

# SALMON AND TROUT ENHANCEMENT PROGRAM (STEP)

## 2015-2016 Annual Progress Report



*Prepared by the Oregon Department of Fish and Wildlife  
4034 Fairview Industrial Dr.  
Salem, Oregon 97302*

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## BACKGROUND AND SUMMARY

This report summarizes the activities and accomplishments of the Salmon and Trout Enhancement Program (STEP) from October 1, 2015 to September 30, 2016. 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 (NFCP), Fish Hatchery Management Policy (FHMP), and the Fish Health Management Policy (FHMP). 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 Oregon’s salmon and trout resources, their habitats, and STEP. 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.

- **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. Staff divides their time between the STEP program and the Restoration and Enhancement Program. STEP is implemented in the field by 11 STEP biologists (nine 1.0 FTE and two 0.5 FTE) located throughout the state.

In addition, program oversight is provided by the thirteen-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 and presents the STEP Annual Progress Report to the Commission. 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 two-day meetings. From October 2015 to September 2016, meetings were held in Salem, Bend, and Coos Bay.

Within each watershed management district, the STEP biologist fill 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.

## Summary of Current Efforts

The following summarizes accomplishments of the program in 2015-2016:

- More than 57,500 people participated in STEP training, classes, tours, presentations or workshops, or visited STEP activities or displays at public events (Table 1). These activities involved over 1,811 youth and adult volunteers. This includes 696 individual Fish Eggs-to-Fry classroom projects that reached over 28,000 students.
- Over 520 volunteers contributed over 9,200 hours on 106 projects to inventory and monitor fish populations, assess sport fisheries, conduct fish passage inspections and survey habitat in streams and rivers across the state (Table 2).
- Over 520 miles of waterways were improved for fish use by 718 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 rearing and releasing of nearly 4.2 million Chinook salmon, Coho salmon, steelhead and trout for enhancement or augmentation purposes; 2.2 million of these fish were reared (fed and cared for) before release and over 12,000 broodstock fish were collected (Table 4).
- 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 improved family fishing events.
- Promoting close and easy access to angling opportunities and providing simple, low cost fishing opportunities for youth and families (i.e. still-water, “bait and bobber”) continues to be a priority for STEP. Assistance by STEP volunteers to restore inland trout fisheries will continue.

As indicated by the amount of work accomplished, volunteers made a substantial contribution to STEP and ODFW. Because STEP activities are integral to accomplishing ODFW’s fish management objectives, ODFW staff also contributes time and resources to the program beyond what is funded by the SFR grant.

Highlights of the 2015-2016 statewide volunteer efforts include:

- 1,062 youth and 3,958 adult volunteers participated in STEP activities
- Volunteers participated in an estimated 1,060 projects, totaling 81,655 hours. This is equivalent to 39.3 full time employees.
- Using the estimated dollar value of \$27.69 for volunteer time in Oregon for 2015, the value of STEP volunteer hours was over \$2,261,000

Since the program was established in 1981, more than 365,000 adult and youth volunteers (Figure 1) have contributed nearly 3.7 million hours (Figure 2) to nearly 41,000 STEP projects. In the 35 years since STEP was founded volunteers have donated the equivalent of over \$101.5 million in time and energy. This data does not include the many additional adult and youth who have participated in presentations, workshops, field tours, or classroom projects conducted through STEP.

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

Table 1. Education and development activities, participation and volunteer effort by STEP district, 2015-2016. Activities were defined as those projects having at least one participant or volunteer; figures in parentheses indicate the number of Fish Eggs-to-Fry classroom incubator projects.

### EDUCATION AND DEVELOPMENT

STEP District	Activities	Participants	Volunteers			
			Youth	Youth Hours	Adults	Adult Hours
Coos-Coquille	4 (119)	3,666	0	0	20	778
Eastern Oregon	22 (68)	6,669	10	60	218	2,090
Lower Rogue	50 (8)	4,736	29	115	416	3,851
Mid-Coast	35 (52)	7,907	22	686	318	6,814
Mid-Willamette	88 (77)	12,773	3	43	193	1,078
North Coast	8 (18)	2,178	6	12	79	688
North Willamette	31 (203)	8,713	1	6	166	1,220
Umpqua	22 (37)	2,890	0	0	209	1,024
Upper Rogue	20 (24)	2,372	4	22	47	224
Upper Willamette	26 (90)	5,595	2	10	58	267
STAC	3 (0)	20	0	0	13	1,000
<b>Total</b>	<b>309 (696)</b>	<b>57,519</b>	<b>77</b>	<b>954</b>	<b>1,737</b>	<b>19,034</b>

Table 2. STEP inventory and monitoring activities, miles affected and surveyed and volunteer effort, 2015-2016. Activities were defined as those projects having at least one participant or volunteer.

### INVENTORY AND MONITORING

STEP District	Activities	Miles Affected	Miles Surveyed	Volunteers			
				Youth	Youth Hours	Adults	Adult Hours
Coos-Coquille	3	31	31	2	8	19	88
Eastern Oregon	23	154	47	0	0	83	2,150
Lower Rogue	12	291	25	47	133	68	1,127
Mid-Coast	12	0	0	48	832	128	2,509
Mid-Willamette	24	0	18	20	120	4	32
North Coast	1	0	13	0	0	30	528
North Willamette	4	258	0	0	0	5	106
Umpqua	2	7	0	0	0	18	600
Upper Rogue	16	5	0	0	0	36	603
Upper Willamette	9	69	10	2	10	13	408
<b>Total</b>	<b>106</b>	<b>815</b>	<b>144</b>	<b>119</b>	<b>1,103</b>	<b>404</b>	<b>8,151</b>

Table 3. Habitat restoration activities, miles affected and restored and volunteer effort by STEP district, 2015-2016. Activities were defined as those projects having at least one participant or volunteer.

**HABITAT**

STEP District	Activities	Miles Affected	Miles Restored	Volunteers			
				Youth	Youth Hours	Adults	Adult Hours
Coos-Coquille	0	0	0	0	0	0	0
Eastern Oregon	0	0	0	0	0	0	0
Lower Rogue	9	73	2	81	168	30	122
Mid-Coast	11	174	62	13	92	76	400
Mid-Willamette	18	35	0	0	0	2	230
North Coast	7	90	0	46	92	9	8
North Willamette	38	78	0	105	495	84	489
Umpqua	3	3	0	54	324	13	88
Upper Rogue	7	1	1	146	155	59	373
Upper Willamette	6	5	1	0	0	0	0
<b>Total</b>	<b>99</b>	<b>458</b>	<b>66</b>	<b>445</b>	<b>1,326</b>	<b>273</b>	<b>1,710</b>

Table 4. Fish culture activities and volunteer effort by STEP district, 2015-2016. Activities were defined as those projects having at least one participant or volunteer; figures in parentheses indicate the number of Fish Eggs-to-Fry classroom incubator projects. For classroom incubation projects, this table reflects only the number of fish reared and released. Participation and volunteer efforts for the classroom incubator program were included under education and development (Table 1).

**FISH CULTURE**

STEP District	Activities	Number of Fish			
		Broodstock Collected	Incubated	Reared	Released
Coos-Coquille	19 (119)	10,274	1,464,971	1,434,829	2,371,143
Eastern Oregon	5 (68)	0	12,000	0	198,850
Lower Rogue	5 (8)	545	169,784	26,892	111,020
Mid-Coast	9 (52)	372	354,268	36,945	394,563
Mid-Willamette	0 (77)	0	23,900	0	23,900
North Coast	15 (18)	327	69,015	266,337	174,254
North Willamette	19 (203)	0	96,000	404,292	489,452
Umpqua	9 (37)	517	28,471	50,787	255,831
Upper Rogue	6 (24)	0	6,700	0	6,500
Upper Willamette	7 (90)	0	10,700	0	145,749
<b>Total</b>	<b>81 (739)</b>	<b>12,035</b>	<b>2,235,809</b>	<b>2,220,082</b>	<b>4,171,262</b>

Volunteers

STEP District	Youth	Youth Hours	Adults	Adult Hours	Total Hours
Coos-Coquille	21	78	82	2,039	2,117
Eastern Oregon	0	0	63	610	610
Lower Rogue	39	292	138	6,199	6,491
Mid-Coast	48	576	226	6,575	7,151
Mid-Willamette	0	0	0	0	0
North Coast	137	3,990	633	13,941	17,931
North Willamette	0	0	88	683	683
Umpqua	70	2,480	159	8,730	11,210
Upper Rogue	0	0	19	157	157
Upper Willamette	109	654	136	2,405	3,059
<b>Total</b>	<b>424</b>	<b>8,070</b>	<b>1,544</b>	<b>41,339</b>	<b>49,409</b>

Figure 1. Number of volunteers who participated in STEP activities, 1981-2016. Values for 1981-1990 and 1993 are estimates. (Note 1: 2016: Due to staff changes and vacancies the total available activities was reduced and some hours/volunteers were not reported.) (Note 2: 1986-1990 and 1993 were updated in 2011 based on discovery of a 1993 report.)

