized by ODFW and many other resource groups and agencies. Headed by Ian Fergusson, the Salmonberry STEP Monitoring Project has utilized volunteers from AmeriCorps, Clark-Skamania Flyfishers, Native Fish Society, Northwest Steelheaders, Oregon Trout, Sierra Club, and Trout Unlimited since 1993 to carry out these monitoring projects. Due to COVID-19 restrictions, the number of volunteers used in this project was reduced. 13 volunteers from the Salmonberry STEP Monitoring Project donated 228 hours last year conducting spawning ground surveys and temperature monitoring on 12 miles of stream.

The North Coast STEP Biologist assisted with data collection for the following projects:

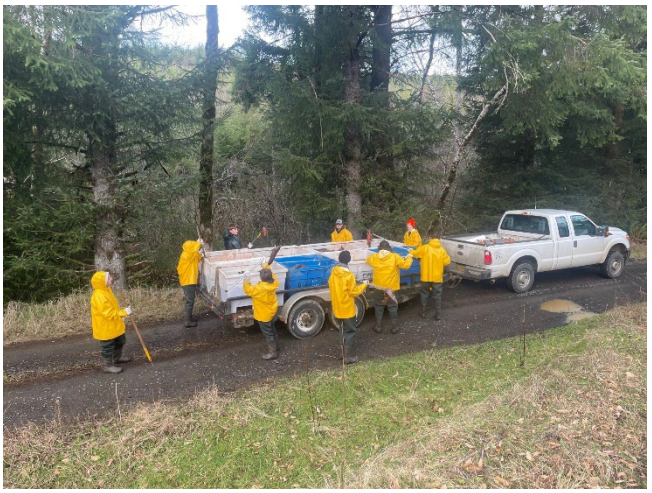
Chinook Salmon DNA Sampling (ODFW).

Spring Chinook Salmon Spawning Grounds Surveys.

Habitat Improvement

Stream Nutrient Enrichment

As part of the ODFW stream nutrient enrichment program the STEP Biologist and other NCWD staff assisted in the distribution of 13,761 salmonid carcasses into 77 miles of North Coast rivers and streams from the Little Nestucca to the lower Columbia River tributaries to benefit salmonids and other species. Nine students from the Astoria High School Fisheries Class, 6 from Warrenton High School Fisheries Class, and 14volunteers from Association of Northwest Steelheaders Tualatin Chapter assisted with some of these placements donating a total of 124 hours.



Volunteers placing fish carcasses.

Fish Culture

Volunteer Hatchery Programs

The Tillamook Anglers continue to operate Whiskey Creek STEP Hatchery and reared 105,675 spring Chinook Salmon smolts for release into the Trask River. During the 2022-23 return season the Tillamook Anglers processed 477 surplus hatchery salmon totaling 3,042.82 pounds of surplus salmon for the Oregon Food Bank. The Nestucca Anglers also continue to operate Rhoades Pond and released 110,075. fall Chinook Salmon smolts into Three Rivers and the Nestucca River. Both facilities are now back to pre-covid operations. The Nestucca Anglers had 439 volunteers donating 2,588 hours toward hatchery operations and miscellaneous events, and the Tillamook Anglers had 327 donating 3,523 hours.

Wild Winter Steelhead Broodstock Collection Programs continued on the Nestucca, North Fork Nehalem, and Wilson Rivers. These programs collected 408 fish for use as broodstock by ODFW hatcheries. For the wild fall Chinook Salmon on the Nestucca River 22 fish were collected by anglers with remaining fish coming from the Cedar Cr. Hatchery trap. The Tillamook Basin wild Coho Salmon program collected 58 fish by means of angling, trap, or tangle net for use as broodstock. 54 fish were collected on the North Fork Nehalem via angling or trap. STEP provides management oversight, technical assistance, and direct involvement to these programs.

High School Hatcheries

Astoria High School's hatchery program released 5,802 Coho Salmon as pre-smolts into Young's Bay, and 19,537 fall Chinook Salmon pre-smolts into Cullaby Lake. Warrenton High School's program released 3,478 Coho Salmon, 345 winter steelhead pre-smolts into the Skipanon River, and 16,543 fall Chinook Salmon pre-smolts into Cullaby Lake.

SCHOOLS AND GROUPS THAT WORK WITH NORTH COAST STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Organizations**
Astoria High School, Astoria	Lower Nehalem Watershed Council
Broadway Middle School, Seaside	Necanicum Watershed Council
East Elementary School, Tillamook	Nestucca Anglers
Garibaldi Grade School, Garibaldi	Nestucca Watershed Council
Hilda Lahti Elementary School, Astoria	Nicolai-Wickiup Watershed Council
Jewell Elementary School, Seaside	North Coast Chapter ANWS
Lewis & Clark Elementary School, Astoria	Rainland Fly Casters
Mist Elementary School, Mist	Rockaway Lions Club
Neah-Kah-Nie Middle School, Rockaway Beach	Skipanon Watershed Council
Nehalem Elementary School, Nehalem	Tillamook Anglers
Neskowin Valley School, Neskowin	Tillamook Estuaries Partnership
Seaside Heights Elementary School, Seaside	Tillamook Forest Center
Tillamook High School, Tillamook	Tualatin Valley Chapter ANWS
Vernonia Schools, Vernonia	Twin Rocks Friends Camp
Warrenton High School, Warrenton	WarHF, Inc
Wilson River School	Youngs Bay Watershed Council
Organizations	**Government**
CREST	Oregon Department of Forestry
Ecola Creek Watershed Council	U.S. Fish & Wildlife Service

MID-COAST STEP

Christine Clapp, STEP Biologist

Dylan O'Keefe, Assistant District Fish Biologist

John Spangler, District Fish Biologist

The Mid Coast STEP District covers coastal watersheds from the Salmon River and Cascade Head to Tahkenitch Lake, extending from headwater streams on the western slope of the Coast Range to their estuaries. This includes the Salmon, Siletz, Yaquina, Alsea, and Siuslaw rivers. Direct ocean tributaries including the Yachats River and Beaver, Big, Tenmile, and Cummins Creeks also support Mid Coast salmonid populations. Siltcoos and Tahkenitch Lakes are two large coastal lakes in the southern Mid Coast that are especially important for Oregon coast Coho Salmon. In addition to Coho Salmon, Mid Coast waters support populations of spring and fall Chinook Salmon, summer and winter steelhead, Chum Salmon, cutthroat trout, and other native non-game fishes. The Siletz River is home to the only native population of summer steelhead that originates in the Oregon coast range.

Christine Clapp has lead responsibility for STEP program activities on the Mid Coast. The Mid Coast program works with volunteer groups, landowners, local schools, non-profit organizations, private industry, watershed councils, and state and federal agencies on a variety of projects focused on education, fisheries management, and watershed conservation. Mid Coast volunteer groups include Florence STEP, the Longview Hills Fishing Club, Central Coast Fly Fishers, Depoe Bay Salmon Enhancement Commission, Alsea Sportsman's Association, Association of Northwest Steelheaders (Emerald Empire and Albany Chapters), Oregon State University's Fish and Wildlife Department, Mount Hood Community College, Boy and Girl Scouts of America, the Angell Job Corps, and others.

Education and outreach are the core of the Mid Coast Salmon and Trout Enhancement Program. Mid Coast STEP also assists with fish population monitoring through the operation of six fish traps and helps with habitat restoration and access projects. The Mid Coast District also includes the Salmon Enhancement Commission's Coho Salmon STEP Program in Depoe Bay, one of the oldest STEP propagation programs in the state. Fish culture programs continue to attract many passionate volunteers who operate small community-driven Coho Salmon projects (Depoe Bay and Florence) as well as winter steelhead propagation programs (Whittaker Creek and Letz Creek) that provide harvest opportunities in the district.

EDUCATION AND PROGRAM DEVELOPMENT

FISH EGGS-TO-FRY PROGRAM

During the spring of 2023, fifty-seven locations participated in the Egg to Fry Program. The Mid Coast Program involves an introductory classroom presentation about Pacific Salmon and their life cycles during egg delivery and a multi-station field trip during fry release that covers fish biology, macroinvertebrates, water quality and habitat.

Volunteers and staff train classroom and field assistants, deliver and maintain equipment, transport eggs, lead presentations and field trips, and coordinate with hatchery staff.

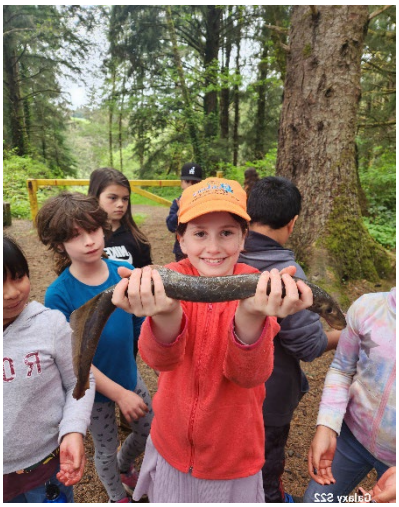
In 2012, the Lincoln County School District adopted the Egg- to-Fry Program as part of their Ocean Literacy Initiative and designated it as core curriculum for all Lincoln County third graders. Mid Coast STEP also loans two Egg-to-Fry libraries to teachers throughout the year, rotating between schools during Egg-to-Fry season. Each library has 8-10 salmon focused kids' books to enrich the program's classroom experience and prepare students for field trips.

FAMILY FISHING

Volunteers and staff led 4 family fishing events on the Mid Coast at Olalla Reservoir, Eckman Lake, Devils Lake, and Cleawox Lake. Mid Coast STEP also managed three youth angling libraries in Lincoln City, Newport, and Waldport where youth can check out fishing equipment for up to two weeks free of charge. ODFW also provided rainbow trout for the annual Siletz Tribe Culture Camp, where youth spend a week each summer learning about their tribal heritage and fishing for trout in the afternoons. In addition, volunteers led backyard bass and lure making activities at family fishing, National Night Out, and Back to School events.

OUTREACH ACTIVITIES

Mid Coast STEP continues to operate the aquatic science reference library containing books about fish biology and ecology, watershed function, stream hydrology and ecology, and fish and macroinvertebrate identification that are available for community education programs. Resources are also available to volunteers who are interested in learning more about freshwater science and salmonids. This year Mid Coast STEP volunteers hosted educational booths for Waldport's Beachcomber Days and the National Night Out in Newport. STEP volunteers also gave presentations to the Central Coast Fly Fishers and Ladies Club of Waldport.



Youth Education

INVENTORY AND MONITORING

POPULATION MONITORING

Volunteers helped monitor fish populations at several fish traps including South Fork Schooner Creek, Munsel, Letz, and Whittaker creeks in the Siuslaw Basin, and Little Woahink Creek trap in the Siltcoos basin. As needed, staff coordinate, train and assist volunteers in fish trap operations including correct fish handling, species and gender identification, accurate data recording, and safety procedures. Trap operations provide essential information on fish returns and stray rates for District management, and volunteers spawn fish at the Whittaker Creek trap for the Siuslaw winter steelhead hatchery program.

SALMON RIVER HATCHERY

Volunteers once again assisted ODFW staff with the adult fish trap at Salmon River Hatchery this fall. Volunteers helped process hatchery fish for donation to food share organizations and assist with spawning operations.

HABITAT IMPROVEMENT

HABITAT IMPROVEMENT

The STEP Biologist continued to manage the Riparian Lands Tax Incentive Program for the Mid Coast, checking compliance of properties, and enrolling new landowners in the program to protect their riparian habitat for the benefit of fish and wildlife. The STEP biologist also completed site visits and monitoring reports for restoration projects funded by the Oregon Watershed Enhancement Board.

Mid Coast STEP volunteers operated 45 SOLV and 15 monofilament line recycling stations throughout the year and organized litter patrols at popular beaches and fishing sites. Volunteers also assisted the Northwest Oregon Restoration Partnership by collecting seeds for their native plant propagation program.

NUTRIENT ENRICHMENT

Winter and summer steelhead, Chinook Salmon, and a few hatchery Coho Salmon were placed in approximately 100 river miles of the Mid Coast District this year including the Salmon, Siletz, Yaquina, Alsea, and Siuslaw river basins.

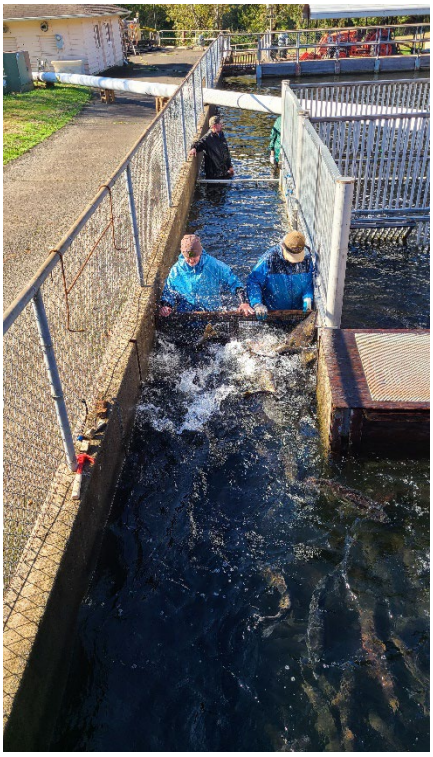
FISH CULTURE

BROODSTOCK COLLECTION

Volunteer anglers assisted with winter steelhead angler-caught broodstock collection programs on the Siletz and Alsea rivers. Trap caught fish were also collected from adult fish traps at Siletz Falls and North Fork Alsea Hatchery by staff and volunteers between December and May. Adult fish from both rivers were spawned at the Alsea Hatchery, and their offspring will be released as smolts next spring. Mid Coast ODFW staff also collected hatchery summer steelhead from the Siletz Falls trap between June and October and transferred them to Cedar Creek Hatchery for spawning.