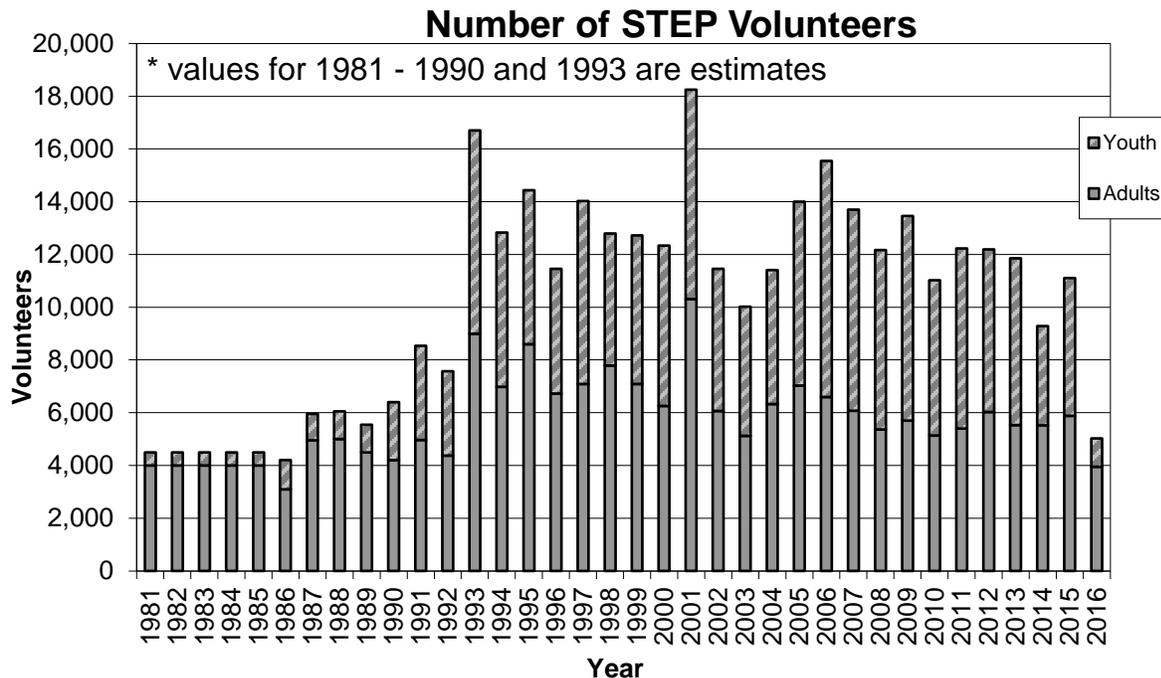
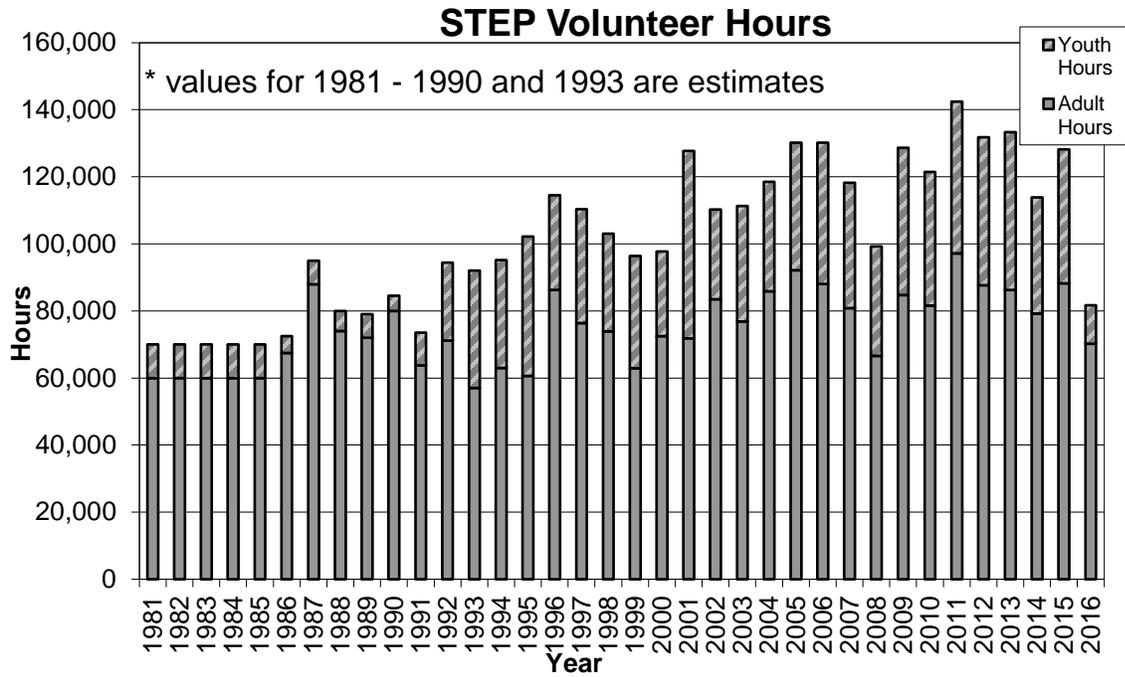


Figure 2. Hours contributed by volunteers towards STEP activities, 1981-2015. Values for 1981-1990 and 1993 are estimates. (Note 1: 2016: Due to staff changes and vacancies the total available activities was reduced and some hours/volunteers were not reported.) (Note 2: 1986-1990 and 1993 were updated in 2011 based on discovery of a 1993 report.)



## INTRODUCTION

### Education and Program Development

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

*FishWorks*, a quarterly newsletter, is published to highlight STEP and R&E Program activities and provides information on upcoming events and the value of projects to fish management.

### Inventory and Monitoring

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.

### Habitat Improvement

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.

KORC program was created to collect and recycle discarded angling line and tackle continued in 2015-2016. Currently, over 100 stations have been installed and are being maintained by volunteers within the fish districts.

## Fish Culture

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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 that, in addition to ensuring the projects are in compliance with other applicable goals, policies, rules, and plans, 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 a 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 hatchbox 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

## Northwest Region

### Lower Willamette STEP

Jeff Fulop, STEP Biologist  
Todd Alsbury, District Fish Biologist  
Tom Murtagh, District Fish Biologist

Lower Willamette STEP 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, forest lands, mountains and wetlands. Fish species include salmon, steelhead, a variety of trout and sturgeon. 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 in fishing, hunting or outdoor viewing enjoyment, while meeting the new demands on the resources associated with rapid population growth and development.

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## **EDUCATION AND PROGRAM DEVELOPMENT**

### Family Fishing Events

STEP coordinated and produced eight Family Fishing Events in the NWWD, continuing the efforts of getting local youth and adults actively involved and interested in fishing. STEP was also responsible for district's popular Free Fishing Weekend fishing event at St Louis Ponds, attended by over 500 youth and adult anglers. With most of the people in the district residing in urban areas, holding these close-in events provides opportunities for participants of all ages to experience the outdoors while discovering that they can remain close to home.

For 2015-2016 the events were held at Canby Pond in Canby, St. Louis Pond in Gervais, Trojan Pond in Rainier, Mt Hood Community College Pond, Shorty's Pond in Molalla, Sheridan Pond in Sheridan, and Commonwealth Lake in Cedar Hills. Family Fishing Events attracted record attendance for a second year in a row with nearly 2,700 adult and youth participants, many of them first-time anglers. Several hundred trophy trout in addition to legal-sized trout were stocked for the events.



Under the guidance of the STEP biologist, volunteer groups including the Association of Northwest Steelheaders (ANWS), ODFW Angler Education Instructors, and members of the angling community provided assistance in teaching kids about fishing, handling their catch and selecting the right equipment, as well as how to interact with the environment. Volunteers also assisted in setting up equipment and provided help at the registration areas. More than 40 volunteers donated over 500 hours of time helping to make these events successful.

### Fish Eggs-to-Fry Program

NWWD 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 2015-2016. An expanding enthusiasm and desire to integrate the program into classroom curriculum again brought several new schools to STEP, with the participation numbers annually exceeding 200 classrooms. These incubation projects hatched eggs and released nearly 86,000 unfed salmon and trout fry into a dozen different STEP-approved lakes, ponds, and streams within the NWWD. Several local chapters of the ANWST, the local OSU Extension Service (4-H), CREST, the Clackamas River Basin Council, OMSI, Oregon Zoo and Reed College sponsored classroom incubation projects in schools around the greater Portland Metro Area. With the tremendous growth of the program, its success would not be possible without the dedication of the many volunteers donating dozens of hours.



## Other Outreach

STEP staff continued to write the angling recreation report for the NWWD, providing updated information to local anglers about all types of fishing opportunities in the area. This report is published weekly on the ODFW website and is one of the most visited destinations on the site.

STEP staff continued to take the lead as author and editor of the NWWD portion of the Spring Fishing Forecast and the Winter Steelhead Fishing Guide both found on the ODFW website, various online publications, and distributed to local media.

STEP staff attended monthly meetings of several local angling groups, keeping this valuable volunteer base aware of upcoming opportunities and issues.

Monthly meetings also provide a venue to show appreciation for volunteer efforts.

STEP staff participated in several outreach activities by attending summer camps, assist at local fishing events, and visiting area classrooms to perform fish dissections or discuss STEP in the schools and career opportunities in the natural resource fields.

STEP staff represented the NWWD at the 2016 Oregon State Fair providing information and updates about ODFW activities and STEP opportunities in the NWWD and around Oregon.



## **INVENTORY AND MONITORING**

### Sandy River Broodstock Collection

STEP, along with the Sandy Chapter of ANWS and other volunteers, assisted NWWD staff performing weir trap monitoring on the Sandy River in an effort to avoid possible vandalism and accidental injury. STEP volunteers also assisted in broodstock collection at the traps along with sorting and passing of wild spring Chinook salmon, steelhead, and Coho, offering over 100 hours of volunteer time to the projects.

## **HABITAT IMPROVEMENT**

### Stream Nutrient Enrichment Program

The 22nd year of the district's stream nutrient enrichment program was completed with cooperation from the Clackamas Hatchery, Sandy Hatchery, the United States Forest Service, and the USFWS Eagle Creek Hatchery. The carcasses are intended to mimic historic run densities of spawning Chinook, steelhead, and Coho salmon in area streams and increase stream nutrient levels for aquatic organisms.

Over 100 youth volunteers and over 75 adult volunteers contributed to the project, placing over 57,000 pounds of steelhead, Coho, and Chinook salmon carcasses in the Sandy River Basin, the Clackamas River Basin, the Lower Columbia River Basin, and the Yamhill River Basin. Volunteers from the ANWS, students from various local schools, SOLV (Stop Oregon Litter and Vandalism), members of the Sandy River Watershed Council and Clackamas River Watershed Council, the NW Flyfishers, and the Confederated Tribes of the Grande Ronde assisted with the carcass distribution effort.

### Line and Tackle Collection

North Willamette STEP now has Keep Oregon Rivers Clean (KORC) stations in place along nine rivers and lakes. These line and tackle collection stations can be found on the Sandy River,

Clackamas River, Blue Lake Park, Herman Creek, St Louis Ponds, Canby Pond, Salish Ponds, Benson Lake, and the Columbia River at Rooster Rock State Park and Dalton Point Park, most maintained through volunteer efforts. In partnership with Portland General Electric two new KORC stations were installed in the summer of 2016 at North Fork Reservoir on the Clackamas River. NWWD STEP is also seeking new opportunities to place KORC stations in additional popular fishing spots within the district.

## **FISH CULTURE**

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### Fish Acclimation Projects

Acclimation facilities have been a key component of fish release strategies in the NWWD 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. Recent improvements in local fisheries can be credited to these acclimation projects and their success can be directly attributed to the efforts of volunteers and the over 680 hours they contributed to the projects this past year.

Since the spring of 2013 an acclimation pond has been operated 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 ANWS. During March and April of 2016 over 93,000 Chinook salmon smolts were acclimated and released from the facility in an effort to improve runs that have been struggling in recent years. As hoped, smolt releases in 2014 returned to the Molalla as adults in spring of 2016 in fairly decent numbers, providing another year of spring Chinook salmon fishing on the river.

The Foster Creek Acclimation Facility continued to be a productive site for STEP. A change in management was made for 2014 at the Foster site. Since survival and return of summer steelhead appeared to be exceptional we increased the number of summer steelhead releases and direct released the spring Chinook smolts in line with the hatchery practices. Over 50,000 summer steelhead smolts were released from Foster Pond, and over 24,000 winter steelhead smolts were acclimated and released into the Clackamas River in the early spring of 2016. The 2016 summer steelhead fishery was one of the most successful seen in years on the river and once again the winter steelhead fishery didn't disappoint. With daily guidance of STEP, volunteers maintained the facility, performed all fish culture activities, and assisted with release. 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. Spring of 2016 marked the eighth year of releases from this site. Feeding and daily maintenance was performed by volunteers from the McLoughlin Chapter of the ANWS who donated over 70 hours to this project. In excess of 106,000 spring Chinook salmon smolts were acclimated and released to provide additional returns of adult spring Chinook to the extremely popular Willamette River and Clackamas River sport fisheries.

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 grant provided by 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. For the 2016 acclimation season these Chinook smolts were once again moved upstream to be raised and released at Eagle Creek National Fish Hatchery in a cooperative effort with US Fish and Wildlife Service. The smolts were maintained at the hatchery by ODFW employees. Future plans are

being discussed, including increased winter steelhead releases.

The Bull Run River Acclimation Facility saw its sixth year of production in 2016 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 by giving the salmon a return destination away from the wild fish sensitive 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 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 over 129,000 spring Chinook smolts released in spring of 2016, with volunteers from the Sandy Chapter of ANWS contributing 192 hours and over 360 miles of travel.

### Broodstock Collection

The collection of broodstock winter steelhead on the Clackamas River and spring Chinook salmon on the Sandy River was completed with assistance from the NW Steelheaders, individual volunteers, and local fishing guides. This project is instrumental in NWWD fish management goals and would not happen without the help of these volunteers contributing over 100 hours of their time.

### Liberation

STEP provided regular back up support for NWWD trout stocking activities in 2015-2016, both by assisting Region fish liberation truck drivers at stocking sites and driving a portable liberation truck, delivering fish directly to local water bodies. The assistance of volunteers was often critical in completing successful stockings at difficult to access locations.

### **Schools and Groups that work with Lower 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.

<p><b>Elementary, Middle, and High Schools</b></p> <p>Ainsworth Elementary School          Alberta Rider Elementary School          Alliance Charter Academy          Alpha HS          Archbishop Howard School          Arleta Elementary School          Astor School          Banks Elementary School          Barlow HS          Barnes Elementary School          Beaver Creek Elementary School          Bilquist Elementary School          Boeckman Creek Elementary School          Bolton Primary School          Boones Ferry Primary School          Boring MS          Bridlemile Elementary School</p>	<p>St. Thomas Moore School          Sunnyside Elementary School          Sunnyside Environmental School          Sunstone Montessori          Stafford Primary School          Stoller MS          Sweetbriar School          SW Charter School          Terra Linda Elementary School          Tom McCall Upper Elementary School          Trillium Creek Primary School          Trost Elementary School          Tualatin Valley Academy          Valley Catholic Elementary School          Verne Duncan Elementary School          View Acres School          Walt Morey MS          Westgate Christian School</p>
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Buckman School	Westridge Elementary School
Carus Elementary School	West Linn HS
Cascade Academy	West Sylvan MS
Catlin Gabel Lower School	West T.V. Elementary
Cedar Oak Park School	Whitford MS
Cehalem Elementary School	Willamette Primary School
City View Charter School	Winterhaven School
Clackamas HS	Witch Hazel Elementary School
Clackamas River Elementary School	Wood MS
Clarkes Elementary School	Woodland Elementary School
Colton MS	Opal Charter School
Cornelius Elementary School	Oregon Trail Academy
Creative Science School	Orengo Elementary School
CREST/West Linn-Wilsonville SD	Patterson Elementary School
Deep Creek Elementary School	Peterson Elementary School
Deer Creek Elementary School	Pioneer Special School
De La Salle N. Catholic HS	Pleasant Valley School
Earl Boyles Elementary School	Portland Waldorf School
Early Learning Community School	Powell Valley Grade School
East Sylvan MS	Poynter MS
Echo Shaw Elementary School	Quatama Elementary School
Emerson School	Rachel Carson Environmental MS
Estacada HS	Raleigh Park Elementary School
Estacada Junior High	Raleigh Hills School
Ewing Young Elementary School	Renaissance School of Science
Farmington View Elementary School	Rex Putnam HS
Faubion School	Reynolds HS
Fir Grove Elementary School	Ridgewood Elementary School
Five Oaks MS	Riverdale Grade School
Floyd Light MS	River Mill Elementary School
Forest Hills Lutheran School	Rosedale Elementary School
Forest Park Elementary School	Sabin-Schellenberg Center
Fowler MS	Salish Ponds Elementary School
Franklin HS	Sandy Grade School
Free Orchards Elementary School	Sauvie Island Academy
Gaffney Lane Elementary School	Scappoose HS
Gladstone HS	Schools Heights Elementary
Gordon Russell MS	Sexton Mtn Elementary School
Greenway Elementary	Sitton Elementary School
Gresham HS	Skyline School
Grout Elementary School	Spring Mtn Elementary School
H.B. Lee Elementary School	Springwater Environmental Sciences School
H.B. Lee MS	St. John Fisher School
Happy Valley Elementary School	St. Paul Elementary School
Harvey Clarke Elementary School	St. Rose School
Hogan Cedars Elementary School	<b>Colleges and Universities</b>
Imlay Elementary School	Mount Hood Community College
Indian Hills Elementary School	OSU 4-H Extension Service

<p>Inza Wood MS          Jackson MS          Jacob Wismer Elementary School          Joseph Gale Elementary School          Ladd Acres Elementary School          LaSalle Prep School          Lee Elementary School          Lenox Elementary School          Lents Elementary School          Lewis Elementary School          Life Christian School          Lillies Pad Learning          Lincoln HS          Lincoln St. Elementary School          Linwood Elementary School          Lowrie Primary School          Mabel Rush Elementary School          MCA Public Charter School          McKinney Elementary School          Meek Pro Tech HS          Miller Education Center          Milwaukie HS          Minter Bridge Elementary School          MITCH Charter School          Molalla River Academy          Molalla River MS          Mt Tabor MS          North Plains Elementary School          Oak Creek Elementary School          Ogden MS          Oregon Episcopal School</p>	<p>Reed College</p> <p><b>Organizations</b></p> <p>Association of Northwest Steelheaders</p> <ul style="list-style-type: none"> <li>• Sandy Chapter</li> <li>• Tualatin Valley Chapter</li> <li>• McLoughlin Chapter</li> <li>• Molalla Chapter</li> <li>• Newberg Chapter</li> </ul> <p>Coastal Conservation Association          NW Flyfishers          S.O.L.V.</p> <p><b>Government</b></p> <p>The Confederated Tribes of Grande Ronde          Metro Parks          City of Fairview          Oregon State Parks          Project YESS          Tualatin Hills Parks &amp; Recreation          US Forest Service          Clackamas County Parks          Weyerhauser Timber Co.          City of Portland/Water Bureau          U.S. Fish and Wildlife Service          Cleanwater Services          Oregon Zoo</p> <p><b>Watershed Councils</b></p> <p>Clackamas River Basin Council          Sandy River Basin Council          Tualatin River Basin Council          Johnson Creek Watershed Council</p>
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**Mid-Willamette STEP**

Karen Hans, 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 (SWWD) 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 a number of 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.

In spite of 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 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 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 not only demonstrates the ability that communities have to assist with the more technical needs of fish recovery but also provides the "hands on" experience that allows for increased awareness and fosters stewardship. 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.

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## **EDUCATION AND PROGRAM DEVELOPMENT**

### Technical Assistance

During this period, the STEP Biologist gave presentations detailing fish resources, management issues and ODFW volunteer opportunities to a variety of interests including: students, teacher 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, providing technical expertise to habitat and inventory 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. During the contract period the STEP Biologist attended 18 meetings, offering technical advice and fishery perspectives on a variety of educational programs and district fish issues.

## Youth Education

Many school districts in the mid-Willamette district send students to outdoor schools and this has provided the STEP Biologist with additional educational opportunities for the program. The STEP Biologist, or STEP volunteers, participated in 15 Outdoor Schools during the school year for students from schools in Peedee, Lebanon, Sweet Home, Philomath, Lyons, Scio, Alesia, Albany, and Salem.

During the summer months, the STEP Biologist hosted learning stations at summer camps hosted by the Girl Scouts, Benton County Parks & Recreation and OSU Forestry.

The STEP Biologist, along with volunteers from the Albany Chapter of ANWS and ODFW Angler Education Instructors hosted 12 fishing events for the Boy Scouts, OSU Extension Service (4-H), Philomath School District, and Luckiamute Valley Charter School. STEP volunteers also assisted with two fishing events for the Wounded Warriors Project and their families. The events were organized by the Mid Valley Chapter of the Association of NW Steelheads and STEP coordinated volunteers from ODFW's Angler Instructors Program to assist.

At summer camps with a fishing station, students catch trout and sunfish, and learn about catch and release techniques. At outdoor schools with fish biology stations, students learn about fish anatomy, physiology, environment adaptations, habitat needs, watershed process, and challenges posed by humans to fish and their habitat. One of the most popular activities at outdoor school is fish dissection. The students share a juvenile steelhead or salmon to dissect and learn the internal and external anatomy and physiology of the fish.

The STEP Biologist also teaches watershed process to students at outdoor schools or at their schools. Two camp facilities have in-ground "river boxes" or a portable stream table is brought to the school to show how stream systems function.

One of the STEP Biologists most popular activities are fish dissection at district area elementary, middle, and high schools. Steelhead smolts and mini jack salmon from the South Santiam Hatchery are frozen individually each year and are then used for the dissections. Students work in teams to dissect the fish. Volunteers from the ODFW's Angler Education Program and the Mid Valley Chapter of ANWS 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 osmoregulate 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.