ODFW staff provided coordination, technical support, and assistance to about 50 volunteers from the Florence STEP Group and Emerald Empire Chapter of ANWS who operate the Siuslaw River winter steelhead hatchery program each year. Volunteers ran adult traps and spawned fish for the upper and lower basin releases. For the lower basin releases at Whittaker and Green creeks (85,000 smolts), ODFW staff and volunteers transported eggs and milt collected by volunteers at the Whittaker fish trap to the Alsea Hatchery for fertilization and incubation.

Hatchery staff then transported those eyed eggs to Roaring River Hatchery for rearing. For the upper basin release at Letz Creek



Salmon River Hatchery

(15,000 smolts), volunteers collect, spawn, fertilize, incubate, and rear fish to smolt stage all at the project site.

FISH ACCLIMATION PROJECTS

Volunteers assisted with several winter steelhead smolt acclimation projects on the Mid Coast. Trapping and acclimation sites are located at Whittaker Creek, Green Creek, Munsel Creek, Letz Creek, and Palmer Creek. The Florence STEP group acclimated winter steelhead smolts at Green Creek and Whittaker Creek this past May. The Emerald Empire Chapter of the Association of Northwest Steelheaders also acclimated and released winter steelhead smolts from the Letz Creek STEP facility in the spring.

NORTH DEPOE BAY CREEK

The Depoe Bay Salmon Enhancement Commission continued to operate a Coho Salmon hatch-box program that receives 20,000 eyed eggs from the Trask Hatchery each year. Eggs incubate in two hatch-boxes along North Depoe Bay Creek before volunteers transport the fry to a net pen in North Depoe Bay Reservoir and feed them until the fin-clipping event in July. After fin-clipping, volunteers release juvenile Coho Salmon into the reservoir at large where they rear over-winter and emigrate from the reservoir volitionally in the spring. The Depoe Bay community supports this program, and youth from the Neighbors for Kids after-school program assist with feeding, monitoring and fin clipping in July, along with many other adult and youth volunteers who attend the annual fin clipping event. In 2023, there were issues with the net pen and all Coho Salmon escaped prior to fin-clipping.

MUNSEL CREEK STEP HATCHERY

Florence STEP volunteers operate a hatchery on Munsel Creek for a small educational Coho Salmon program and to provide eyed winter steelhead eggs for the Siuslaw School District's Egg-to-Fry Program. All other eggs and milt collected from winter steelhead at Whittaker Creek are now transported to Alsea Hatchery for fertilization and incubation. There were issues with Coho Salmon incubation this year, and no parr were released for the Munsel Creek Coho Salmon Program.

SILETZ TRIBE WINTER STEELHEAD PROGRAM

The Siletz Tribe released approximately 5000 winter steelhead into Little Rock Creek this year. Returning adults were captured in an adult trap for the first time this winter and distributed to tribal food share. The program encourages cultural food practices and provides a volunteer opportunity for Siletz Tribal members as well as the public.

SCHOOLS AND GROUPS THAT WORK WITH MID COAST STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	Organizations
Crestview Heights Elementary, Waldport	Camp Florence
Eddyville Charter School, Eddyville	Central Coast Fly Fishers

Florence School District Stream Team	Community Services Consortium
Mt. Hood Community College	Depoe Bay Salmon Enhancement Commission
Neighbors for Kids, Depoe Bay	Driftwood Library
Newport High School, Newport	Emerald Empire Chapter ANWS
Nye Beach Montessori School, Newport	Florence STEP Group
Oceanspray After School Program, Newport	Longview Hills Fishing Club
Oregon Coast Community College	Mid Coast Watershed Council
Oregon State University	Newport Library
	Salmon Drift Creek Watershed Council
Sam Case Elementary, Newport	Salmon Watch
Siletz Valley School, Siletz	SOLVE
Siuslaw Elementary School, Florence	Starker Forests
Taft Elementary School, Lincoln City	
Taft High School, Lincoln City	**Government**
Toledo Elementary School, Toledo	Benton County
Waldport High School, Waldport	Bureau of Land Management
Western Oregon University	Confederated Tribes of Grand Ronde
Yaquina View Elementary School, Newport	Confederated Tribes of Siletz Indians
Organizations	Lane County
Albany Chapter ANWS	Lincoln County
Alsea Sportsman's Association	Lincoln Soil & Water Conservation District
Alsea Watershed Council	NOAA
Angell Job Corps	Oregon Department of Forestry
Baptist Church of Waldport	Oregon Parks & Recreation Department

SOUTHWEST REGION

UMPQUA STEP

Levi Simmons, STEP Biologist

Evan Leonetti, Assistant District Fish Biologist

Greg Huchko, District Fish Biologist

The Umpqua Watershed and STEP area encompasses Douglas County and extends from Diamond Lake in the high Cascades to the Pacific Coast at Reedsport. Douglas County is the fifth largest county in the state. The Umpqua watershed drains 3.2 million acres of land and is the second largest coastal watershed in Oregon. About 90 percent of the land is forested and approximately 51 percent is publicly owned. The area is home to more than 110,000 people with Roseburg having the largest population of more than 20,000.

The Umpqua Basin supports runs of Coho Salmon, spring and fall Chinook Salmon, and winter and summer steelhead. Trout angling opportunities include rainbow trout, tiger trout, brown trout, and brook trout various Cascade lakes. Several reservoirs are stocked with trout and support warm-water fisheries. STEP volunteer opportunities are focused on education, high lakes stocking, and harvest augmentation programs (winter steelhead, Coho Salmon, and fall Chinook Salmon).

The Umpqua Watershed had another successful year with volunteers donating over 7,000 hours. The program completed and/or developed 32 projects this year and reached over 2,500 people with its public outreach efforts alone. Below are highlights for the four main STEP categories.

EDUCATION AND PROGRAM DEVELOPMENT

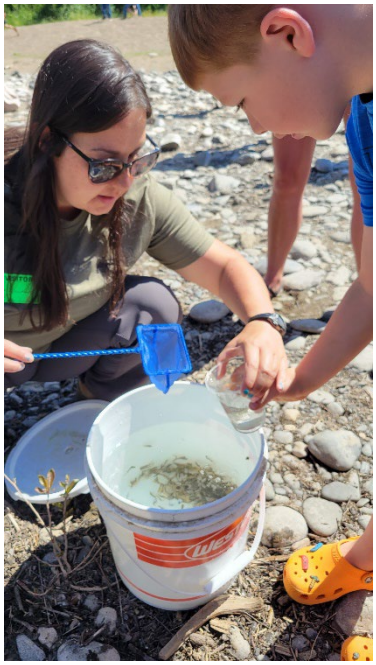
The Umpqua STEP Biologist increased participation in educational and outreach events this year. This year 22 educational events were held, primarily focused on youth. Approximately 300 adults and 1,500 youth were reached during in-person educational activities.

GLIDE FORESTRY TOUR

Around 450 students participated in presentations over three days on invasive species, the effects of fire on aquatic systems, habitat requirements, aquatic food webs, and organism life cycles. Station instructors included representatives from agencies such as Douglas Forest Protection, U.S. Forest Service, Bureau of Land Management, Douglas County, National Oceanic and Atmospheric Administration (NOAA) and Oregon State University.

Eastwood Education Events

Eastwood Elementary reared 1,000 rainbow trout this year which were stocked into a local lake. This was accompanied in lessons on aquatic ecology, life cycles, and habitat requirements for anadromous salmonids. Additionally, Eastwood Elementary hosted two full days of educational opportunities for local students at their "Camp Eastwood" event. The STEP biologist participated in the event by presenting integrated lessons on salmon life cycles, marine derived nutrients, and food webs to around 220 students. This lesson was designed to synergize with the lessons learned during the rearing exercise.



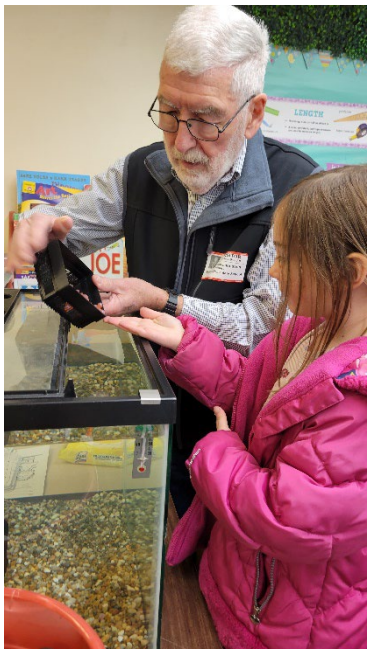
Fry Release

Tsalila Festival

The STEP biologist participated in the Tsalila Festival events over three days and taught around 240 students about angling principles. Students were taught about different gear used for angling and participated in a game designed to teach casting techniques. Partnering organizations include the City of Reedsport, the Umpqua Discovery Center, and U.S. Forest Service.

Fish Eggs to Fry Classroom Incubators

The Partnership for Umpqua Rivers and Umpqua STEP biologist hosted the Egg-to-Fry Program to teach students about native salmonids and their life cycles, habitat requirements and conservation. A total of 31 classrooms reared 3,300 eggs with most receiving in-class lessons and participating in field trips to liberate unfed fry.



Classroom Egg to Fry tank.

Foodbank Subsistence

The Umpqua STEP Biologist worked with the Cow Creek Tribal fish biologists, volunteer groups, and foodbanks to reduce the number of hatchery fish on the spawning grounds while supplying the local community with food-grade salmon. Lower numbers of returning winter steelhead and Coho Salmon resulted in fewer surplus hatchery-origin fish. Still, 22 fish were given to the local foodbanks. This program has been a benefit for those in need in the community as well as facilitating cooperation between agencies.

Inventory and Monitoring

The STEP Biologist coordinated volunteers and ODFW staff in monitoring steelhead, Coho Salmon and fall Chinook Salmon at various trapping locations. This data is used during angling regulation proposal reviews as well as propagation proposals.

COW CREEK COHO SALMON

Volunteers, Douglas County, and STEP monitored returns of adult Coho Salmon to the base of Galesville Dam. Information from the returns fish help inform management of the fishery. Over 500 Coho Salmon adults and jacks were processed this year.

ADULT SALMON MONITORING

Volunteers assisted the Department in monitoring wild steelhead populations in Canyon Creek. Volunteers enumerated and passed wild winter steelhead and removed hatchery fish. This information is used by the ODFW to monitor the hatchery winter steelhead program in the South Umpqua.

SOUTH UMPQUA WINTER STEELHEAD ACCLIMATION TIMING STUDY

Volunteers assisted the Umpqua STEP Biologist with the South Umpqua Winter Steelhead Acclimation Timing Study by collecting snouts from stations and anglers. This year we collected fewer winter steelhead snouts due to lower returns resulting from losses during the Archie Creek fire. This information will be used to better inform management strategies for optimal return to anglers while maintaining a healthy fishery.

HABITAT IMPROVEMENT

CARCASS PLACEMENT

Gardiner-Reedsport-Winchester-Bay STEP participated in the nutrient enrichment program by placing Chinook Salmon carcasses from fall Chinook Salmon spawning events into the North Fork of the Smith River. As a part of the South Umpqua Coho Salmon program, hatchery Coho Salmon were placed by volunteers into areas of upper Cow Creek. Volunteers also assisted with placing hatchery winter steelhead carcasses in the Canyon Creek drainage.

SMALL WOODY DEBRIS PLACEMENT

Oregon Coastal Anglers volunteers, with the assistance of local students, completed a small woody debris placement project. The materials for this program were donated by the local community. The materials consisted of used Christmas trees that would have otherwise ended up being placed in a landfill. This project was designed to enhance the habitat restoration project previously completed in Camp Creek by ODFW, Bureau of Land Management and the Partnership for the Umpqua Rivers

FISH CULTURE

There are six salmon/steelhead/trout hatchery programs in the Umpqua and volunteers are involved in all of them. Volunteers play an important role in the lower Umpqua fall Chinook Salmon program, as well as the South Umpqua Coho Salmon and winter steelhead programs. Volunteers hosted the Canyonville acclimation site, where steelhead are acclimated for two iterations of around two weeks. Gardiner-Reedsport-Winchester-Bay STEP volunteers collected brood, spawned, reared, acclimated, and released fall Chinook Salmon.

Acclimation and Release

Fin Clipping

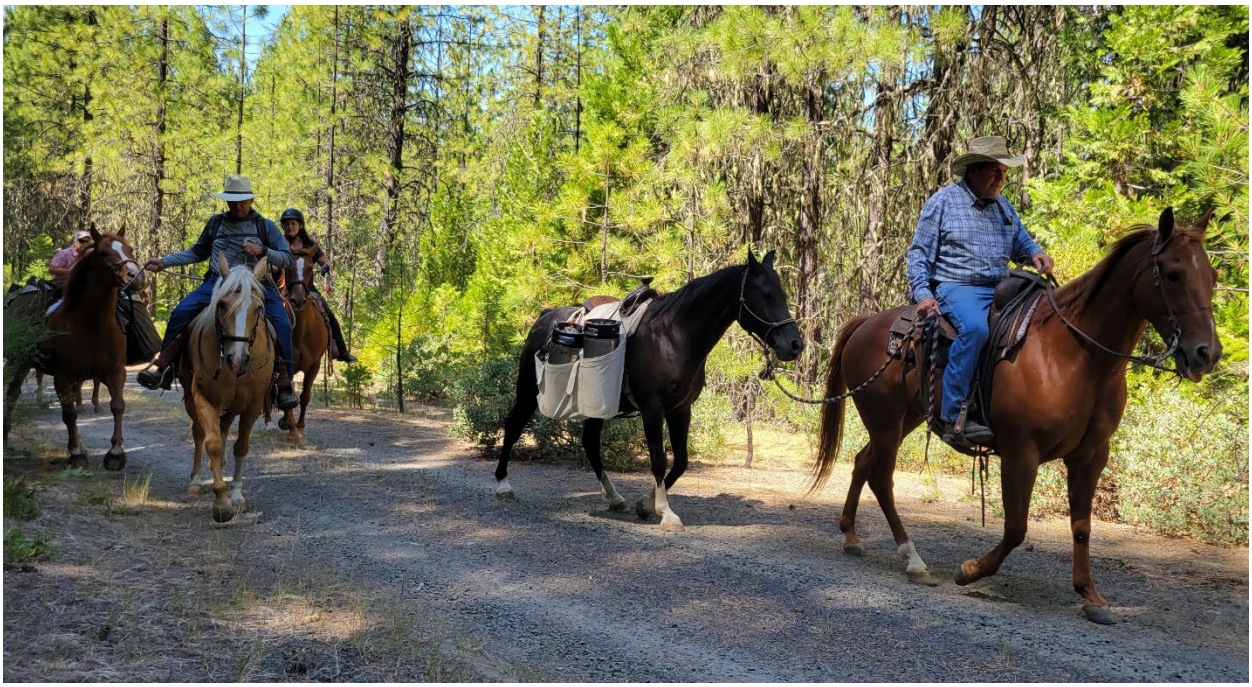
Winter steelhead acclimation and releases took place this year at Canyon Creek and Seven Feather Acclimation sites. These events contribute to winter steelhead angling opportunities in the basin and provide a great educational experience for local students and adults. An educational event at Canyonville was held this year. Around 20,000 winter steelhead were acclimated and released this year.

The Eastwood Elementary School "hatchery" resumed operations this year. Due to reduced availability of winter steelhead smolts, rainbow trout were brought to the school. Students and adults fed the fish seven days a week and monitored the fish's growth and condition. These fish were later stocked into a local lake.

The Gardiner-Reedsport-Winchester-Bay STEP group successfully released around 40,000 fall Chinook Salmon pre-smolts as well as 61,000 smolts this year. This is the largest number of fish released by the group in several years.

High Lakes Fish Stocking

With the help of the Oregon Equestrian Trails group, high elevation lakes were stocked with rainbow trout from the Wizard Falls hatchery. Volunteers successfully stocked eight lakes with around 9,500 trout this year by backpack and horseback.



High Lakes Stocking

SCHOOLS AND GROUPS THAT WORK WITH UMPQUA STEP

The following is a partial list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Government**
Brockway Elementary, Winston	Douglas County
Canyonville Elementary School, Canyonville	Oregon Parks and Recreation
Cobb Street School, Roseburg	Oregon State Police
Eastwood Elementary School, Roseburg	NOAA
Fremont Middle School, Roseburg	U.S. Fish and Wildlife Service
Fullerton IV Elementary School, Roseburg	United States Forest Service
Glendale Elementary School, Glendale	Cow Creek Band of Umpqua Tribe of Indians
Geneva Academy, Roseburg	
Glide Elementary School, Glide	**Organizations**
Highland Elementary School, Reedsport	Partnership for the Umpqua Rivers
Hucrest Elementary School, Roseburg	Smith River Watershed Council
McGovern Elementary School, Winston	Gardiner-Reedsport-Winchester Bay STEP
Melrose Elementary School, Roseburg	Umpqua Fishermen's Association
Myrtle Creek Elementary, Myrtle Creek	Oregon Equestrian Trails
Oregon State University	Umpqua Fisheries Enhancement Derby
Riddle Elementary School, Riddle	Umpqua Guides Association
St. Paul Lutheran School, Roseburg	Umpqua Valley Flyfishers
Tri-City Elementary School, Myrtle Creek	Steamboaters
Umpqua Community College, Winchester	The Bowman Family
Winchester Elementary School, Winchester	Florence STEP
Government	Sportsman's Warehouse
Bureau of Land Management	Oregon Coast Anglers
City of Roseburg	STEAM
City of Canyonville	Project Healing Waters

COOS, COQUILLE, AND TENMILE STEP

Gary Vonderohe, STEP Biologist

Morgan Davies, STEP Biologist

Chris Claire, Assistant District Fish Biologist

Mike Gray, District Fish Biologist

The Coos, Coquille and Tenmile STEP area is located on the southern Oregon coast and is recognized as having been the birth-place of STEP over forty years ago. The area is bordered on the north and east by the Umpqua Basin and by the New, Sixes and Elk Basins to the south. The area holds three major watersheds, the Tenmile, Coos, Coquille, and several smaller streams that flow directly to the ocean. Both the Coos and the Coquille watersheds have long inter-tidal reaches and large estuaries, while the Tenmile is dominated by several large freshwater lakes.

The area program emphasizes citizen involvement with efforts to protect and enhance salmon, steelhead, and trout. Early in the development of STEP, education and outreach became a significant part of the local program, as it was recognized that educating the public and particularly area youth would be important toward achieving the long-term goals of STEP in general. Education through involvement increases awareness of the needs of native fish through habitat recovery and protection efforts. In addition to outreach activities, habitat restoration has been an important part of STEP with the initial habitat projects having taken place before the program was formally established. Large numbers of volunteers continue to be involved in the area's extensive fish culture program that includes broodstock development, spawning, egg incubation, rearing, and acclimation projects.

EDUCATION AND PROGRAM DEVELOPMENT

COQUILLE HIGH SCHOOL EDUCATIONAL HATCHERY

The Coquille High School biology students, teachers and volunteers invest about 400 hours of the school year to ensure the survival and growth into pre-smolts of 5,000 fall Chinook Salmon eggs. The process helps students understand the basic needs for salmonids to live and grow within the artificial environment through direct hands-on work at the hatchery. Work and lessons are expanded to include discussions on the natural limiting factors affecting the wild and hatchery salmon stocks in the nearby creek, local watershed, and ocean environments.

MORGAN CREEK STEP HATCHERY

At Morgan Creek STEP Hatchery fifth graders from North Bend and Coos Bay schools learn the role the local salmon hatcheries play to enhance the fishery while having the chance to participate in hands-on activities that help them understand the benefits of a healthy ecosystem, salmon life-cycle, and habitat conservation.

In the fall, school classes observe, learn, and participate in the entirety of the spawning process. In groups of five, students rotate through five stations where they learn each step of the spawning protocol from experienced volunteers and biologists, as well as leadership, teamwork, and engagement skills.

NOBLE CREEK STEP HATCHERY

Fifth-graders from North Bend and Coos Bay schools and science classes from Bandon High School came to Noble Creek STEP Hatchery to help and learn the protocols, safety, and responsibilities involved in spawning hatchery Chinook Salmon. The STEP Biologist also taught these students about the salmon life cycles and the importance of quality fish habitat.

MILLICOMA INTERPRETIVE CENTER

The Millicoma Interpretive Center continues to be a popular place for student groups and the public to come and learn more about the life histories of salmon and steelhead and habitat through "hands-on" activities. Groups are involved with the collection of broodstock, spawning, egg and fry care, fin-marking, and identifying stream habitat. Through these activities students learn the importance of habitat conservation.

FAMILY FISHING EVENTS

The annual Empire Lake Family Fun Day was held at the end of April in the city of Coos Bay. As part of the event over 4,000 Rainbow Trout were stocked into the lake and participating children learn fishing skills and are loaned a fishing pole equipped to catch the recently stocked trout. Lunch was provided to all participants by a local business. There were also many other family friendly activities available that day.

The STEP Biologist worked with the Coos Bay Fire Department to facilitate the stocking of legal sized Rainbow Trout into portable fire suppression ponds for children to catch as part of the Coos Bay Fourth of July celebration at Mingus Park.

MONITORING

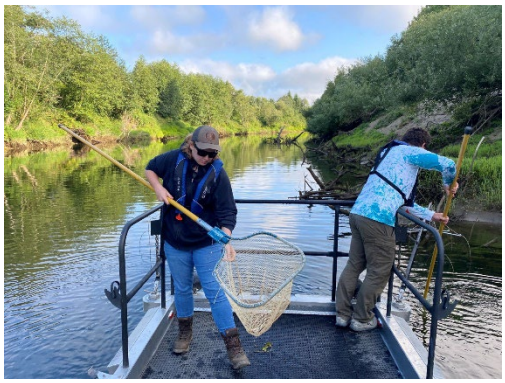
The most important monitoring operation that volunteers are involved with each year is the fall Chinook Salmon recruitment surveys that are conducted in the Coos and Coquille River estuaries. In the Coos River Basin volunteers have a target release of two-million Chinook Salmon juveniles annually. With the large numbers of fish released, an evaluation of the impacts on wild Chinook Salmon is needed. One way to measure the impacts is to monitor the growth and abundance of Chinook Salmon in the estuary.

With the number of juvenile Chinook Salmon collected in the Coos Basin, the STEP Biologist has been estimating the total number of juvenile Chinook Salmon in the basin using a mark/recapture estimate. This monitoring begins in the spring and continues through the fall of the year. Volunteers in the STEP program play a key role with assistance conducting surveys for this long-term monitoring project.

Habitat Improvements

Fish Carcass Placement

Salmon carcasses were again placed in numerous district streams during the report period. ODFW staff and volunteers placed over 4,500 salmonid carcasses and over 190 steelhead carcasses into 6 different streams. These carcasses were from fish returning to Coos Basin STEP facilities.



Invasive species removal

Invasive Species Removal

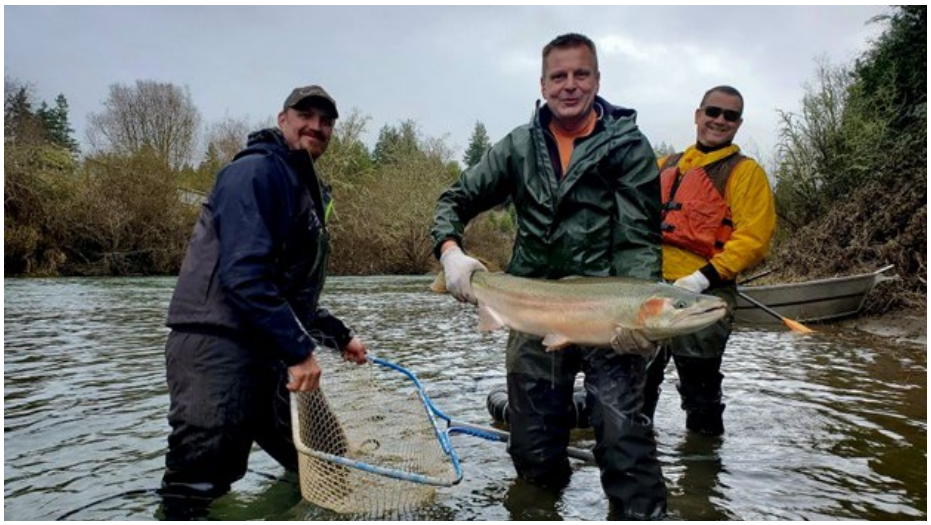
Starting in 2020 ODFW staff and volunteers have dedicated significant time during the summer months to smallmouth bass removal in the Coquille Basin. The main method of removal has been boat mounted electro-fishing.

Fish Culture

Large numbers of volunteer hours continue to come from the extensive fish cultural programs in the District. There are four spawning, four egg-incubation, four rearing, and fourteen acclimation projects in the District.

Broodstock Collection

Broodstock collection and development programs in the district continue to be a success overall. Volunteers involved in the collection of naturally produced salmon and steelhead for incorporation into hatchery programs donated a significant amount of time. Due to low flows in many streams, volunteers have also helped the STEP biologist collect returning hatchery fish that could not quite swim into facilities. The collection of naturally and hatchery produced salmonids is always very labor intensive.



Broodstock Collection

FRY RELEASES

The District STEP Biologist coordinated the collection and distribution of salmon eggs from ODFW hatcheries or STEP incubation facilities to volunteers.

PRE-SMOLT RELEASES

Large numbers of Chinook Salmon pre-smolts are released in the Coos River Basin. The premise behind the releases is the recognized limitation of spawning habitat in the Coos Watershed that is available for Chinook Salmon. Spawning habitat in the Coos River began to be compromised in 1887 when the practice of splash-damming rivers started.

Splash-damming was a process by which logging companies ran logs down the rivers during freshet events with the use of a large dam that was removed at a designated time. Prior to running logs down the river, logs and rocks that provided critical stream habitat were removed. This activity removed the river gravel that Chinook Salmon needed for spawning. The Chinook Salmon pre-smolt program in the Coos addresses the limited spawning habitat by producing large numbers of juveniles to utilize the Coos estuary. Coastal fall Chinook Salmon rear almost extensively in coastal estuaries and the Coos estuary is the largest in Oregon. Just over 1,500,000 Chinook Salmon pre-smolts were released into the Coos Basin in the spring of 2023. Most of the Chinook Salmon that were released in the Coos River Basin in the spring of 2023 were fin clipped. The addition of the auto-mark trailer was a significant help in achieving the near 100% fin-marking rate. The auto-mark trailer marked nearly all the Chinook Salmon at Noble Creek STEP Hatchery and Morgan Creek STEP Hatchery.

Since 2007, Chinook Salmon have been released into the Fourth Creek Reservoir as part of a cooperative partnership with the Coquille Indian Tribe. This year these fish were reared at Millicoma Interpretive Center and then acclimated in an alcove of the reservoir. A blocking weir was constructed to prevent the juvenile Chinook Salmon from entering the reservoir proper. The acclimation this year was a success. The fish held and fed well in the rearing area then left the reservoir in a timely manner.

FISH EGGS-TO-FRY PROGRAM

Fourteen classroom incubators were operated at twelve different schools. During delivery of the eggs STEP Biologists give a brief introduction to salmon ecology and life history. Teachers talked to the students about the release of the salmon fry into nearby streams and learned about the habitat needed for fry to grow, migrate to the bays and ocean, as well as the perils that salmon encounter throughout their lifecycle and the returning journey to the spawning grounds. These lessons further impart resource ownership to the children.

REARING AND ACCLIMATION

STEP volunteers operated a total of fourteen rearing or acclimation projects during the report period. Acclimation sites continue to be improved with each passing year. These projects take a considerable amount of volunteer and staff time along with financial resources to operate.