During this reporting period, the STEP Biologist and volunteers hosted fish dissections at 11 elementary, middle school, high school classes, and a Family Science Nights in the district. At the 2016 Family Science Night, held at Yoshikai Elementary School in Salem, the fish dissection station was voted the best activity at the event.

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 5<sup>th</sup> through 12<sup>th</sup> 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 participates in several field trips each year. In 2015 and 2016, the STEP Biologist attended 7 Steering Committee meetings, hosted 4 Salmon Watch outreach events, assisted with two trainings, and hosted the Fish Biology station for 6 Salmon Watch field trips.



In order to best serve teachers and students, STEP educational materials need to be updated and revised to relate to the Next Generation Science Standards. The STEP Biologist worked with members of the Salmon Trout Advisory Committee, and teachers and students from Western Oregon State University to revise the Egg to Fry Manual and other educational resources guides. The STEP Biologist also attends Natural Resource Educators meetings for the Salem and Corvallis School Districts and the Benton Co Parks and Rec Outdoor Education Committee. In all, the STEP Biologist attended 9 education related meetings.

## **INVENTORY AND MONITORING**

### Fish Populations and Their Habitat in Streams

STEP again led the district's small stream sampling effort with fish surveys and hoop traps. These efforts involved students from local schools and district area landowners. The primary intent of this program has been to document the presence of cutthroat trout in waters where little or no fish information exists and to get a sense of relative abundance. However, additional benefits from the program come from raised awareness for the "little brown fishes" in the area and educational opportunities for students.



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 traps and surveys will be used in the future to plan habitat restoration projects.

### Jane Goodall Environmental Middle School

In the Salem area, students from Jane Goodall Environmental Middle School assisted the STEP Biologist to sample local streams with seine nets and electroshocking. For this ongoing study, students collected fish, macroinvertebrate, and habitat data on a restored section of Waln Creek in Salem. Data from the sampling efforts will be used to produce a fish presence report on Salem area streams. The report will be made available to City, County, and State Agencies, as well as citizen groups and watershed councils.

### Cutthroat Trout Surveys in the Long Tom River

STEP also partnered with the Long Tom Watershed Council on a study of cutthroat trout in five Long Tom River Basin sub-watersheds. The study, funded by a Fish Restoration and Enhancement Program grant, is investigating the movements of cutthroat trout in Rattlesnake, Schafer, Ferguson, Bear, and Owens Creeks by capturing fish then monitoring their movements

around the basins with active capture methods, such as trapping, and with array stations. Data collected will also provide information on growth, survival, and population numbers. While the active capture phase of the study has ended, the movements of the tagged cutthroat trout are still being monitored with 4 array stations around the Long Tom River Basin.

## **HABITAT IMPROVEMENT**

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### 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.

During 2015-2016, the STEP Biologist attended 11 site visits to offer technical and grant seeking advice to landowners throughout the district. The STEP Biologist provided technical advice to the USFWS, US Forest Service, Bureau of Land Management, as well as the Calapooia, Luckiamute, North Santiam, South Santiam, Long Tom, Rickreal and Mary's River Watershed Councils on the fish passage and habitat restoration projects.

### 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, fish are placed in five different rivers and streams in the district. This past year, salmon and steelhead carcasses that were used as brood for programs at the Foster Fish Collection Facilities were again placed in the South Santiam and Calapooia basins.



Due to treatment by a new antibiotic, no Chinook salmon from the Minto Fish Collection Facility were distributed to the North Santiam Watershed and only male salmon could be distributed to the South Santiam River Basin. This greatly reduced the pounds of fish out-planted for nutrient enrichment to the two river basins. Volunteers from STEP, the Mid Valley Chapter of NW Steelheads, Oregon State University, and staff from the USFS and US Army Corps of Engineers contributed 56 hours toward carcass enrichment efforts in the mid-Willamette district. In all, over 929 spring Chinook salmon (18,580 lbs.) and 244 (2440 lbs.) summer steelhead carcasses were distributed to the 17 miles of the South Santiam and Calapooia Rivers and their tributaries.

### Fishing Line Collection Stations

Since 2004, volunteers in the Mid-Valley 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, Fishermens 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 EE Wilson Pond.

## **FISH CULTURE**

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ODFW fish propagation programs in the Mid-Willamette basin have evolved greatly over the last decade. 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 ESA, 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.

### 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 a large number of 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. During this period, 60 classrooms raised 16,900 spring Chinook salmon and 25 classrooms raised 7,000 rainbow trout.

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, members of the ODFW's Angler Education Instructors, and Mid Valley Chapter of ANWS provide invaluable assistance with the classroom egg incubation program. These volunteers have recruited and "adopted" a number of 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. The ODFW's Angler Education Instructors have been particularly active in the Salem and Corvallis areas where, with financial assistance from a STAC Mini Grant, they have placed incubators in area schools.

Spring Chinook salmon fry were released into the Willamette, North Santiam, South Santiam, and Calapooia River Basins. Rainbow trout are released at a number of selected locations scattered throughout the 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 Mid-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.

<p><b>Elementary, Middle, and High Schools</b></p> <ul style="list-style-type: none"> <li>Ashbrook Independent School</li> <li>Albiqua Independent School</li> <li>Bethany Charter</li> <li>Blodgett Elementary</li> <li>Calapooia Middle School</li> <li>Cascade High School</li> <li>Central High School</li> <li>Central Linn Elementary</li> <li>Chapman Hill Elementary</li> <li>Cloverdale Elementary</li> <li>Community Roots Montessori School</li> <li>Crescent Valley High School</li> <li>Franklin School</li> <li>Jefferson Elementary</li> <li>Jefferson Elementary Corvallis</li> <li>Jefferson High School</li> <li>Kalapuya Elementary</li> <li>Kings Valley Charter</li> <li>Luckiamute Valley Charter School</li> <li>Lebanon High School</li> <li>Liberty Elementary</li> <li>Monroe Elementary</li> <li>Monroe High School</li> <li>North Albany Elementary</li> <li>North Albany Middle School</li> <li>North Salem High School</li> <li>Oak Grove Elementary</li> <li>Philomath High School</li> <li>Pratum Elementary</li> <li>Pringle Elementary</li> <li>Riverview Elementary</li> </ul>	<ul style="list-style-type: none"> <li>Riviera Christian School</li> <li>Santiam Christian School</li> <li>Schirle Elementary</li> <li>Seven Oak Middle School</li> <li>Silver Crest School</li> <li>Stayton Middle School</li> <li>Turner Elementary</li> <li>Whitworth Elementary</li> <li>Wilson Elementary</li> </ul> <p><b>Colleges and Universities</b></p> <ul style="list-style-type: none"> <li>Chemeketa Community College</li> <li>Oregon State University</li> </ul> <p><b>Organizations</b></p> <ul style="list-style-type: none"> <li>Association of Northwest Steelheaders <ul style="list-style-type: none"> <li>• Mid Valley Chapter</li> <li>• Salem Chapter</li> </ul> </li> <li>Keizer Boys &amp; Girls Club</li> <li>Salem Boys &amp; Girls Club</li> <li>Camp Taloali</li> <li>Salmon Watch</li> </ul> <p><b>Government</b></p> <ul style="list-style-type: none"> <li>Polk County Soil and Water</li> <li>Benton County Soil and Water</li> </ul> <p><b>Watershed Councils</b></p> <ul style="list-style-type: none"> <li>Calapooia Watershed Council</li> <li>Long Tom Watershed Council</li> <li>Luckiamute Watershed Council</li> <li>Marys River Watershed Council</li> <li>North Santiam Watershed Council</li> <li>South Santiam Watershed Council</li> <li>Rickreall Creek Watershed Council</li> </ul>
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## Upper Willamette STEP

Katherine Nordholm, STEP Biologist  
Kelly Reis, 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. The major river systems in the district are the Coast Fork Willamette, McKenzie, and Middle Fork Willamette. 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 trout, cutthroat trout, 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 a number of High Cascade Lakes to provide unique, often remote, fisheries. Spring Chinook salmon and bull trout are federally listed as “Threatened” under the Endangered Species Act.

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.

While the STEP volunteer base draws largely from local organizations, including the McKenzie Flyfishers, Cascade Family 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 attends meetings and make presentations to organizations, schools and universities, and other agencies to facilitate the free flow of information, answer questions, solicit ideas for new STEP projects, and recruit additional STEP volunteers.

The Upper Willamette STEP biologist would like to recognize the staff from Leaburg Hatchery, McKenzie Hatchery, Willamette Hatchery, and Dexter Hatchery for their dedication to working with STEP. Their support and assistance is vital for the success of many projects.

## **EDUCATION AND PROGRAM DEVELOPMENT**

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### Technical Assistance

The STEP Biologist served on the Coast Fork Willamette Watershed Council’s Technical Committee tasked with providing technical expertise for projects sponsored by the Council.

The STEP biologist served on the Lane County Salmon Stewards Steering Committee, which, in partnership with McKenzie Watershed Council, provides experiential environmental education to over 1,000 local students each year through the Salmon Watch<sup>®</sup> program. The committee consists of representatives from Bureau of Land Management, Forest Service, Eugene Water and Electric Board, local school districts, and other area organizations.

STEP staff provided professional opinion on fisheries benefits of several proposed restoration projects and land acquisitions for partner agencies and non-governmental organizations.

### Youth Education

STEP staff and volunteers hosted three Family Fishing events located in Cottage Grove and Eugene. These events provided families with the chance to check out a fishing rod, obtain instructions on casting, and to catch one of the many trout that were stocked in each of the locations. These events continue to become more popular and repeat participants are seen each year. The third event, held at Eugene’s Alton Baker Park, occurred on Free Fishing Weekend.

STEP staff participated in a number of Salmon Watch field trips this year at Carmen Smith Spawning Channel along the McKenzie River and Whittaker Creek in the Siuslaw River basin. During these field trips, local students learn about salmon ecology, including lessons on

macroinvertebrates, riparian zones, water quality, and salmon biology. The STEP biologist led volunteer training for the salmon biology station at both training events held this year.

STEP staff organized and held two educational fishing workshops for The Arc Families Connected Summer Recreation Co-op. This group is part of eight family networks set up in the state to help families who are raising a child with a disability. At each workshop, families had the opportunity to tour Leaburg Hatchery, watch trout stocked in to Leaburg Lake, learn about fishing and receive fishing instruction from STEP and Angler Education volunteers. Finally, the students had an opportunity to angle for fish in Leaburg Lake. STEP provided equipment, volunteers, instructions, and a fish cleaning station. ODFW staff from Leaburg Hatchery were also involved with these events.