SCHOOLS AND GROUPS THAT WORK WITH COOS, COQUILLE, & TENMILE STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that work with STEP during 2022-23. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Education**
	Oregon Institute of Marine Biology
Blossom Gulch Elementary School, Coos Bay	
Coos Bay School District	Powers Elementary School, Powers
Riverview Christian School	
Coquille Valley Elementary School, Coquille	Sunset Middle School, Coos Bay
Harbor Middle School, Bandon	**Organizations**
Hillcrest Elementary School, North Bend	
Lighthouse School, Coos Bay	
Lincoln Elementary School, Coquille	Coos River STEP, Coos Bay
Madison Elementary School, Coos Bay	Coos County STEP Commission, Coos Bay
	Coquille River STEP, Coquille
Millicoma Intermediate School, Coos Bay	Eel-Tenmile STEP, Lakeside
Myrtlecrest Elementary School, Myrtle Point	South Coast Anglers STEP, Coos Bay
North Bay Elementary School, North Bend	

LOWER ROGUE STEP

John Weber, STEP Biologist

Laura Green, Assistant District Fish Biologist

Steve Mazur, District Fish Biologist

The Lower Rogue Watershed District is part of the Rogue Watershed District. The Lower Rogue Watershed District includes coastal basins from Four Mile Creek south to the California border. New River, Elk and Sixes Rivers, Euchre Creek, Rogue River, and other miscellaneous coastal tributaries are included in this district.

The focus of the STEP program within the District is to utilize volunteer resources to accomplish management objectives. The STEP Biologist works primarily with local clubs, landowners, timber companies, watershed councils, educators, and school groups. Many volunteers that engage in STEP activities in this watershed district belong to one of two local STEP groups: Oregon South Coast Fisherman (OSCF) or Curry Anadromous Fishermen (CAF).

The groups consist primarily of retired individuals interested in performing meaningful work that will help restore and maintain fish populations within local watersheds.

The CAF's primary focus is aquaculture and education while the OSCF's focus is on population monitoring, broodstock collection, and habitat restoration. All groups consider fishery education a high priority and often cooperate with other local entities to accomplish common objectives.

The Oregon Fish and Wildlife Commission adopted the Rogue Fall Chinook Species Management Unit (SMU) Conservation Plan and Rogue-South Coast Multi-Species Conservation and Management Plan (RSP). The Plans set conservation criteria and desired status goals for salmonid population in the Rogue Watershed. These Plans were developed by ODFW in collaboration with multiple government agencies and a public advisory committee. Many of the monitoring projects that STEP volunteers participate in (within the Lower Rogue Watershed District) are defined management strategies embedded in the Plans. The culmination of the Plans has focused the STEP groups on fishery management in the District.

Volunteers participated in projects associated with fish culture, habitat restoration, and population monitoring. Fish culture and population monitoring comprise most of the volunteer effort.

Education and Program Development

Program outreach news releases were written for local newspapers, radio, and TV stations. The objective was to recruit volunteer involvement, inform the public of project results, and give volunteers recognition for their accomplishments.

The Lower Rogue STEP Biologist attended numerous meetings with the public and STEP group volunteers in small groups by appointment only. These meetings were scheduled to maintain the basic fish culture, monitoring, and safety requirements of essential Lower Rogue STEP activities.

The board members of the Curry Anadromous Fisherman and Oregon South Coast Fisherman made numerous commitments to promote their club and the STEP program. Multiple press releases, website/social media enhancements, bi-monthly radio broadcasts and informational newsletters were made to support the projects and program. This was a planned strategy discussed at monthly meetings.

Azalea Festival

The Oregon South Coast Fisherman and STEP biologist conducted the annual portable fishing ponds at the Brookings Azalea Festival. The group has hosted the fishing event since 1989. Approximately 125 children participated this year. The event includes displays of various ongoing STEP projects which creates a great atmosphere to recruit young anglers and volunteers.

Curry County Fair

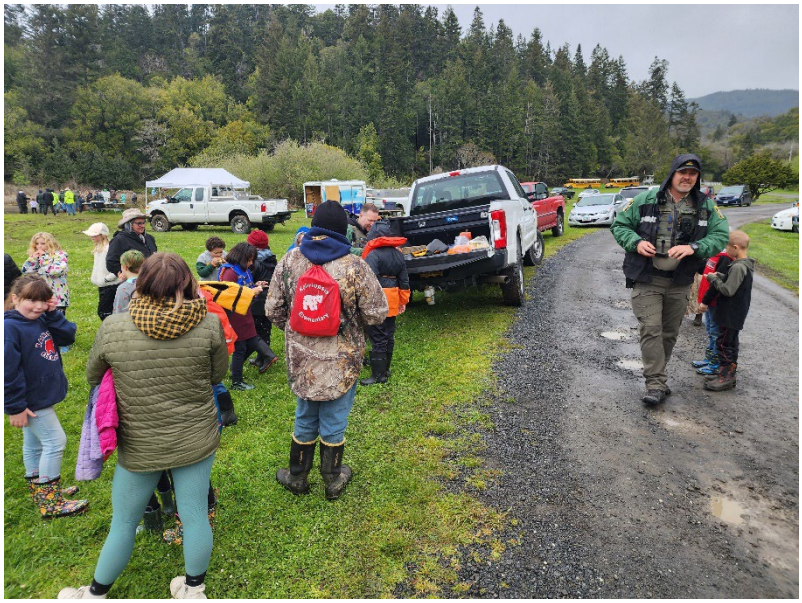
Members of the Curry Anadromous Fisherman recruited new volunteers while raising awareness and funds for the Indian Creek Hatchery program. $3000 was raised while recruiting a handful of volunteers to the STEP program.

Curry County Student Scholarships

Curry County high school students received $3000 in scholarships from a local STEP group. CAF awards $1000 to each of the three Curry County high schools annually. Students provide essays that detail their future interests. Priority is given to students interested in fisheries or a related natural resource field and community involvement.

REEL FISH DAY

The Lower Rogue STEP and Oregon Parks and Recreation Department sponsored Reel Fish Days. The angler education day is for Curry County schools that participate in the egg to fry program. In April, seven 3rd grade classes participated in the event at Arizona Beach State Park.



Reel Fish Days

Volunteers taught casting, line tying, and hook baiting. An aquatic education curriculum was presented once the core skills of angling were taught. Youth fished with assistance from volunteer instructors in Arizona Pond which was stocked with trout prior to the event.

Participants were given the option to keep or release their fish. Students that chose to retain their catch were taught the responsibility of packaging and cleaning their fish for a meal.

INDIAN CREEK RUMMAGE SALE

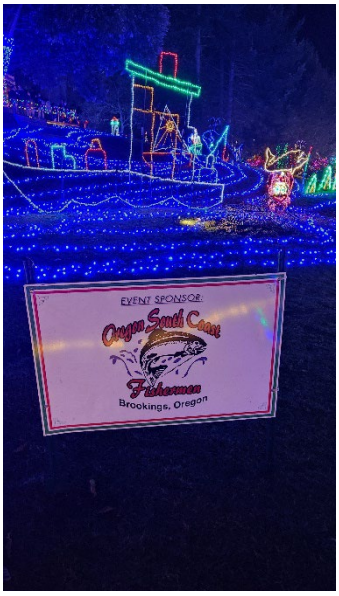
Indian Creek Hatchery volunteers organized a community rummage sale to raise funds for the hatchery. The community donated miscellaneous items for the sale. Volunteers raised $1900 for the hatchery and recruited volunteers for the program.

CURRY COUNTY NON-PROFIT VOLUNTEER RECRUITMENT FAIR

Volunteer with Curry Anadromous Fisherman sponsored booth at the Gold Beach library during a non-profit volunteer recruitment fair. The Indian Creek Hatchery theme turned out to be a popular booth and numerous volunteers were recruited to help at the hatchery.

NATURE'S COASTAL HOLIDAY

Oregon Southcoast Fisherman (OSCF) sponsor a light display for Nature's Coastal Holiday in Brookings. The Christmas lights are displayed on a 45-minute walk around Azalea Park that consists of over 2,000,000 lights. The OSCF donate volunteer hours within a 5 to 9 pm schedule that runs from Nov 25th – Dec27th. Volunteers man a booth and provide tour information. In addition, the group uses this effort to recruit volunteers for future STEP projects.



South Coast Fisherman light display

Improved South Coast Angler Access

Oregon South Coast Fisherman (OSCF) maintained an access agreement with a Chetco River front landowner. The area has been a popular access point for local area anglers for many years. Since 2001, OSCF have been involved with the cleaning and maintenance of the area. This opportunity may not have been possible without the OSCF's positive history working with the landowner. The gate is opened during fishing season for access. Annually, OSCF spend funds to improve and maintain multiple access locations on the Chetco River.

Inventory and Monitoring

Chetco River Scale Sampling

The STEP Biologist and Oregon South Coast Fishermen volunteers assisted in a fall Chinook Salmon scale sampling effort conducted on the Chetco River. The sampling effort is planned to improve data on age and hatchery/wild composition estimates for the Chetco River. The volunteers used drift boats and covered the mainstem reaches while ODFW staff sampled in the tributaries. During the 2022 brood year volunteers and staff collected 62 samples.

Chetco River Estuary Seining

The STEP Biologist and OSCF volunteers completed their 32nd year seining Chinook Salmon smolts in the Chetco River estuary. The project consists of volunteers setting a juvenile beach seine at select stations bi-weekly from June through September.

These index surveys characterize abundance and development of native fall Chinook Salmon smolts. In addition, the data is used to indicate when hatchery Chinook Salmon smolt should be released to have the least impact on native fish utilizing the estuary.

Rogue Spring Chinook Scale Collection

Lower Rogue volunteer anglers collected scales from Rogue spring Chinook. This effort is to collect scales from springers shorty after entering fresh water. The scales will be used in ODFW scale lab to better understand what the edge of the scales look like before they start breaking down and resorbing. These scales will be compared to the annual collection that determine hatchery/wild and age composition. Most of the scales are collected months later from dead fish on the spawning grounds.

Winchuck River Screw Trap

The STEP Biologist and OSCF volunteers operated a downstream migrant trap just upstream of the Winchuck River estuary. The OSCF have operated the trap for the past 19 years, doing work that would otherwise be unaccomplished under current district staffing levels. The data obtained from this project is used by ODFW staff to assist in managing fall Chinook Salmon.

The 2023 Winchuck River trapping season concluded with 42 days of trap operation and an estimated 107,213 fall Chinook Salmon migrated past the smolt trap site.

HUNTLEY PARK SEINING

The Huntley Park Seining Project represents a continuation of a 48-year adult salmonid monitoring database. This project is conducted annually from July through October at Huntley Park on the lower Rogue River. The Huntley Park project is a high priority to the District and harvest managers. The Huntley Park data is used to monitor stock abundance, age composition and hatchery/wild ratio of summer steelhead, Coho Salmon, and fall Chinook Salmon. Later in the season, wild fall Chinook Salmon broodstock are collected for the Indian Creek Hatchery STEP facility. Several STEP and local volunteers participate every year, rain or shine.

CHETCO FISH SNOUT RECOVERY STATIONS

During the fall, two snout recovery stations were deployed to several Chetco River boat ramps. Volunteers solicited prizes for raffle to anglers that donated tagged snouts. Each station has cards available for anglers to fill out to include with the snout. If the card is filled out correctly and the snout has a tag the angler will be entered into drawings that will be conducted at the end of the season. Volunteers collected 92 snouts in 2022.

ROGUE FISH SNOUT RECOVERY STATION

The STEP Biologist and CAF volunteers monitored snout collection stations at various access points on the Lower Rogue. These stations were deployed throughout the Spring and fall Chinook Salmon season. The stations received over 120 snouts and were well received by anglers as an effort to collect valuable harvest data on Indian Creek Hatchery and the Rogue spring Chinook Salmon hatchery program.

SOUTH COAST SPAWNING GROUND SURVEYS

Spawning ground surveys are vital forecasting tools for estimating fall Chinook Salmon runs in coastal streams. The Lower Rogue District is responsible for regularly surveying 27 separate surveys every 7-10 days throughout the spawning season. In certain conditions, consistently completing this on time every week can be a real challenge with district staff. Some of the more remote surveys that require greater travel time are especially hard to keep up with. For the 2021- 2023 fall Chinook Salmon spawning season, several members of the Lower Rogue Watershed Council volunteered their time to assist with surveying some of these more remote surveys. ODFW held several training sessions tailored to each survey to be sure the volunteers felt comfortable with the standardized sampling protocol. The volunteers were supplied with gear and were set loose to survey their assigned streams. Upon completion, the survey data was reported to the Assistant District Fish Biologist weekly where it was then reviewed and entered into the master database.

HABITAT IMPROVEMENT

STREAM ENRICHMENT

Volunteers with the Curry Anadromous Fishermen and the Oregon South Coast Fishermen assisted ODFW with placement of fall Chinook Salmon carcasses. Fall Chinook Salmon carcasses from Elk River Hatchery and

Indian Creek STEP Hatchery were distributed in the Chetco River, Euchre and Brush Creeks and lower Rogue River tributaries.

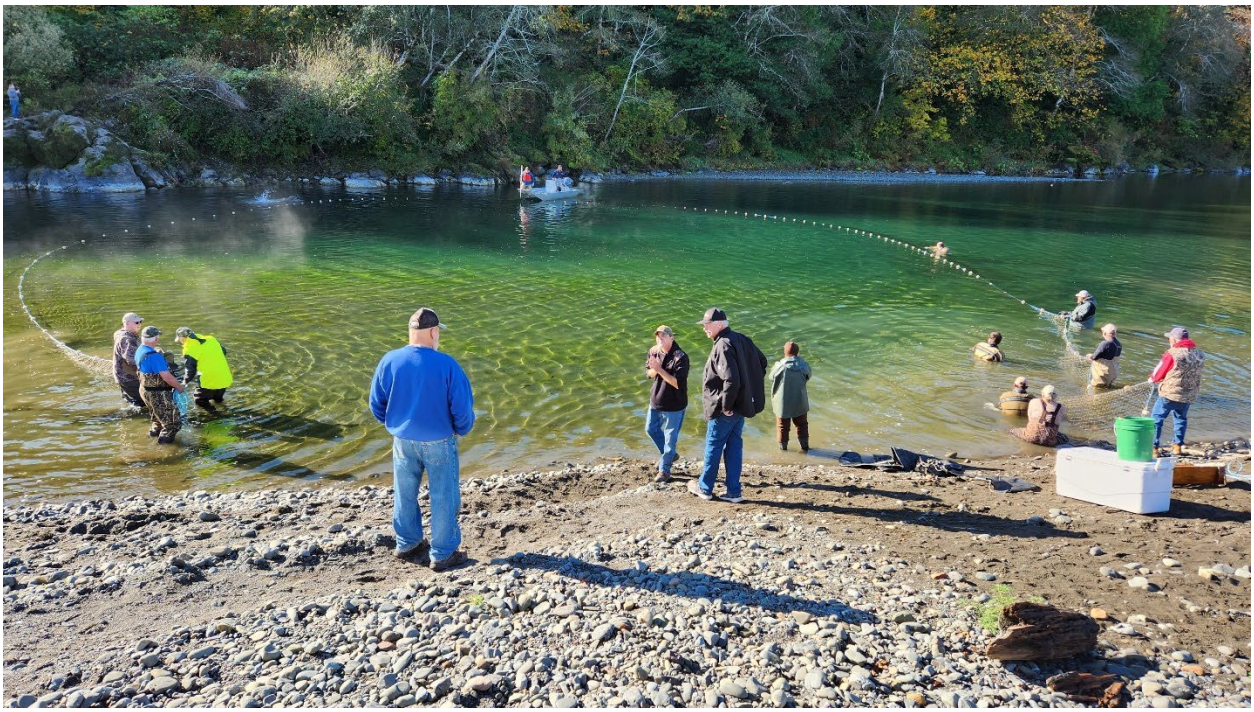
Fish Salvage

Oregon South Coast Fishermen volunteers salvaging stranded Chetco River fall Chinook Salmon juveniles from off-channel pools. Volunteers located pools that were no longer connected to the river and that had a high risk of dewatering over the summer months. Many fish salvaged were Chinook Salmon, some juvenile winter steelhead was observed in the catch.

Fish Culture

Chetco River Broodstock Collection

Volunteers and fishing guides assisted ODFW staff in collecting broodstock for the Chetco River hatchery programs. Chinook Salmon and steelhead were collected and transported to Elk River Hatchery.



Chetco River broodstock collection

Chetco Chromer Challenge

Members of the OSCF held the5th annual Chetco Chromer Challenge. The Challenge was sponsored to increase participation in the annual angler steelhead broodstock effort. The group held a kickoff party at Chetco River Brewery to sign anglers up for the -week derby event. Throughout the derby anglers submitted pictures of the broodstock being deposited into the holding pens along the river. The pictures were used as raffle tickets for various prizes. The Chromer Challenge ended with 48 fish being donated for broodstock and an awards party at the brewery.

FERRY CREEK ACCLIMATION

ODFW and OSCF acclimated fall Chinook Salmon in Ferry Creek Reservoir. Fall Chinook Salmon were acclimated at the Ferry Creek Reservoir which is an unused water source for the City of Brookings that flows into Ferry Creek. Volunteers reared two groups of 13,500 fall Chinook Salmon smolts. The goals of the acclimation project: 1) Increase harvest opportunity by increasing the length of time the returning adults hold in the Chetco estuary, and 2) reduce the proportion of naturally spawning hatchery fish in the wild population.

INDIAN CREEK STEP HATCHERY (LOWER ROGUE)

Wild Lower Rogue fall Chinook Salmon broodstock are collected, transported, and spawned at the Indian Creek Hatchery STEP facility. The resulting offspring are incorporated into a smolt program for supplementation of Lower Rogue Chinook Salmon stock. A total of fall Chinook Salmon were marked and reared to smolts by volunteers. The full sized smolts were released into the Rogue River estuary in the late summer. In addition, coded wire tagging was canceled for the brood-year over concerns that taggers could not maintain adequate social distancing.

SCHOOLS AND GROUPS THAT WORK WITH LOWER ROGUE STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Organizations**
Azalea Middle School, Brookings	I'm Hooked, Inc
Brookings Harbor Christian School, Brookings	KCIW Curry Coast Community Radio, Brookings
Brookings-Harbor High School, Brookings	KURY Radio, Brookings
Driftwood School, Port Orford	Lower Rogue Watershed Council, Gold Beach
Gold Beach High School, Gold Beach	Oregon South Coast Fishermen, Brookings
Kalmiopsis Elementary School, Brookings	Oregon Stewardship, Medford
Klamath Outdoor Science School, Klamath Falls	Port Orford Ocean Resource Team, Port Orford
Pacific High School, Port Orford	South Coast Watershed Council, Gold Beach
Riley Creek School, Gold Beach	**Government**
Organizations	City of Brookings
Curry Anadromous Fishermen, Gold Beach	Curry County
Curry Citizens for Public Lane Access, Gold Beach	Port of Brookings
Curry Sportfishing Association, Gold Beach	Port of Gold Beach

UPPER ROGUE STEP

Ryan Battleson, STEP Biologist

Dan Van Dyke, District Fish Biologist

Frank Drake, Assistant District Fish Biologist

The Upper Rogue STEP District includes most of the Rogue Watershed, extending from the headwaters near Crater Lake downstream to Mule Creek near the community of Marial. Primary tributaries include Big Butte Creek, Little Butte Creek, Elk Creek, Bear Creek, Evans Creek, Grave Creek, the Applegate River, and the Illinois River. The Rogue Watershed has the largest human population of any coastal watershed in Oregon. Approximately 400,000 people live in the district, posing challenges for fish and wildlife resources but also providing many schools, service clubs, sportsman's clubs, and volunteers to assist in various STEP projects that educate citizens and improve fish habitat throughout the basin.

The diversity of fish species native to the Rogue is narrow, but the river has and continues to produce large numbers of salmon and steelhead. One species, the Coho Salmon, is listed as "Threatened" under the Federal Endangered Species Act.

The 2022/2023 reporting year was still impacted by COVID. While many restrictions on meeting in person had been lifted, there was still some reluctance to meeting face to face, however, groups re-engaged with outdoor volunteer activities. The Fish Eggs to Fry program involvement resumed in 2022 with 39 schools participating across Jackson and Josephine Counties. Large community events in the fall of 2022 were also starting to regain a following and by spring of 2023 fishing and community groups were starting to meet at near pre-pandemic levels. Large highlights still included acclimation of winter steelhead smolts in the Middle Rogue, with the successful net pen implementation on Jump off Joe Creek being the biggest new project implemented. Monitoring efforts with winter upstream migrant hoop traps and spring/early summer outmigrant fry traps accounted for a substantial amount of volunteer hours of direct monitoring. Several projects in the winter and summer of 2023 were undertaken to support the recently adopted Rogue South Coast Multi-Species Conservation and Management Plan (RSP), including angler creel interviews, steelhead spawning surveys, and self-reporting angler logbooks. The volunteer operation of an adult weir near Cole Rivers Hatchery supported reductions in the proportion of hatchery origin spawners (pHOS) of spring Chinook Salmon, and a month-long pikeminnow angling contest addressed management actions called for in the Rogue Spring Chinook Conservation Plan. Carcass tosses, school habitat projects, and the fish eggs to fry program are all projects where the STEP biologist is making efforts to incorporate diversity, equity, and inclusion into the Upper Rogue STEP.

EDUCATION AND PROGRAM DEVELOPMENT

SMALL STREAM, URBAN STREAM, INTERMITTENT STREAM PROJECTS

The Small Stream, Urban Stream, Intermittent Stream Project of monitoring and outreach continued to be a focal point of the STEP program in the Rogue Valley. This effort is aimed at the following: creating awareness of the fish resources using these streams, promote stewardship and protect habitat, gain additional fish distribution information, and develop interest and support for restoration actions on individual streams. The small stream, urban stream, and intermittent stream awareness theme is present in nearly every outreach event, monitoring activity, and habitat restoration undertaking that the Upper Rogue STEP coordinates and participates in. STEP also functions as a community advisor, with examples this year including meeting with the City of Central Point for restoration work planned on Elk Creek, which resulted in a completed fish passage plan to replace failing culverts.

Key to the project, volunteers operate upstream migrant hoop traps to survey for fish use during winter. A total of 45 streams have been sampled with hoop traps since the start of the project in 2005. Many streams have been re-sampled following improvements to fish passage downstream such as Lazy Creek, Larson Creek, Anderson Creek, Jones Creek, and others. The trap data and restoration opportunities are communicated to the public through a variety of techniques including presentations, newspaper articles, and landowner mailings. The Upper Rogue District STEP biologist coordinates all aspects of the project: identifying sites; maintaining hoop traps; recruiting and training volunteers; writing brief summaries of survey results; and working to publicize the results within the community. This past year, data from hoop trapping resulted in additional stream protections as Essential Salmonid Habitat through the Oregon Dept. of State Lands.

FISH EGGS-TO-FRY PROGRAM: CLASSROOM INCUBATORS

In the Upper Rogue District, the Fish Eggs-to-Fry Program focuses on raising spring Chinook Salmon from the eyed-eggs stage to button-up fry. The fall of 2022 saw a return to teacher interest in classroom incubators.

Being one of the flagship educational programs offered through ODFW, an increase in school participation is a top priority to the Upper Rogue District. Several Title 1 schools are in Jackson and Josephine County and extra effort is being made to get more of these public schools involved through offering volunteer and equipment support. A surprising number of rural Jackson County Schools participate in the program, but more effort is needed in Josephine County to bring those schools (particularly those in the Three Rivers District) into the program. Medford School District is also a top priority with numerous Title 1 schools on the docket for the coming year. Volunteer onboarding with Medford School District is one of the challenges the STEP biologist must overcome with STEP volunteers to get them cleared to enter these schools, which requires an additional background check and sign up with the District.

The Fish Eggs to Fry program continues to act as a springboard for many other programs such as Salmon Watch, salmon dissections, Stream Scene, the Small Stream, Urban Stream, Intermittent Stream Program, and Angler Education in the Rogue Valley. The STEP biologist routinely shares opportunities, videos, anecdotes, and partner organization resources to teachers through this program. Additionally, all teachers have been outfitted with native species of the Rogue

posters, river restoration continuum posters, and egg stage displays. The Upper Rogue STEP biologist continued to bring volunteers up to speed to help deliver better presentations to schools upon delivery day (of eggs), as well as offering teacher trainings before the program starts for the year.

BEAR CREEK SALMON FESTIVAL AT NORTH MOUNTAIN PARK, ASHLAND

This event was held again for the first time since the pandemic. Typically, 300 to 400 people attend this event, being the largest outreach event STEP participates in. A 400-gallon aquarium display is stocked with Chinook Salmon and summer steelhead. Stream stewardship materials are also on display and given out.

ASHLAND SALMON FESTIVAL

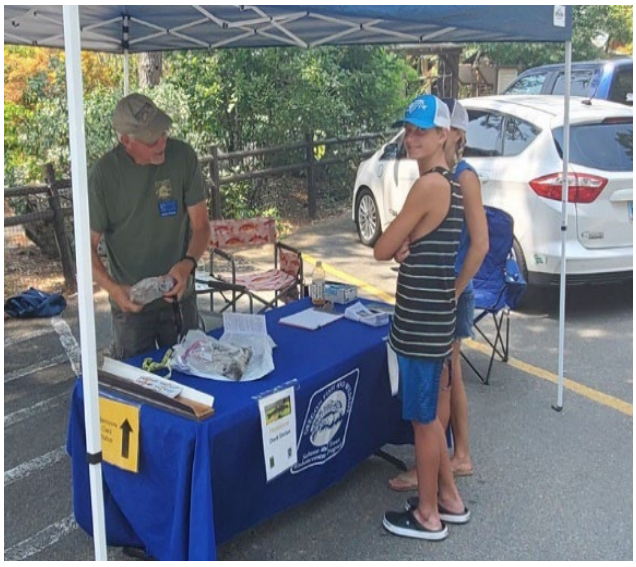
This event is a great opportunity to emphasis the importance of Bear Creek to native salmonids, despite being the Rogue River's most urbanized stream.

SALMON WATCH

The STEP Biologist coordinated delivery of fish carcasses for dissections with volunteer instructors and Cole Rivers Hatchery in October 2022, and presented information on salmon life cycle during field trips on the Rogue River.

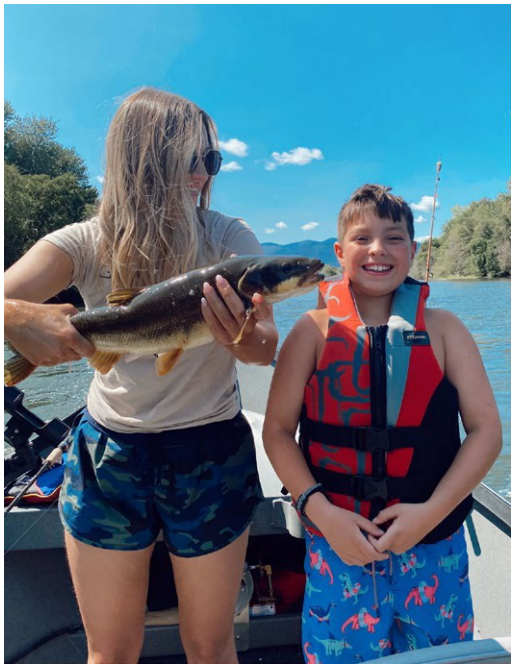
ROGUE PIKEMINNOW ROUNDUP

Encouragement of angler caused mortality of non-local Pikeminnow was called for as Management Action 9.4 in the Rogue Spring Chinook Salmon Conservation Plan of 2007 and Comprehensive Review of 2018. This was the 5th year of the Rogue Pikeminnow Roundup, which is a month-long derby where participants catch non-local Pikeminnow and enter their catch via online submissions or weigh their catch in-person at 2 check stations operated by volunteers on five Sundays during the contest with the help of 8 volunteers. Online submissions were also a major portion of the contest. Gift cards, passes, and other prizes were donated by Blackbird Shopping Center of Medford, Sportsman's Warehouse of Medford, Bradbury's Gun & Tackle, U-Save Gas & Tackle,



Pikeminnow check station.