The STEP biologist led the planning, coordination, and supervision of two interns this year, a winter intern from Northwest Christian University and a summer inter from Oregon State University. The interns participated in fish stocking, educational activities, fish monitoring, and general district work throughout their internships.

### Program Outreach

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

- Boy Scout Leaders Round Table – Fishing Regulations and Opportunities
- McKenzie River Trust - Living River Celebration
- McKenzie Watershed Council - Salmon Celebration
- Lane Community College – Water Careers Class
- Travel Lane County Kid’s Adventure Club
- Row River Outdoor School
- Elizabeth Page Elementary Outdoor School
- Public Workshop - How to Fish For Trout in Oregon
- Macro Field Sessions – Middle Fork Willamette River Watershed
- Macro Field Sessions – Agnes Steward Middle School



## **INVENTORY AND MONITORING**

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### Fish Surveys

STEP staff and volunteers worked on multiple monitoring projects over the year. Staff and a volunteer from Weyerhaeuser conducted spring Chinook spawning ground surveys on Gate Creek, a tributary to the McKenzie River.

### High Cascade Lakes Sampling

During the summer of 2016, staff, an OSU intern, and a volunteer, used gillnets and hook and line sampling to determine fish survival stocked in to four High Cascade Lakes. Additional information was recorded on amphibian populations.

### Other Inventories

STEP staff, an OSU intern, and two volunteers participated in sampling on the Coast Fork Willamette River and tributaries throughout the spring and summer. The sampling was to

determine the species composition and distribution of fish in those systems. Additionally, specimens and genetic samples of native fish were collected for the Oregon State Ichthyology Collection (OSIC).

STEP staff and eight volunteers, including two youth, assisted an OSU PhD candidate in setting minnow traps in the Coast Fork drainage. ODFW's purpose in sampling was to investigate the extent of a newly observed species of invasive crayfish. The ringed crayfish were observed below Wildwood Falls on the Row River. Additionally, specimens of ringed and native crayfish were collected by the OSU student for analysis on the establishment of invasive species using ecological stoichiometry.



## **HABITAT IMPROVEMENT**

### Carcass Placement

STEP volunteers worked with Willamette and McKenzie Hatchery staff to place carcasses for stream enrichment. Over 1,125 adult carcasses totaling nearly 13,500 pounds were distributed into the main stem McKenzie River and spawning tributaries. Additionally, STEP volunteers from the Coastal Conservation Association and Weyerhaeuser placed approximately 920 carcasses to Little Fall Creek in the Middle Fork Willamette basin and Mosby Creek, on the Row River.

## **FISH CULTURE**

### Classroom Egg Incubator

Approximately 11,000 spring Chinook salmon eggs were incubated in 91 classroom aquariums in 44 different schools as part of the Classroom Incubator Program. The unfed fry were released in December, primarily at Alton Baker Canoe Canal in Eugene.

### McKenzie River Trout Stocking

Staff and volunteers worked with the McKenzie River Guides Association and local hatcheries to stock over thirty river miles of the McKenzie River with legal-sized rainbow trout. The guides navigate an ODFW stocking boat downriver while a volunteer nets fish into the river. Nearly 98,000 legal and larger rainbow trout were released during boat stocking.

### High Cascade Lakes Backpack Stocking

This popular program provides an opportunity for volunteers to stock fingerling trout into 47 of our High Cascade Lakes using backpacks. Participants provide their own packs, which staff line with double-thickness plastic bags. The bags are filled with water, ice, young fish and extra oxygen before being sealed with duct tape. Volunteers then head to the trailheads and hike from 0.1 to 4 miles one-way to deliver the trout to the lakes. This one-day event provides families with an outside experience visiting our mountain lakes, as well as achieving our stocking goals for the year. STEP, district, and hatchery staff from Leaburg and Willamette hatcheries helped 109 youth and 132 adult volunteers packed in more than 29,000 fingerling trout for the program this year.

## **Schools and Groups that work with 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.

<p><b>Elementary, Middle, and High Schools</b></p> <p>Adams Elementary          Agnes Stewart Middle School          Arts and Technology K-8          Awbrey Park Elementary School          Bailey Hill Instructional Center          Briggs Middle School          Buena Vista Elementary          Cal Young Middle School          Camas Ridge Elementary          Cascade Middle School          Centennial Elementary          Cesar E Chavez Elementary          Charlemagne Elementary          Churchill High School          Coburg Community Charter School          Corridor Elementary          Cottage Grove High School          Creswell High School          Dorena School          Dos Rios - Two Rivers Elementary School          Edgewood Elementary          Edison Elementary          Elizabeth Page Elementary          Family School          Fern Ridge Middle School          Gateways High School          Gilham Elementary          Guy Lee Elementary          Hamlin Middle School          Holt Elementary          Howard Elementary          Kalapuya Middle School          Kelly Middle          Kennedy Middle          Laurel Elementary          Lowell Elementary School          Maple Elementary          McCornack Elementary          McKenzie Middle/High School #68          eadowview Elementary Mohawk High School          Mt. Vernon Elementary          Network Charter School</p>	<p>River Road Elementary          Riverbend Elementary          Roosevelt Middle School          Shasta Middle School          Sheldon High School          South Eugene High School          Spencer Butte Middle          Spring Creek Elementary          Springfield Middle School          Thurston Middle          Twin Oaks Elementary          Unity School          Village School          Walterville Elementary          Willagillespie Elementary          Willakenzie Elementary          Willamette High School          Willamette Leadership Academy          Yolanda Elementary          Yujin Gakuen Elementary</p> <p><b>Colleges and Universities</b></p> <p>Lane Community College          Northwest Christian University          Oregon State University</p> <p><b>Organizations</b></p> <p>American Fisheries Society          Association of Northwest Steelheaders</p> <ul style="list-style-type: none"> <li>• Emerald Empire Chapter</li> </ul> <p>Backcountry Horsemen          Boy Scouts of America          Cascade Family Flyfishers          McKenzie Flyfishers          McKenzie River Guides Association          McKenzie River Trust          Salmon Stewards of Lane County          Travel Lane County          Trout Unlimited: Redside Chapter          World Salmon Council</p> <p><b>Government</b></p> <p>Bureau of Land Management          City of Springfield          City of Eugene          Eugene Water and Electric Board          Lane County          US Forest Service</p>
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North Eugene High School Oakley Middle School Oakridge Elementary School Pleasant Hill High School Prairie Mountain School Ridgeline Montessori Ridgeview Elementary	Willamalane Park and Recreation District <b>Watershed Councils</b> Coast Fork Willamette Watershed Council McKenzie Watershed Council Middle Fork Willamette Watershed Council
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**North Coast STEP**

Ron Rehn, STEP Biologist  
 R Mike Sinnott, Assistant District Fish Biologist  
 C Robert Bradley, District Fish Biologist

The North Coast STEP area includes all of 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 fifteen 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. The area also has a growing classroom egg incubation program involving students from seven school districts. Staff works closely with a number of watershed councils, educators, angling groups, and civic organizations throughout the district.

**EDUCATION AND PROGRAM DEVELOPMENT**

Education and Outreach

Other outreach and educational activities that occurred this year included: exhibits at the, Vernonia Schools Salmon Watch, Tillamook School Salmon Watch, presentations to the North Coast Chapter of ANWS, and Tillamook County Children’s Clean Water Festival. 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 525 students that participated in these events.

Fish Eggs-to-Fry Program

The North Coast STEP classroom incubator program this year involved delivering eggs and giving presentations to students in 18 classrooms representing 12 schools, elementary through high school, the Bay City Public Library, and the Tillamook Forest Center. These programs participated in the hatching and releasing of spring Chinook salmon, fall Chinook salmon, winter

steelhead, and summer steelhead fry into approved streams. Approximately 511 students were involved in this program.

### Family Fishing Events

During this reporting period, 522 people participated in North Coast Watershed District (NCWD) Family Fishing Events and other organized fishing events. The Tualatin Chapter of ANWS provides many of the volunteers that assist the NCWD STEP program in providing guidance in basic fishing skills at these events.

The Tillamook Angler's Disabled Angler Fishing Day had approximately 405 people with disabilities participate in this year's event. Individuals with disabilities from across the state come to the Whiskey Creek Hatchery to enjoy a day of fishing, fun, and a BBQ.

## **INVENTORY AND MONITORING**

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### Temperature Monitoring

The Salmonberry STEP 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, Rainland Flycasters, Sierra Club, and Trout Unlimited since 1993 to carry out these monitoring projects. Thirty volunteers from the Salmonberry STEP Monitoring Project donated 528 hours last year.

### North Fork Nehalem Winter Steelhead Project

We continue with Phase 2 of the North Fork Nehalem Winter Steelhead Project evaluating the relationships between hatchery steelhead juvenile release location (hatchery volitional vs. two in-river sites) and subsequent adult catch by sport anglers. This effort is exploring options at improving catch rates throughout the river. For this, existing winter steelhead hatchery production has been divided into three unique fin-clipped groups that were released as yearling smolts at three different points along the river (i.e. Hatchery, County Line, and Aldervale). Now that these groups are returning as adults, we use creel surveys to evaluate their relative contribution to sport catch throughout the return period. Marking started with the 2011 brood that was released in 2012.

Creel surveys began with the 2014-15 return year and have received funding through an ODFW Restoration and Enhancement Grant to continue through the 2016-17 return year. The creel survey follows an access-access design where both catch and effort will be estimated using access-based surveys.

Data is recorded on the origin (i.e., stocking locations) and number of fish harvested and released as well as the amount of time each angler fished. Total catch of each group of fish is estimated by dividing the observed catch by the sampling probability providing valuable information on catchability of these fish.

Differences in catch among each release group are modeled using multinomial logistic regression. Model selection methods are used to test for differences in catch among each group as well as effects of other covariates such as date, location of catch, and discharge. Stray rates relative to release location will also be documented where possible. Preliminary analysis of



data from both years showed poor contribution of the lower release groups in the lower river fishery. However, this is only one year of data and more information is needed to adequately evaluate performance of these groups. Results from this work will help inform hatchery steelhead management in other basins.

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## **HABITAT IMPROVEMENT**

### Stream Nutrient Enrichment

As part of the ODFW stream nutrient enrichment program the STEP Biologist and other NCWD staff directed and assisted volunteers in the distribution of over 114,617 pounds of fish carcasses into 89.5 miles of north coast rivers and streams from the Little Nestucca to the lower Columbia River tributaries to benefit salmonids and other species.