Rogue Fly Shop, Sawyer Station, Troys Guide Service, Public Lands, and Josephine County Parks Department. Fish were donated to Wildlife Images Rehabilitation Center, who also generously allowed their facility to store equipment. City of Rogue River also provided storage space for check station equipment. Volunteers distributed flyers and posters to local businesses and boat ramps throughout Jackson and Josephine Counties. Care was taken to craft public talking points that also emphasized the need to conserve Klamath Small-Scale Suckers (a look alike species), to only harvest Pikeminnow in the Rogue, and tips on locating and catching fish. One participant brought in over 151 pounds of pikeminnow and had the largest fish at 20.5 inches! The big fish for youth came in at 18.5 inches! This program continues to grow in popularity and results.



Pikeminnow Anglers

FISHING GROUP OUTREACH

January 2023 marked the roll-out of implementation of new validations and tag requirements for winter steelhead fishing in the Rogue basin, resulting from the adoption of the RSP. A lot of public outreach occurred to provide information proactively, and correct misinformation. A presentation was given to the Middle Rogue Steelheaders on the changes to licensing and reporting requirements. Flyers were delivered to Point of Sale licensing vendors, and time was spent at each business to answer questions about the new licensing requirement. In March, STEP assisted the City of Grants Pass in creating a Facebook post about steelhead fishing on the Rogue River.

PROJECT TECHNICAL ADVISING

The STEP biologist assisted private landowners with mitigation recommendations for non-native vegetation clearing within protected riparian setbacks. The STEP Biologist also assisted several private landowners with site inspections for private pond stocking, provided advice and guidance regarding fish passage requirements on culvert replacements, and provided contact information to the proper channels for their projects. This year the STEP biologist also participated in several local Zoom meetings organized in response to urban wildfires and monitoring and restoration needs for riparian habitat, toxics abatement, and fish monitoring. STEP also provided technical assistance to an Eagle Scout project which eventually planted multiple riparian trees along a small urban stream in Phoenix.

In 2005, ODFW implemented a program of increased monitoring and outreach on small streams, urban streams, and intermittent streams of the Rogue Watershed. A key component is surveying for the relative abundance and occupancy of salmon and trout using these streams during winter high flow periods using hoop traps. The information is collected to inform the public about the importance of these small streams as refuge for salmonids during winter storms. As stated earlier, to date 44 streams have been sampled. In spring of 2018, STEP began expanding its monitoring efforts to also include more outmigrant fry trapping on mostly summer steelhead streams. Traditionally, outmigrant fry-trapping had occurred on streams impacted by irrigation withdrawals or unscreened diversions such as Jones Creek. These trap and haul efforts still occur on some streams and the Upper Rogue STEP biologist and volunteers are always on the lookout for another opportunity.

Monitoring fisheries and collecting creel data on local fisheries is also a great way to utilize volunteer resources. Continued use of voluntary creel boxes on the upper Rogue's Holy Water Trout fishery and the development of a logbook program in the upper Rogue and Applegate has been a focus of the Upper Rogue STEP's fishery monitoring program this past year. Additionally, STEP did angler creel and effort surveys in the Applegate.

HOOP TRAPS

Rogue's Holy Water Trout fishery and the development of a logbook program in the upper Rogue and Applegate has been a focus of the Upper Rogue STEP's fishery monitoring program this past year. Additionally, STEP did angler creel.

This year three streams were trapped using three hoop traps. These sites were 1) Bummer Creek (Merlin), 2) Harris Creek (Merlin), and 3) Coleman (Phoenix).

Bummer Creek trap was run for 80 days between December and March. It was checked by 5 volunteers a total of 39 times and juvenile trout, steelhead, and Coho Salmon. These initial results prompted further investigation of current anadromous fish use on Bummer Creek, a tributary of the Jump-Off-Joe sub-basin.

Harris Creek in Merlin is another tributary of Jump-Off-Joe Creek. The hoop trap operated for 80 days between December and March and was also checked 39 times by 4 volunteers. Only 1 juvenile steelhead was captured.

Coleman Creek in Phoenix was the third creek to be monitored with a hoop trap in the winter of 2022/2023. This stream is a tributary of the highly urbanized Bear Creek sub-basin, and the lower reaches were impacted by the 2021 Almeda Fire. A recent ODOT project replaced a poorly designed culvert with a fish passage compliant bridge and trapping provided evidence that at least 1 fish was utilizing the newly accessible stream reaches. The trap was run for 26 days between January and March and was stewarded by one volunteer.

OUT-MIGRANT FRY TRAPPING

Trapping efforts on the Jones Creek sub-basin in Grants Pass started in 2006, and data gathered has supported the removal of numerous fish passage barriers that affected summer steelhead. STEP has continued to run fry traps every spring to help monitor the recovery of steelhead in Jones Creek with 2023 being the 17th consecutive year of monitoring. Information like fry trapping helps to prioritize passage projects like those implemented by the Oregon Dept. of Transportation. STEP's trapping efforts encompassed these watersheds this year, along

with Birdseye Creek, Galls Creek, Fruitdale Creek and Sam's Creek to look at fish production during ongoing drought conditions. The data collected will help to illustrate what the general trend of outmigration is on each respective creek before and after restoration projects may be implemented.

During the spring of 2023, 8 STEP volunteers contributed approximately 308 hours to outmigrant fry trapping on 5 streams, from April through June. Southern Oregon again experienced drought conditions for most of the winter but did have a wet spring and early summer. Trapping observations in 2020-2022 on these small streams indicated the need for continued fish passage improvements on streams of the Middle Rogue.

West Fork Jones Creek trap operated for 34 nights between May and June and was checked by volunteers 21 times. Total catch was 152 emigrating trout fry.

Birdseye Creek and Galls Creek are part of a paired watershed monitoring project. Birdseye Creek is located near Gold Hill. Most years it is a perennial stream, but reports are that it goes subsurface in some reaches, especially during the past drought years of 2013-2015. Galls Creek is likely one of the top six producers of summer steelhead, as identified by Fred Everest in the 1970's. Despite the challenges of passage under the Interstate-5 culvert at its mouth, the stream produces a quite a few fish.

Galls Creek trap operated for 98 nights between May and June and was checked by volunteers 37 times. Total emigrant catch was 27 cutthroat, 3,104 trout fry, and 5 juvenile steelhead.

Birdseye creek trap ran for 63 nights and was checked 36 times by volunteers between May and June. Total emigrant catch was 63 cutthroat, 357 trout fry, and 69 steelhead.

Trapping on Sams Creek was fair this year, with mostly steelhead fry, and one Coho Salmon being caught. Total emigrant catch was 3 cutthroat, 330 trout fry 37 steelhead, and one Coho Salmon over 63 nights trapping.

Fruitdale Creek has artificially augmented flow during the April-October irrigation season which does not always prompt juvenile fish to emigrate at the same time as surrounding tributaries of similar drainage area. A significant fish passage barrier is located near the mouth of Fruitdale Cr. The trap was run for 47 nights from May through June and checked 23 times. Total emigrants catch was 14 cutthroat, 245 trout fry, and 17 steelhead.

HOLY WATER VOLUNTEER CREEL:

The Holy Water Trout fishery is a 0.75-mile stretch of the Rogue River between the Cole Rivers Fish Hatchery blocker dam and William L. Jess Dam (Lost Creek Lake). This stretch of water is stocked with triploid rainbow trout and has minimal natural production. This section of Rogue River has received the moniker of the "Holy Water" for the famed larger rainbow trout that it has produced. Local fly-fishing groups have contributed to monitoring, creel, and propagation activities with STEP on this popular fishery.

The Rogue Flyfishers (RFF) continued to operate eight voluntary angler reporting creel stations to evaluate catch per unit effort, angler demographics, and recovery of tagged fish information.

The STEP Biologist continues to maintain a database of ongoing creel information and recaptured tagged fish at the Holy Water. This is an ongoing monitoring and fishery enhancement project.

DEVELOPMENT OF SUMMER STEELHEAD GUIDE LOGBOOK:

In the development of the RSP, a need for monitoring the early run component of the Rogue's summer Steelhead population was identified. Historical Gold Ray Dam records correlated well with returning numbers of hatchery and wild fish to Cole Rivers Hatchery, however Gold Ray Dam has been removed. A logbook was given to anglers to record their hatchery and wild steelhead caught through September 15. Considerable time was spent in Harvest Zone 228 of the Rogue to explain the project to private anglers and guides. A total of 30 anglers were given logbooks, with zero books being returned by the end of September 2023. Efforts to track down logbooks are still underway. This project is still in development stages, but the hopes are that relationships are starting to grow to help meet management needs. The STEP biologist also maintained a database with the creel data.

STEELHEAD SPAWNING GROUND SURVEYS

To assist with the implementation of the RSP, STEP was asked to set up winter steelhead spawning surveys. STEP continued to walk Ashland Creek survey and recruited 1 additional volunteer to help survey this stream for evidence of summer and winter steelhead spawning. This survey is more tailored as an outreach tool to the community of Ashland, and to give an opportunity for students to gain valuable experience that can be included on their work resume. In Jump off Joe Creek and Quartz Creek, these 2 spawning surveys will help monitor for pHOS (percent hatchery origin on spawning grounds) needed for the winter steelhead acclimation project expansions in the Middle Rogue. Additional surveys and protocols are being explored to help meet the pHOS goals and monitoring requirements of the RSP.

Spawning surveys are also conducted on the North and South Forks of Little Butte Creek to document whether spring Chinook Salmon are using the upper portions of the tributary to the Rogue River. This information helps inform district management activities.

Habitat Improvement

RIPARIAN RESTORATION

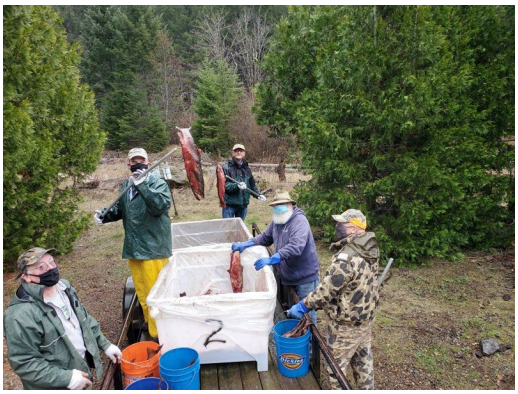
One work party day helped to plant willow stakes along a section of lower Whetstone Creek. This section of creek is owned by the Mace Watchable Wildlife Foundation. Willows from the prior year's planting were still alive which was encouraging for all to see.

This was the 4th year of willow planting on this section of Whetstone Creek. STEP also continued to work with the Denman Wildlife Area host and Denman Wildlife Area manager to irrigate plantings and keep blackberry at bay. No other planting days were coordinated by the STEP Biologist for Whetstone Creek in 2022-2023 reporting period.

A small unnamed tributary at Blue Heron Park was severely burned during the September 2020 Almeda Drive fire. The STEP biologist spent 2 mornings weed-whacking blackberries and planted about a dozen native trees. The restoration sign was also re-installed along the Bear Creek Greenway. One volunteer work party was organized to remove non-native blackberry.

STREAM NUTRIENT ENRICHMENT

Three carcass tosses occurred during the 2022/2023 winter. Carcasses were distributed into Big Butte and Little Butte Creek and Quartz Creek. A total of 280 carcasses were distributed by 18 volunteers over the three events.



Carcass toss event.

TEMPORARY FISH PASSAGE IMPROVEMENTS

Anderson Creek: A temporary wooden fish ladder was constructed by a member of the Southern Oregon Flyfishers in 2019 with technical assistance from the Upper Rogue STEP biologist. This site has been continually maintained by repairing plywood boards, removing debris, and directing sandbags to keep water flowing through the ladder. Hoop traps operated upstream in previous years have documented passage improvements into Anderson Creek, all due to the wooden fish ladder.

Sand Creek: A concrete irrigation diversion on Sand Creek in Grants Pass was found to block migration of juvenile steelhead during hoop trapping surveys conducted by STEP volunteers in recent years. In 2015, volunteers installed metal trusses and dam boards, under guidance of the Southwestern Fish Screening and Passage Office, and the local STEP biologist, to create a jump pool to improve conditions for passage of juvenile and adult steelhead. This structure still appears to be inadequate for providing upstream passage to smaller juvenile steelhead in low water conditions, but adult passage has most certainly improved. Downstream passage also has benefitted, as any out-migrating fry and smolt now have a pool to land in once passing over the seasonal irrigation dam. Recent land-owner turn-over has also impacted the continual operation of this site. It is believed that the structure has not been installed since the 2020/2021 reporting. The STEP biologist has attempted to develop a relationship with the new landowner, but efforts haven't gone much further than emails.

Wagner Creek: A cold water perennial tributary to Bear Creek, Wagner Creek is heavily used by juvenile steelhead in the winter and even in the summer. Wagner Creek has also been the recipient of numerous passage and riparian projects in recent years from local restoration practitioners. As Wagner creek flows under Highway 99 in Talent, it flows over a concrete apron that protects a sewer line and bridge abutment. This concrete lip often clogs with wood and garbage, making the jump more difficult, or sheeting water provides no defined passage channel. A volunteer helped to maintain temporary sandbag channels to improve juvenile fish passage during low water conditions. This site was checked approximately 6 times in winter of 2022/2023.