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## **FISH CULTURE**

### Volunteer Hatchery Programs

The Tillamook Anglers continue to operate Whiskey Creek Volunteer Hatchery, releasing approximately 90,117 spring Chinook salmon smolts and an additional 93,243 fall Chinook salmon fry into the Trask River. A storm last December destroyed the Miami Anglers Hatchbox facility on Minich Creek. Due to the upcoming termination of unfed fry programs on the North Coast as identified in the Coastal Multispecies Conservation Plan they will not rebuild. The unfed fry releases conducted by the Tillamook and Miami Anglers in February of 2016 officially ends the unfed fry Hatchbox program on the North Coast. The Nestucca Anglers also continue to operate Rhoades Pond, releasing 108,354 fall Chinook salmon smolts into Three Rivers and the Nestucca River.



This year, the Wild Winter Steelhead Broodstock Collection Programs continued on the Nestucca and Wilson Rivers, and wild fall Chinook salmon on the Nestucca River. Forty-four volunteer anglers participated in these programs, collecting 327 wild fish to be used as broodstock by ODFW hatcheries.

### High School Hatcheries

Astoria High School's hatchery program released 2,540 Coho salmon and 16,857 Chinook salmon presmolts into Young's Bay. Warrenton High School's program released 4,113 Coho salmon, 16,867 Chinook salmon, and winter steelhead presmolts into Skipanon River.

### Rhoades Pond Upgrades

Nestucca Anglers completed making upgrades and improvements to their STEP facility at Rhoades Pond. During this report period the Nestucca Anglers received two STAC mini-grants each for \$2,000 and replaced the domestic pump house and to make upgrades to the facilities electrical systems. During the fall of 2015 the old residence at Rhoades Pond was demolished.

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## **Schools and Groups that work with North Coast 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.

<p><b>Elementary, Middle, and High Schools</b></p> <p>Astoria High School  Broadway Middle School  East Elementary  Hilda Lahti Elementary  Jewell Elementary  Lewis &amp; Clark Elementary  Mist Grade School  Neahkahnie Middle School  Neahkahnie Elementary  Seaside Heights Elementary  Tillamook Jr High  Tillamook High School  Vernonia Schools  Warrenton High School  Washington Elementary</p> <p><b>Organizations</b></p> <p>Association of Northwest Steelheaders</p> <ul style="list-style-type: none"> <li>• Tualatin Valley Chapter</li> <li>• North Coast Chapter</li> </ul>	<p>Rainland Fly Casters  Rockaway Lions Club  Nestucca Anglers  Tillamook Anglers  Twin Rocks Friends Camp  WarHF, Inc.</p> <p><b>Government</b></p> <p>Oregon Dept. of Forestry  US Fish &amp; Wildlife Service</p> <p><b>Watershed Councils</b></p> <p>CREST</p> <p>Ecola Creek Watershed Council  Lower Nehalem Watershed Council  Necanicum Watershed Council  Nestucca Watershed Council  Nicolai-Wickiup Watershed Council  Skipanon Watershed Council  Tillamook Bay Watershed Council  Youngs Bay Watershed Council  Tillamook Estuaries Partnership  Bay City Library  Tillamook Forest Center</p>
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**Mid Coast STEP**

Christine Clapp, STEP Biologist  
Derek Wilson, Assistant District Fish Biologist  
John Spangler, District Fish Biologist

The Mid Coast District includes coastal watersheds from the Salmon River (Cascade Head) to Tahkenitch Lake, extending from headwater streams on the western slope of the Coast Range to their estuaries. This includes several large rivers including the Salmon, Siletz, Yaquina, Alsea, and Siuslaw. 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, 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.

Christine Clapp has lead responsibility for STEP program activities on the Mid Coast. The Mid Coast program works with volunteer groups, local schools, non-profit organizations, and state agencies on a variety of projects focused on fisheries management and watershed conservation through monitoring, education, restoration and propagation. 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, Boy Scouts of America, the Angell Job Corps, Community Services Consortium, Career Tech High School, and others.

Mid Coast volunteers work with district staff on a variety of projects. Education and outreach are important features of the Mid Coast STEP, and these programs continue to grow each year. Mid Coast STEP also assists with fish population monitoring through the operation of six fish traps and estuary seining in the Siletz, Yaquina, Alsea and Siuslaw rivers. Habitat restoration and angler access improvement projects are also important components of the Mid Coast STEP, fostering partnerships with private industry, state and federal agencies, watershed councils, local interest groups, fishing clubs, landowners and volunteers. The Mid Coast District also includes one of the oldest STEP propagation programs in the state, and fish culture programs continue to attract many passionate volunteers who assist with district harvest objectives.

## **EDUCATION AND PROGRAM DEVELOPMENT**

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### Fish Eggs to Fry Program

During the 2015-2016 school year, the Egg-to-Fry program was active in 44 classrooms representing 15 schools (preschool-12), two state park visitor's centers, three after-school programs, two public libraries and one home school group. Biologists and volunteers use the Fish Eggs to Fry program to teach students about salmon and trout life-cycles, habitat requirements and natural resource stewardship. Volunteers and staff train classroom and field assistants, deliver and maintain equipment, transport eggs, lead presentations and field trips, and coordinate with hatchery staff. During the 2015-2016 Egg to Fry season, one high school intern also mentored 5 classrooms and assisted with classroom presentations and field trips.

The Egg to Fry program includes an introductory classroom presentation with egg delivery and habitat/watershed needs after incubation, along with a fry release field trip. Many of these field trips are provided by a partnership between ODFW and the Oregon Parks and Recreation Department (OPRD), whose park rangers organize and host full day field trips at Beverly Beach State Park for participating classrooms throughout the county. Other participating teachers organize independent outdoor school days for fry release. Field trips include several education stations where students learn about aquatic food webs, water quality, fish habitat, watershed functions, and salmon biology through adult steelhead dissections. Dissections provide a comparative, hands-on approach to understanding salmonids and their habitat and life cycle requirements by learning about their anatomy and physiology. In 2012, the Lincoln County School District adopted the Fish Eggs to Fry Program as part of their Ocean Literacy Initiative and designated it as core curriculum for all Lincoln County 3<sup>rd</sup> graders.

### Family Fishing

Volunteers led seven successful family fishing events on the Mid Coast at Devil's Lake, Olalla Reservoir (twice), Eckman Lake, Cleawox Lake, Thissell Pond and the Lhuuke Illahee Fish Hatchery near Siletz. These 7 events had more than 900 youth participants and 730 accompanying adults. More than 150 volunteers, including high school and college students, contributed over 1280 hours to make these events successful. Mid Coast volunteers also spent a substantial amount of time fixing fishing equipment and putting together new fishing poles for events and after-school locations. The Emerald Empire Chapter of the Association of Northwest Steelheaders also led fishing events for veterans and kids with cancer, and Florence STEP taught angler education programs to Boy and Girl Scouts at Cleawox Lake. Mid Coast STEP also provided fish and angling equipment for the annual Siletz Tribe Culture Camp week, where youth spend a week each summer learning about their tribal heritage and fishing for trout in the afternoons.

### Other Education Activities

Four Oregon State University students were mentored as ODFW interns, assisting with trap operations and learning about fisheries management. Three interns worked at the Alsea Hatchery during spring term, and one intern worked for the Mid Coast District at large during both winter and summer breaks, gaining hands-on experience in a variety of district activities. Two high school students also completed internships with the Mid Coast STEP, assisting with the Fish Eggs to Fry Program, Family Fishing Events, field trips, trap operations, habitat projects, and outreach events.

Mid Coast STEP continued to support the Schooner Creek GLOBE long term monitoring program, leading field activities in the fall and spring for comparative studies of river health, channel dynamics, and aquatic and riparian communities with 5<sup>th</sup> grade students from Taft Elementary. The STEP Biologist also taught a teacher workshop during the Coastal Learning Symposium to introduce teachers to the resources available through ODFW and teach them how to lead watershed activities with their students, with or without the help and support of STEP.

Mid Coast STEP remains active with the Drift Creek Outdoor School, teaching aquatic science, angler education, and orienteering and mapping sessions for students. The Mid Coast STEP Biologist also led trap training and orientation for the Longview Hills Fishing Club and Community Services Consortium's natural resource crew high school students who operate the South Fork Schooner Creek fish trap twice per week from October to May. Volunteers also led and/or assisted the STEP Biologist with field trips to Big Creek, Jeffries Creek, and Crowley Creek for 3<sup>rd</sup> grade students participating in the Egg to Fry Program. Students learned about watersheds and river features and functions by exploring and sometimes surveying the creeks, and they also dissected an adult steelhead and sampled macro-invertebrates to learn about salmon biology, aquatic food webs and water quality. Mid Coast STEP led a similar field trip for a Hatfield fisheries camp at Schooner Creek. Florence STEP also hosted a watershed camp for students in the Siuslaw school district, as well as 36 fisheries and watershed based field trips in the Siuslaw Basin.

### Outreach Activities

Volunteers represented STEP at several boat and sportsmen's shows throughout the year, fundraising for Mid Coast STEP projects and recruiting new volunteers. Volunteers also planned and hosted two salmon derbies in Lincoln County, and assisted the Waldport Chamber of Commerce with their first annual Alsea Salmon Derby in Waldport. The Mid Coast STEP Biologist also led a field trip to the Siletz fish trap for the Newport Senior Center and met with educators throughout Lincoln County to discuss partnership and high school internship opportunities.

Mid Coast STEP continues to operate and advertise the aquatic science reference library and four youth fishing libraries in Lincoln County where kids can check out free fishing equipment and backyard bass for up to two weeks. The aquatic science reference library contains books about fish biology and ecology, watershed function, stream hydrology and ecology, and fish and macroinvertebrate identification to use for ODFW and Lincoln County School District education programs, and to loan to volunteers who are interested in learning more about freshwater science and salmonids.

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## INVENTORY AND MONITORING

### Population Monitoring

Volunteers helped monitor fish populations at several fish traps including South Fork Schooner Creek, Salmon River Hatchery, Siletz Falls in the Siletz basin, Drift Creek and N. Fork Alsea in the Alsea basin, Munsel, Letz, and Whittaker creeks in the Siuslaw Basin, and Little Woahink Creek trap in the Siltcoos basin. District staff coordinated, trained and assisted volunteers in fish trap operations including correct fish handling, species and gender identification, accurate data recording, and safety procedures.