Bear Creek: Although irrigation conveyance in Bear Creek was not as severely curtailed as in previous years when irrigation all but stopped in August, irrigation withdrawals greatly reduce flows in lower Bear Creek in an 8-mile reach from Medford's Hawthorne Park, downstream to Jackson Creek where irrigation return flows re-enter Bear Creek (below Central Point). This creates several challenges to native fish in lower Bear Creek. The goal in this reach is to enable juvenile salmonids to migrate upstream, out of this "dewatered" reach. District staff, the STEP biologist, and a volunteer made numerous visits to this section of Bear Creek to monitor

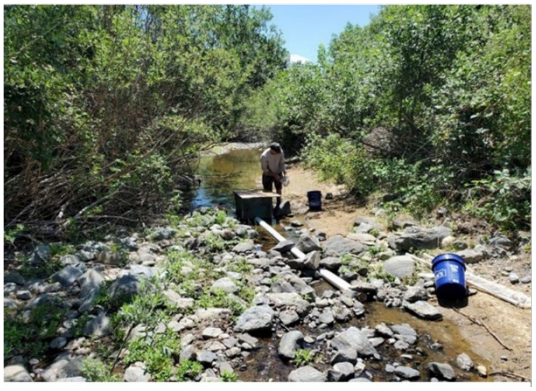
conditions. A volunteer assisted the STEP biologist to place sandbags and a plywood jump pool box at the base of the RRVID Hawthorne Diversion to improve the initial jump height into the fish ladder, while garbage and debris were cleared to provide juvenile fish with an easier pathway to the attraction flow of the ladder. A sandbag fish ladder was also constructed on the abandoned sewer line under Jackson Creek to help juveniles pass the structure. A volunteer helped the STEP Biologist fill and move sandbags to the site. Sandbags were also used during September to provide a jump pool for upstream migrating adult Chinook Salmon get a "tail-hold" while they were jumping at the structure. Sandbags were also placed on the abandoned sewer line under Jackson Street. Oregon Stewardship, a local non- profit that works on restoration with local area youth, continued to report sightings of Chinook Salmon up and downstream of the Jackson Street Bridge area, alerting district staff on fish passage and needs to revisit the site.

Fish Culture

EMERGENCY FISH SALVAGE

Several emergency fish salvage opportunities come up in the Rogue District every year. Many of the tributaries of the Rogue, Applegate, and Illinois Rivers are seasonal and go dry in late spring through summer. Some of these are due to irrigation withdrawals or some naturally dry up. STEP intervenes on locations where anthropogenic influences cause fish stranding such as a pool below large culverts that becomes isolated, or streams used as irrigation conveyance ceasing in the end of summer and a stream quickly going dry. STEP has been working with the Grants Pass Irrigation District to coordinate a salvage operation at the end of irrigation season in late September for the past few years. In September of 2023, 3 volunteers assisted in an attempted fish rescue on drying pools in Fruitdale Creek. Unfortunately, only 1 juvenile steelhead was rescued this year due to inaccessibility of Fruitdale Creek from a culvert barrier (previously described under "Fry Trapping", above). It became apparent to the volunteers that this culvert was the reasoning for no salmonid presence above the culvert, as one pass through the pool below the culvert with a hand seine resulted in Coho Salmon, Chinook Salmon, and steelhead in one net in about one minute! These volunteers also assisted with salvage on Savage Creek, where both Coho Salmon and steelhead were rescued from drying pools. Jones Creek was also salvaged on 2 separate occasions resulting in 40 juvenile salmonids being relocated.

Fish Salvage



Fish Salvage

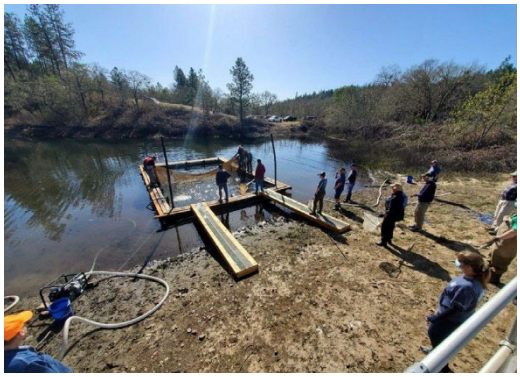
WINTER STEELHEAD SMOLT ACCLIMATION-MIDDLE ROGUE

The spring of 2023 marked the 7th year for acclimating winter steelhead smolts in the Grants Pass area. Acclimation of winter steelhead smolt in the middle Rogue River is aimed at maximizing the contribution of existing hatchery programs in the Rogue basin to the local fishery. These hatchery releases are an integral component of the RSP. This Department-management plan calls for three locations where fish will be

acclimated within mixed- management HUCs/Basins (wild and hatchery program) as well as completion of spawning ground surveys to monitor straying of hatchery fish. This program is also consistent with the Cole Rivers Hatchery Genetic Management Plan for Winter Steelhead and the Oregon Native Fish Conservation Policy. This project is a collaboration between Grants Pass Irrigation District, the Middle Rogue Steelheaders, private landowners, local guides, and STEP.

This year, 9,251 winter steelhead smolts were acclimated in Skunk Creek, 10,904 in Greens Creek, and 13,973 in Jump off Joe Creek. Acclimation took place in the month of April with each site receiving 2 separate "batches" of fish that were held between 6-11 days for each prior to release. The Jump Off Joe Creek site was truly a success with a large net pen being deployed for holding fish on Brockman Gulch (the lowest tributary on Jump Off Joe Creek). Fish were transported out of the net pen which was deployed within a legal on-channel reservoir, and then released into Jump Off Joe Creek.

Going forward as part of the implementation of the RSP and an expansion of acclimation sites and numbers of fish, spawning surveys of the reaches of the Rogue in nearby vicinity of these acclimation sites will occur. This year Jump Off Joe Creek was surveyed 4 times, between March and June. A local recent college graduate was recruited to help with these walking surveys and was trained in proper protocols. The volunteer plans to use the experience to develop his resume in hopes of obtaining employment in the fisheries field.



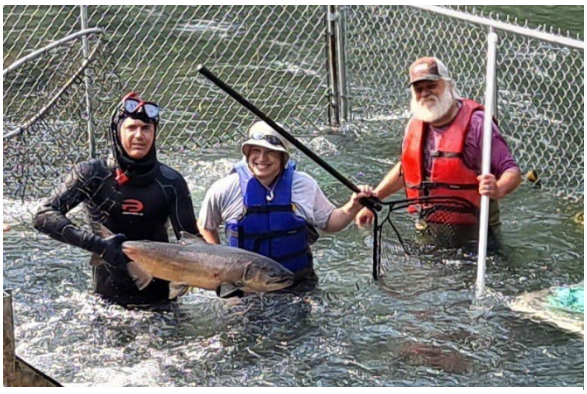
Winter steelhead acclimation net pen

UPPER APPLEGATE STEELHEAD REINTRODUCTION INVESTIGATIONS

For the sixth year, volunteers helped release winter Steelhead pre-smolts, upstream of Applegate Dam into Carberry Creek. In December 30,000 pre- smolts were released in Carberry Creek from river mile 5 through 8. This project continues to investigate survival rates that would be expected if anadromous fish production were to be restored above the dam. The fish are differentially fin marked at Cole Rivers Hatchery with hatchery staff. The goal is to hopefully recapture half-pounders at the Lower Rogue District's Huntley Park seining site, or as adults should they swim into the fish trap at the base of Applegate Dam. Prior years of above-dam releases of larger smolt sized winter Steelhead, documented fish recaptures in both monitoring locations indicating that reintroduction above Applegate Dam may be possible.

ROGUE SPRING CHINOOK BROODSTOCK COLLECTION AND PHOS REDUCTION AT COLE RIVERS HATCHERY

Consistent with Management Strategy 9.5 of the Rogue Spring Chinook Salmon Conservation Plan, this volunteer project's main goal is to minimize risk from hatchery fish on naturally produced spring Chinook Salmon. This program also helps to supplement brood stock collection, as needed. Upper Rogue STEP volunteers continue to be integral in meeting these management objectives.



Broodstock Collection

This was the seventh year STEP volunteers operated a weir trap at an outlet flume at the downstream portion of Cole Rivers Hatchery.

A total of 35 individual volunteers helped construct, deconstruct, and empty the trap over 8 collection days from July through early September. Volunteers wore waders and PFD's while in

the trap with the STEP Biologist, as they crowded and hand netted adult fish and passed them to the waiting hatchery truck. A total of 996 hatchery spring Chinook Salmon were kept off spawning grounds as a result.

Schools and Groups that work with the Upper Rogue STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that worked with STEP in 2022/2023. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact 541-826-8774 if your program has been left off this list.

Education	***Organizations***
Bellview Elementary, Ashland	Applegate Partnership Watershed Council
Helman Elementary, Ashland	Crater Bass
Butte Falls Charter School, Butte Falls	Coastal Conservation Association
Madrone Trail Charter School, Central Point	Oregon State Extension Service
Sams Valley Elementary, Central Point	Rogue River Watershed Council
Jewett Elementary, Central Point	Middle Rogue Steelheaders
Central Point Elementary, Central Point	Rogue Flyfishers
Mae Richardson Elementary, Central Point	Southern Oregon Flyfishers
Crater Lake Academy, Eagle Point	Grants Pass Irrigation District
Patrick Elementary School, Gold Hill	Medford Irrigation District
Hanby Middle School (CAMP Elementary), Gold Hill	Rogue River Valley Irrigation District
Lake Creek Learning Center, Lake Creek	Talent Irrigation District
The Valley School, Medford	Save the Phoenix Wetlands
Logos Charter School, Medford	North Mountain Park Nature Center
Abraham Lincoln Elementary, Medford	Southern Oregon Bassmasters
Kennedy Elementary, Medford	Southern Oregon Women on The Fly
Hoover Elementary, Medford	
Orchard Hill Elementary, Medford	**Government**
St. Mary's School (high school), Medford	Ashland Parks & Recreation Department
Roosevelt Elementary, Medford	Bureau of Land Management – Grants Pass
Wilson Elementary, Medford	BLM/Forest Service - Medford Interagency Office
Jackson Elementary, Medford	City of Ashland
McLoughlin Middle School, Medford	City of Central Point
Oak Grove Elementary, Medford	City of Medford
Griffin Creek Elementary, Medford	Medford Water Commission
Cascade Christian High School, Medford	Jackson County Parks
South Medford High School, Medford	Josephine County Parks
Phoenix Elementary, Phoenix	City of Gold Hill
Prospect Charter School, Prospect	City of Grants Pass
Ruch Outdoor School, Jacksonville	City of Phoenix
Shady Cove Elementary, Shady Cove	City of Talent

Talent Elementary, Talent	Rogue Valley Council of Governments
Table Rock Elementary, White City	Rogue Valley Sewer Services
Allen Dale Elementary, Grants Pass	
Grants Pass High School, Grants Pass	
Ft. Vannoy Elementary, Grants Pass	
Manzanita Elementary, Grants Pass	
Rogue River Elementary, Grants Pass	
Sunny Wolf Charter School, Wolf Creek	

EAST REGION

EASTERN OREGON STEP

Jennifer Luke, STEP Biologist

Eastern Oregon District Biologists

The Eastern Oregon STEP program is administered by the ODFW High Desert and Northeast regions. These regions together cover the entire state east of the Cascades. This area includes the following major watersheds: Deschutes, Klamath, Malheur, Malheur, Lake, John Day, Umatilla, Grande Ronde, and Owyhee.

The STEP Biologist and local volunteers work with ODFW districts and hatcheries to identify specific projects requiring volunteer recruitment, supervision, or training. Project definition and direction come from the individual fish management districts and are based on the annual needs.

The STEP program focuses its efforts on monitoring trout populations, conducting aquatic education programs, stocking trout and salmon, and restoring fish habitat.

Volunteers assist with a variety of surveys including electro-fishing, trap netting, spawning surveys, snorkel surveys, hook and line surveys and zooplankton sampling. ODFW fish biologists utilize information gathered from these surveys to evaluate, monitor fish species, and meet fish management objectives.

Activities involving schools, teacher education, and public education about fish populations and their habitats are a high priority for the Eastern Oregon STEP district. STEP volunteers share their knowledge of both fishing and conservation and their involvement fosters the next generation of conscientious anglers and conservationists.

EDUCATION AND PROGRAM DEVELOPMENT

KOKANEE KARNIVAL YOUTH EDUCATION PROGRAM

Kokanee Karnival Youth Education Program continues to be a popular education program for Deschutes and Crook County elementary students. It is an annual program and began in 1998. Due to COVID, participation was reduced, however participation in the 2022-2023 notably increased. This program includes classroom activities as well as field trips to learn about salmon, trout, and their habitat. The students also tour a hatchery and attend a spring fishing clinic.

During the 2022-2023 school year 350 students participated in the Kokanee Karnival Program in which teachers signed up for classroom activities such as raising trout (Fish Eggs to Fry), basic trout biology class (dissection). We hosted Kokanee Karnival Angling field trips for nine classes. Volunteers from Central Oregon Flyfishers and Sunriver Anglers contributed 500 hours hosting these fishing clinics for fifth graders. We also lead aquatic investigation field trips in the fall for three classes.

Partners for the Kokanee Karnival Youth Education Program include STEP, Central Oregon Flyfishers, Sunriver Anglers, and the Deschutes National Forest. The STEP Biologist serves on the Kokanee Karnival Steering Committee, coordinates portions of the program, and provides training, technical assistance, and volunteer recruitment. The partners hope to grow the program to include more classes and increase volunteer participation that waned because of the pandemic.

In 2022-2023, the STEP Biologist prepared activities and materials for the Trout Dissections, Fish Eggs-to-Fry, and Kokanee Karnival classroom presentations.

METOLIUS POND: YOUTH ANGLING POND AND CHINOOK SALMON ACCLIMATION

The ODFW owned Metolius Pond, a STEP Youth Angling Education Site was open to the public in 2022-2023. The site is used for stream study and fishing. The shallow creek, the springs and the meadow provide an excellent location for students to perform stream studies.

Local school students from Black Butte School can walk to the site, where they conduct water quality sampling, stream studies, and fly-fishing lessons. The Metolius Pond is open to youth angling from May 1 to October 1.

The pond provides an easy angling opportunity for youth and disabled anglers. The small half- acre Metolius Pond opened to the public for its sixth season in 2023. On site, there is an ADA accessible path, volunteer host site, gravel parking area, ADA parking available, picnic tables and restroom. The pond has been great success and this year it provided fishing opportunity for children and families. Disabled adult anglers also took advantage of this fishing opportunity.