Volunteers (including a high school natural resource crew) handled all trap operations on South Fork Schooner Creek and assisted with various trap maintenance projects throughout the season. These trap operations provide essential information on fish returns and stray rates for district management. The Angell Job Corps masonry program through the USFS also repaired part of the fish ladder at the Siletz Falls trap after a winter storm blew out some of the steel and concrete framing and supports.



The four OSU interns hired this year mostly assisted with trap operations on the North Fork Alsea River and Siletz River. Our Mid Coast district summer intern also assisted with broodstock collection and estuary seining to monitor juvenile Chinook salmon in the Siuslaw, Alsea, Yaquina and Siletz Rivers. STEP volunteers also assisted the Marine Resources Program with hook and line surveys in the marine reserves, and Depoe Bay Salmon Enhancement Commission volunteers completed spawning surveys on North Depoe Bay Creek.

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## HABITAT IMPROVEMENT

### Habitat Improvement

The STEP Biologist continued to manage the Riparian Lands Tax Incentive Program for the Mid Coast, checking compliance of enrolled properties and encouraging landowners to protect their riparian habitat for the benefit of fish and wildlife. With help from volunteers and interns, the STEP Biologist implemented a culvert replacement on Starr Creek (Alsea) to restore anadromous fish passage. A Mid Coast intern also helped the STEP Biologist electrofish Benner Creek (Alsea) in order to salvage fish prior to the removal of a perched culvert and installation of a bridge. Mid Coast volunteers also placed donated Christmas trees collected by Dahl Disposal into tidal channels along the lower Yaquina River to enhance rearing and refuge habitat and increase aquatic insect production for juvenile fish. In addition, 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 with River clean-up events on the Siletz and Alsea rivers, removing thousands of pounds of garbage from approximately 100 river miles.



### Nutrient Enrichment

16,920 pounds of steelhead along with a few Coho and Chinook carcasses were placed into approximately 60 river miles.

## Angler Access

The Alsea Sportsman's Association and the Albany Chapter of the Association of Northwest Steelheaders (ANWS) continue to maintain and improve boat ramp facilities and other river access areas on the Alsea River. The Albany Chapter of the ANWS also completed improvements to Missouri Bend Park funded through ODFW's Restoration and Enhancement Program.

## **FISH CULTURE**

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### Broodstock Collection

Volunteer anglers assisted with wild winter steelhead broodstock collection programs on the Alsea and Siletz Rivers. Angler-caught fish contributed about 30 percent to the total number of broodstock collected this year. The other 70 percent were collected from adult fish traps by staff, volunteers and interns 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 staff, volunteers, and interns also collected hatchery summer steelhead from the Siletz River. Hatchery broodstock are taken from the Siletz trap and transferred to Cedar Creek Hatchery for spawning.

The Mid Coast STEP Biologist 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 smolt goal), ODFW staff and volunteers transported eggs and milt collected by volunteers at the Whittaker trap to the Alsea Hatchery for fertilization and incubation, and then transported those eyed eggs to Willamette Hatchery for rearing. For the upper basin release at Letz Creek (15,000 smolt goal), volunteers collect, spawn, fertilize, incubate, and rear fish to smolt stage all at the project site. The Florence STEP group also spawned 2 pairs of Coho salmon at the Munsel Creek trap for a small educational program at the Florence STEP hatchery, where they incubate eggs and rear fish prior to releasing them into Munsel Lake at parr stage.

### 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 (10,540) and Whittaker Creek (45,725). The Emerald Empire Chapter of ANWS also moved 11,470 fin-clipped pre-smolts to a rearing pond near Letz Creek and held them over winter for release in the spring.

The Longview Hills Fishing Club, Angell Job Corps, Community Services Consortium's (CSC) natural resource crew students, and other STEP volunteers operated an acclimation site at Palmer Creek in the Siletz basin for 44,800 winter steelhead smolts. Volunteers camped on-site for 10 days, cleaning screens and feeding fish daily. Community Services Consortium students also learned about survival skills, outdoor living, aquatic food webs, and fish management and monitoring at the Palmer Creek acclimation site.

### North Depoe Bay Creek

The Depoe Bay Salmon Enhancement Commission continued to operate a Coho salmon hatchbox project with 20,000 eggs from the Trask Hatchery. Eggs were incubated in two hatchboxes along North Depoe Bay Creek and then transported to North Depoe Bay Reservoir

where they rear over winter prior to release. This program is supported by the community, and youth from the Neighbors for Kids after-school program and CSC natural resource crews assisted with fin clipping in July, along with many other adult volunteers.

Munsel Creek Hatchery

Florence STEP volunteers operated a small hatchery on Munsel Creek to provide eyed eggs for the Siuslaw School District’s Egg to Fry Program. All other eggs and milt collected from Whittaker Creek broodstock were transported to Alsea Hatchery for incubation. In addition to steelhead, approximately 3,000 Coho salmon eggs were incubated at the Munsel Creek Hatchery for release in Munsel Lake.

**Schools and Groups that work with Mid Coast 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.

<p><b>Elementary, Middle, and High Schools</b>          ABC Preschool          Bright Beginnings Preschool          Crestview Heights Elementary          Eddyville Charter School          Florence School District Stream Team          Montessori Preschool          Neighbors for Kids          Nye Beach Montessori School          Oceanlake Elementary          Sam Case Elementary          Siletz Valley School          Siuslaw Elementary School          Sonshine Nursery School          Taft Elementary          Toledo Elementary          Yaquina View Elementary          Oceanspray After-school Program          Fircrest After-school Program          Career Tech High School          Taft High School          Waldport High School          Lincoln County Home School Group</p> <p><b>Colleges and Universities</b>          Oregon Coast Community College          Oregon State University          Western Oregon University          Mt. Hood Community College</p> <p><b>Organizations</b>          Alsea Sportsman’s Association          Angell Job Corps          Association of Northwest Steelheaders</p>	<p>Baptist Church of Waldport          Boy Scouts of America          Camp Florence          Central Coast Flyfishers          Community Services Consortium          Depoe Bay Salmon Enhancement Commission          Florence STEP Group          Longview Hills Fishing Club          Salmon Watch          S.O.L.V.E.          Trout Unlimited          U DA MAN          Newport Library          Driftwood Library</p> <p><b>Government</b>          Bureau of Land Management          United States Forest Service          NOAA          U.S. Fish and Wildlife Service          Oregon Department of Forestry          Oregon State Police          Oregon Parks and Recreation Department          Oregon Youth Authority          Lincoln County          Benton County          Lane County          Lincoln Soil and Water Conservation District</p> <p><b>Watershed Councils</b>          Alsea Watershed Council          Mid Coast Watershed Council          Salmon Drift Creek Watershed Council</p>
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<ul style="list-style-type: none"> <li>• Albany Chapter</li> <li>• Emerald Empire Chapter</li> </ul>	Siletz Watershed Council
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## Southwest Region

### Umpqua STEP

Evan Leonetti, STEP Biologist  
 Jason Brandt, 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, and 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 100,000 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. Other angling opportunities include rainbow trout at Diamond Lake, brook trout at various Cascade lakes, and a number of reservoirs that are stocked with trout and support warm water fish. STEP volunteer efforts range from educational projects and assistance with high lakes stocking to enhancing winter steelhead and fall Chinook salmon fisheries.

The Umpqua Watershed had another successful year with volunteers donating over 10,000 hours. The program completed and/or developed 50 projects this year and reached over 2,000 people with its public outreach efforts alone. Below are highlights for the four main STEP categories.

#### EDUCATION AND PROGRAM DEVELOPMENT

The Umpqua STEP biologist helped coordinate a number of different educational events that reached over 1,400 youth and 350 adults. This included four Free Fishing Day events that occurred in Douglas County, approximately 30 classroom incubators projects, as well as salmonid life-cycle classes and angler education programs.

##### Angler Education

Angler education programs took place at Bowman’s Pond, Free Fishing Day events, Reedsport, and Myrtle Creek. These programs focused on knot tying, identifying various game and non-game fish, and how to use different types of fishing gear. Many local volunteers participated in these events.

##### Glide Forestry Tour

The Umpqua District STEP Biologist participated in the Glide Forestry Tour where around 500 students participated in a variety of presentations on invasive species, cold and warmwater fish identification, habitat requirements and organism life cycles. Station participants included representatives from various agencies such as Douglas Forest Protection, Cow Creek Tribe of the Umpqua Band of Indians, Douglas County, NOAA, and OSU.



## Canyonville Education Events

The Canyonville acclimation site had over 400 students and 60 adults attend our releasing and life-cycle seminars. This included several different schools from southern Douglas County. There were over 75 volunteers with 6 stations for the three days of winter steelhead releasing. These different stations included the following subjects: anatomy, health condition (k-factor), trap and ladder operation, tribal culture, aquatic life, habitat, and fishing/boater safety that were all taught by volunteers. The STEP biologist did hands-on weighing, measuring and smolt condition data collection with the kids.

## Additional developments

The Umpqua STEP biologist worked with the local Tribal biologist, volunteer group, and food banks in an effort to reduce the number of hatchery fish on the spawning grounds and to supply the local community with fresh salmon for consumption. Both our winter steelhead program and Coho salmon programs have produced surplus hatchery salmon and approximately 200 fish were given to the local food banks. This program has not only been a benefit for those in need in the community but it has also proved to be a great cooperation between various organizations and agencies.

Efforts are being made to increase public outreach through increased angler education programs and working with Oregon State Parks to educate youth on fishing and fish in Douglas County. The STEP biologist worked with the local Oregon Coast Anglers to put on an angling education course in Reedsport. Oregon State Parks at Lake Marie requested the biologist attend an outdoor education series. The biologist provided information on local fishing and fish.

## **INVENTORY AND MONITORING**

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

## Galesville Reservoir

The UFA continued to monitor the success of Coho salmon stocked into Galesville Reservoir. Anglers have been collecting data on the number of Coho caught and whether or not they are fin-clipped. This information is used to help assess whether or not adult Coho stocked into the lake are successfully spawning as well as giving us an idea of how many fish are being harvested annually.



In 2016 it was determined that neither adult nor juvenile Coho salmon will be stocked into Galesville. After reviewing fisheries management plans with Douglas County and the UFA, it was determined that rainbow trout would be the only species stocked in Galesville. Other monitoring opportunities will be sought to replace this activity.