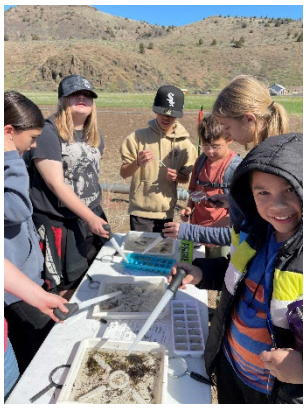
The goal of this project is to provide access to a safe and easy place for families to fish and provide safe access to a unique area where Salmon and Trout Enhancement Program volunteers can continue to conduct field trips and expand fisheries and watershed education programs. For example, the Central Oregon Flyfishers Club, with the support of STEP, hosted their 3rd annual fly-fishing clinic for youth at the Metolius Pond.

Metolius Pond is also used to acclimate Chinook Salmon smolts as part of the Salmon Reintroduction Program in the Metolius River. In 2018, as part of a trial, 2,000 Chinook Salmon smolts were acclimated in net pens. The 2018 trial acclimation was successful and many of the acclimated smolts were later detected at the Round Butte Dam Selective Water Withdrawal Facility. Acclimation in 2023 did not occur because Chinook Salmon smolts were not available due to a low brood year in 2021.

The STEP Biologist oversees operations at Metolius pond, including supervision of the volunteer host who resides at the site from May through October.

Outreach Events

The STEP Biologist participated in salmon and trout related outreach activities for students of all ages. The STEP Biologist presented information or provided materials for events sponsored by the following events: Ponderosa Third Grade field trips, and COF fly-fishing kids workshop at Metolius Pond, Kokane Karnival Streamside Field trips, Trout Unlimited Stream Ecology field trips, Steelhead Biology classes (dissections), and presentations at fishing club meetings.



Youth field trip

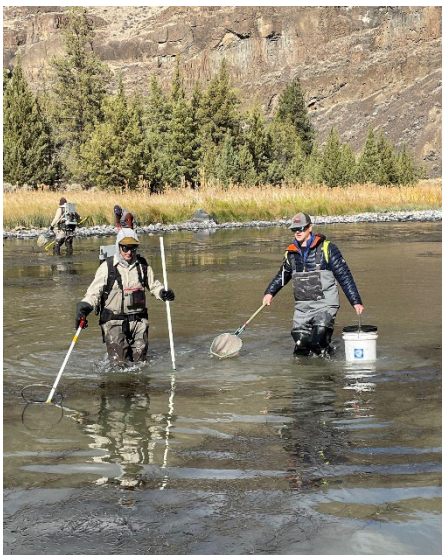
Inventory and Monitoring

East, Paulina, Lava Lake Invasive Tui and Blue Chub Control and Monitoring

Trout populations in three popular fishing destinations will deteriorate if invasive chub go unchecked. Unfortunately, these lakes cannot be treated with rotenone due to thermal springs and/or sheer size of these waterbodies. As part of a partnership between ODFW-STEP, fishing clubs and resort owners, a chub control plan was developed in 2010. The Restoration and Enhancement program awarded grant funds to Oregon State University Cascades to support the chub removal project and high lakes. The STEP Biologist, OSU Fish & Wildlife students, and volunteers remove chub with large fyke nets. In 2023, chub were removed from East and Lava Lakes during spring and summer when chub spawn in shoal areas. In 2023, the Upper Deschutes Mitigation Biologist managed the chub removal and monitoring operation in East Lake.

In 2023, the Lava Lake resort owner oversaw the chub removal operation at Lava Lake with assistance from the district biologist.

Sampling of trout from these lakes determine condition factors and relative weights. Trout sampling results in 2023 show trout continue to remain fair to good condition compared to very poor conditions observed prior to removal in 2010. East and Paulina Lakes continue to be very popular with anglers in 2023. Unfortunately, Lava Lake continues to have poor water quality, namely algae blooms and warm temperatures due to low water. We hope to continue our chub removal work on Lava Lake and restore the trout fishery.



Crooked River trout sampling

Crooked River Redband Trout Annual Population Estimate

Biologists and volunteers sampled redband trout and whitefish below Bowman Dam on the Crooked River. This seven-mile stretch of river is a very productive trout fishery, and angling is popular year-round. The survey is conducted annually because the population has been cyclical and the exact reason is unclear, although biologists believe it has to do with water flows and gas bubble disease. The sampling effort takes 5 days, and each day at

least 6 people, 3 biologists and 3 volunteers are necessary to complete the survey. During sampling, fish are stunned and netted so biologists can mark and record size, condition, and abundance. Volunteers assist with all aspects of the survey, but primary duties are to release marked fish above the sampling area. The population assessment estimates the number of redband trout and mountain whitefish greater than 8-inches long per river mile. The information gathered is provided to the public.

KLAMATH SMOLT ANTENNA TAGGING FOR MIGRATION STUDY

Prior to Klamath River dam removal, Chinook Salmon smolts were sutured with antenna and radio tags to determine migration time and survival rates from tributaries of Klamath Lake to the mainstem Klamath river. Volunteers assisted the Klamath District ODFW biologists with this effort to tag Chinook Salmon and release thousands of Chinook Salmon smolts.

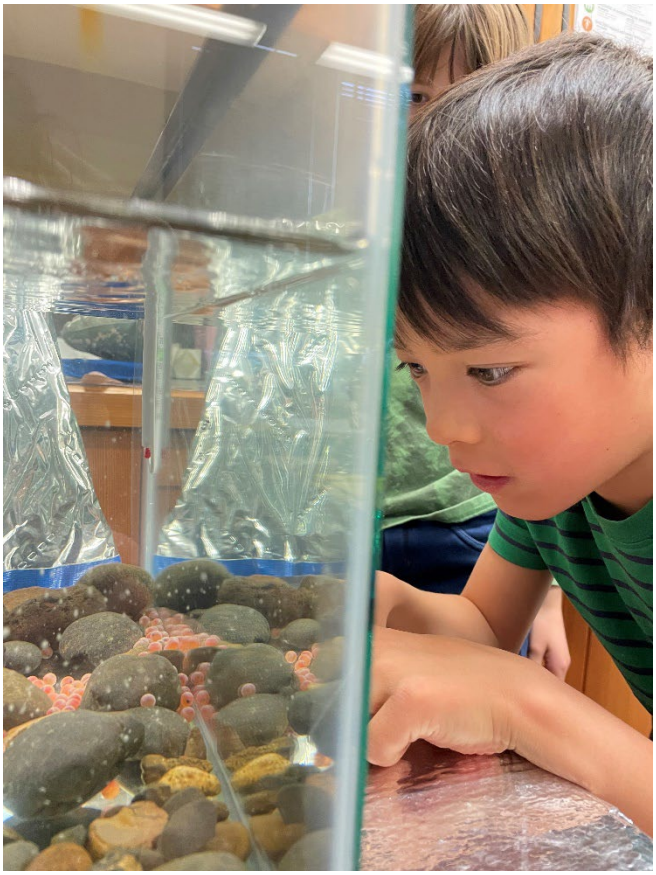
FISH CULTURE

HIGH LAKES FISH STOCKING

Volunteers backpacked trout into three popular fishing high Cascade lakes. Doris Lake, Blow Lake, and Lucky Lake are popular fishing lakes off Century Drive in Central Oregon. Altogether, these lakes received 8,000 trout fingerlings. Each volunteer carried 25-40 pounds of water and trout to each lake. This supplemental trout stocking will provide a fishery for anglers willing to hike to these lake destinations.

FISH EGGS-TO-FRY

Classrooms from all over Eastern Oregon, including Bend, Klamath Falls, Madras, Culver, Hines, John Day, Umatilla, Halfway, Ontario and Condon raised trout in classroom incubators and used STEP publications (*Fish Eggs to Fry* and *The Educator's Resource Guide for Hatching Salmon in the Classroom*). The STEP Biologist coordinated the classroom trout incubator projects. All Rainbow Trout were released in local ponds or reservoirs. Steelhead trout were released in the upper Crooked River basin.



Classroom Fish Eggs to Fry

SCHOOLS AND GROUPS THAT WORK WITH EASTERN OREGON STEP

The following is a list of schools, school districts, organizations, agencies, and other groups that work with STEP. Due to the large number of participants, it is possible that some groups were inadvertently left off this list. Please contact (503) 947-6211 if your program has been left off this list.

Education	**Education**
May Roberts Elementary, Ontario	Three Rivers School, Sunriver
Seven Peaks School, Bend	Silver Rail Elementary School, Bend
Hines Elementary, Hines	Saint Francis of Assisi School, Bend
Black Butte School, Camp Sherman	Sherman Elementary School, Grass Valley
Central Christian School, Redmond	Sisters Elementary School, Sisters
Chiloquin Junior & Senior High School, Chiloquin	Terrebonne Community School, Terrebonne
Condon Elementary School, Condon	Triad School, Klamath Falls
Crook County Middle School, Prineville	Vern Patrick Elementary School, Redmond
Culver High School, Culver	Grande Ronde Academy -LaGrande
Dayville School, Dayville	Enterprise Elementary - Enterprise
Brixner Elementary, Klamath	Union High School - Union
Pinehurst Library, Klamath	
Henley Elementary School, Klamath Falls	
Pine Eagle School, Halfway	**Organizations**
High Lakes Elementary School, Bend	Central Oregon Flyfishers, Bend
Trinity Lutheran School, Bend	Klamath County Fly Casters, Klamath Falls
Cascade Academy, Bend	Sunriver Anglers, Sunriver
John Tuck Elementary School, Redmond	Sunriver Resort, Sunriver
Lava Ridge Elementary School, Bend	YMCA of Klamath Falls
Pelican Elementary School, Klamath Falls	**Government**
Pine Ridge Elementary School, Bend	Sherman County
Ponderosa Middle School, Klamath Falls	U.S. Fish and Wildlife Services

STEP ADMINISTRATION

Marty Olson, STEP/RE Program Coordinator

Steve Emerson, STEP/RE Program Assistant

Mike Gauvin, Recreational Fisheries Program Manager

This reporting period saw minimal personnel changes for the program. Steve Emerson was on a Job Rotation for 6 months but was still able to provide limited assistance to the program. The North Coast STEP Biologist Retired in September, and the Upper Rogue STEP Biologist moved to another position with ODFW, leaving two vacancies within the STEP program.

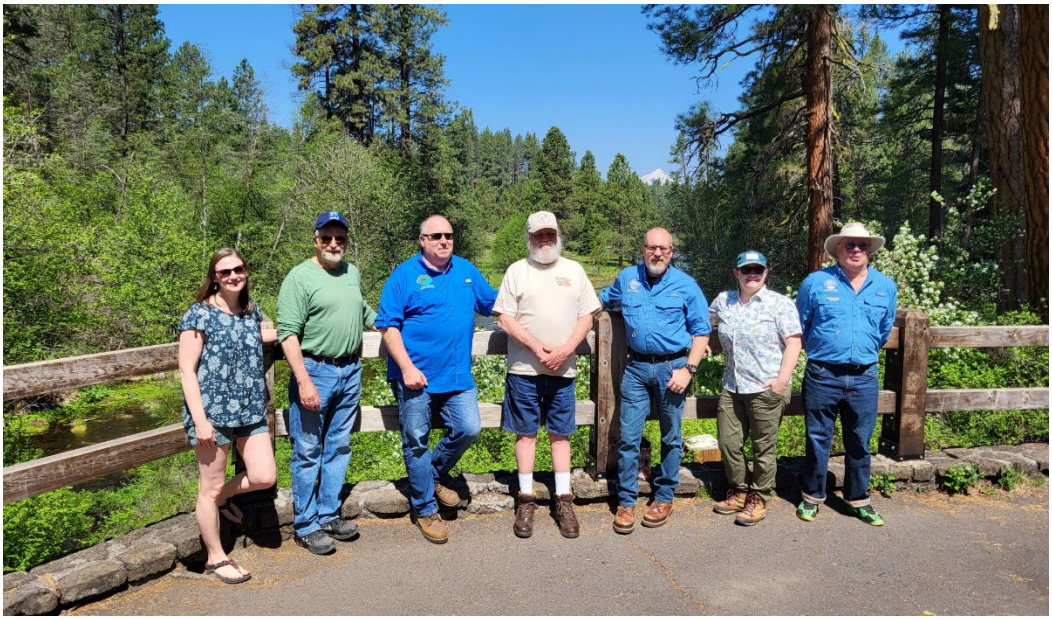
EDUCATION AND DEVELOPMENT

Salmon Trout Advisory Committee (STAC) held two meetings:

- May 18th & 19th, in person meeting in Sisters Or.
- October 19th & 20th, in person meeting in Corvallis Or.

During this report period, one member of the STAC was appointed to their second term. One seat on the STAC has remained vacant through this reporting period due to difficulties recruiting qualified individuals. The nine STAC members are appointed by the Governor to represent the volunteer community in specific geographic areas of Oregon.

More information about STEP and the STAC board and meetings can be found on the STEP webpage located at http://www.dfw.state.or.us/fish/step/.



Salmon & Trout Advisory Committee Board

Appendices

APPENDIX 1:

SALMON AND TROUT ADVISORY COMMITTEE (STAC)

Member	Region	Term	Term Expires
Vacant	North Coast		
Jessica Eubank	Mid-Coast	First Term	May 20, 2026
Dave Grosjacques	Umpqua	Second Term	June 3, 2026
Curtis Bennett	Tenmile, Coos, Coquille	Second Term	January 9, 2024
Roger Lindquist	Lower Rogue	First Term	June 30, 2025
Carl Cole	Upper Rogue	Second Term	June 3, 2026
Morgan Parks	Lower Willamette	Second Term	April 24, 2027
Rachel Ellison	South Willamette	First Term	May 26, 2026
Steve Janego	Eastern Oregon	Second Term	June 30, 2025

A maximum length-of-service policy of two 4-year terms was implemented in 1996.

List current as of December 4, 2023

APPENDIX 2:

Statewide

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North Coast STEP

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Mid Coast STEP

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Tenmile, Coos and Coquille STEP

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Fax: (971) 673-6071

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Eastern Oregon STEP

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List is current as of December 4, 2023.