## Adult Salmon Monitoring

The Umpqua Fisherman's Association 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 Department to monitor the hatchery winter steelhead program in the South Umpqua.

## Gardiner Lake

Additionally the Gardiner Reedsport Winchester Bay (GRWB) STEP group has been monitoring water quality on Gardiner Reservoir to help improve water quality going into the hatch house. Water temperature, pH, dissolved oxygen, and algae will be monitored by Douglas Soil and Water Conservation and OSU Research. The information collected is being evaluated and will hopefully help solve hatchery related issues that affect egg survival in the hatch house.

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## **HABITAT IMPROVEMENT**

### Carcass Placement

The Gardiner Reedsport Winchester Bay (GRWB) STEP group continued its participation in the nutrient enrichment program by placing Chinook salmon carcasses from spawning events at the hatchery into the North Fork of the Smith River.

### Small Woody Debris Placement

GRWB volunteers with the assistance of local students completed a small woody debris placement project. The materials for this program were obtained for free from the local community. These materials were used Christmas Trees that would have otherwise likely ended up being used for chips or being placed in a landfill. This project was designed enhance the habitat restoration project previously completed in Buck Creek by ODFW and Partnership for the Umpqua Rivers. Buck Creek is a tributary to Mill Creek which is a location where broodstock fall Chinook salmon is occasionally collected for the Lower Umpqua hatchery program.



Volunteers from the Phoenix School assisted with a similar project in East Fork Rock Creek. E.F. Rock Creek is located in the North Umpqua River basin. The basin has a large of amount of habitat restoration ongoing as mitigation for the North Umpqua Hydroelectric Project.

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## **FISH CULTURE**

There are 5 salmon/steelhead hatchery programs in the Umpqua and volunteers are involved in all of them. The program volunteers play the largest role in raising fall Chinook, Coho and winter steelhead. The Umpqua Fisherman's Association (UFA) assisted with broodstock collection of Coho salmon and winter steelhead. Gardiner Reedsport Winchester Bay (GRWB) STEP volunteers collected adult fall Chinook necessary for the release of both pre-smolts and smolts in 2016.

### Marking

Gardiner Reedsport Winchester Bay STEP utilized student volunteers to assist with fin-clipping and nearly 65,000 pre-smolts. These fish were marked during a one-week period. This was a very educational experience for the students and plans have been made for the schools to be involved again next year.

### Acclimation and Release

Winter steelhead acclimation and releases took place this past year at Canyon Creek acclimation site and the Seven Feather acclimation site. These events not only contribute additional winter

steelhead angling opportunities in the basin but also provide a great educational experience for local students and adults. Approximately 90,000 winter steelhead were released in 2016.

Chinook salmon pre-smolts and smolts were acclimated and released by GRWB volunteers into Salmon Harbor. Volunteers reared and released about 65,000 pre-smolts and acclimated and released 50,000 smolts in 2016. Without these volunteers, releasing fall Chinook salmon would be much more difficult.

The UFA assisted with acclimating and releasing Coho salmon below Galesville Dam. The Coho salmon program is a mitigation program initiated after the installation of the dam.



### High Lakes Stocking

The STEP program also coordinated the district’s High Lakes stocking using volunteers from Oregon Equestrian Trails. Volunteers stocked 13 lakes in the district with over 7,000 rainbow trout. Over 30 volunteers assisted with this year’s high lakes stocking and again the project was very successful. Rainbow stocked into these high lakes are a unique strain of locally adapted fish.

### **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.

<b>Umpqua</b>	
<p><b>Elementary, Middle, and High Schools</b></p> <ul style="list-style-type: none"> <li>Fullerton Elementary</li> <li>Oakland Elementary</li> <li>Hucrest Elementary</li> <li>Melrose Elementary</li> <li>St. Paul Lutheran</li> <li>Geneva Academy</li> <li>Winchester Elementary</li> <li>Roseburg High School</li> <li>McGovern</li> <li>Glendale Elementary</li> <li>Canyonville Elementary</li> <li>Fremont Middle School</li> <li>Eastwood Elementary</li> <li>Cobb School</li> <li>Tri-city Elementary</li> <li>Riddle Elementary</li> <li>Days Creek Elementary</li> <li>Glide Elementary</li> </ul> <p><b>Colleges and Universities</b></p> <ul style="list-style-type: none"> <li>Oregon State University</li> </ul>	<p><b>Organizations</b></p> <ul style="list-style-type: none"> <li>Cow Creek Band of Umpqua Tribe of Indians</li> <li>Gardiner Reedsport Winchester Bay STEP</li> <li>Umpqua Fisherman’s Association</li> <li>Oregon Equestrian Trails</li> <li>Roseburg YMCA</li> <li>Umpqua Fisheries Enhancement Derby</li> <li>Umpqua Guides Association</li> <li>Reedsport Rotary Club</li> <li>Umpqua Valley Flyfishers</li> <li>Steamboaters</li> <li>Diamond and Vets</li> <li>The Bowman Family</li> <li>Florence STEP</li> <li>Cabela’s</li> <li>Oregon Coast Anglers</li> </ul> <p><b>Government</b></p> <ul style="list-style-type: none"> <li>Bureau of Land Management</li> <li>Lincoln County</li> <li>Douglas County</li> <li>Oregon Parks and Recreation Department</li> </ul>

Portland State University Umpqua Community College <b>Watershed Councils</b> Partnership for the Umpqua Rivers Smith River Watershed Council	United States Forest Service City of Roseburg Oregon State Police Douglas County NOAA U.S. Fish and Wildlife Service
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## Tenmile, Coos, and Coquille STEP

Gary Vonderohe, STEP Biologist  
Tom Rumreich, STEP Biologist  
Chris Claire, Assistant District Fish Biologist  
Mike Gray, District Fish Biologist

The Tenmile, Coos, and Coquille STEP area is located on the southern Oregon coast and is recognized as having been the birth place of STEP over thirty 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

### Millicoma Interpretive Center

The Millicoma Interpretive Center (MIC) continues to be a popular place for student groups and others to come and learn more about the life histories of salmon and steelhead. Visiting student groups and the general public get a unique “hands-on” learning experience. Groups are involved with the collection of broodstock, spawning, egg and fry care, and fin-marking. Most of the student groups get an opportunity to incubate eggs in their classroom aquaria. This forges a great connection between their activities at MIC and the life-cycle of salmon.



### Family Fishing Events

Oregon Department of Fish and Wildlife hatcheries provided 2,000 legal rainbow trout for stocking in the vacant steelhead acclimation pond at Millicoma Interpretive Center. This has

been a huge success with hundreds of children participating in the catching of these trout. Many children caught their very first fish this past year. Volunteers and hosts passed out many first fish certificates again this past spring.

A separate event was held at Empire Lake in the city of Coos Bay as part of the annual Child Bay Area Hospital's Family Fun Day. For the third year, 3,000 rainbow trout were stocked into the lake for the event. This year over 500 trout were caught with more than 250 children participating. Lunch was provided to all participants by a local business. There were also many other family friendly activities available that day.

On Eel Lake, the STEP biologists and volunteers held a fishing clinic on Free Fishing Weekend for the fifteenth straight year. This event features a course that children can learn everything from knot-tying to fish identification. Once the children complete the course they are allowed to fish in the net pen. The trout are fed by volunteers for approximately one-month prior to the event. Volunteers with the Eel/Tenmile STEP Association rear 1,000 rainbow trout in a net pen located in Eel Lake specifically for the clinic. About 300 children participated in this year's event at Eel Lake.

The STEP biologist facilitated the stocking of legal sized rainbow trout into portable fire suppression ponds for children to catch as part of two events. The first event was part of Coos Bay Fourth of July celebration. Mingus Park in Coos Bay was the location of this event and was a partnership with the Coos Bay Fire Department. Ponds were also set up as part of the annual Charleston Seafood Festival. The Coos Bay Fire Fighters Association purchased a custom made fire pond for exclusive use at these fishing events.

For the third year in a row the STEP biologist helped teach about aquatic insects and casting a fly rod to 15 adults as part of a class for beginners held at Southwestern Oregon Community College. Many of the materials for the class were provided by Oregon Department of Fish & Wildlife.

#### Coquille High School Educational Hatchery

Volunteers and students continued to work on the Coquille High School Educational Hatchery during the year. During the winter, the high school students continue to be teachers themselves in what is now known to be "Tour Tuesday." Elementary school classes devote an afternoon learning salmon life histories and their struggle to survive. The high school students spawn and incubate salmon and steelhead eggs at the station which provides a wonderful "hands-on" experience for the younger students. This is a wonderful time to see the older students impart resource awareness and education to these younger students. For the adult volunteers and teachers, it is a time to sit back and enjoy.

#### Morgan Creek Hatchery

Several small projects continue at Morgan Creek Hatchery. These projects help maintain the hatchery and keep the operation running smoothly. Most of the signs and interpretive kiosks have been completed. These signs will help educate the 'drop-in' visitor.

A total of 567,769 Chinook salmon were marked at Morgan Creek during the report period. A total of 259,534 Chinook were marked by student groups and an additional 308,235 Chinook were marked by the auto mark trailer.



## Noble Creek Hatchery

Volunteers with Coos River STEP continued to use the deep matrix hatchboxes to incubate salmon at the hatchery until they are ready to be fed. Coos River STEP volunteers have continued to use the automatic fish feeders. These feeders automatically dispense fish food once an hour throughout the day. These feeders made a great improvement in the way we feed juvenile Chinook salmon at Noble Creek Hatchery. For the third year in a row the auto-fin marking trailer was at Noble Creek for two weeks to adipose clip 100% of the hatchery Chinook releases. Several members of the public came to see the trailer in operation. This was a great opportunity to talk to public about the importance of monitoring our hatchery releases.



## Other Outreach

Since 2009, STEP has partnered with the Coquille Indian Tribe to operate a booth at the annual Salmon Celebration. The booth had a live adult Chinook salmon in a large aquarium. This booth was a huge success as over 700 visitors took time to learn more about salmon.

## **INVENTORY AND MONITORING**

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### 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 estuaries. In the Coos River Basin volunteers release in excess 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 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.



The STEP biologist and volunteers assisted District staff with monitoring fish populations in the newly acquired ODFW Coquille Valley Wildlife Area. Hoop traps were set in the streams/drainage ditches overnight to capture salmon juveniles and warmwater fish species. This sampling is part of pre-restoration monitoring for a large tidal wetland restoration project planned to be implemented in 2017.

## **HABITAT IMPROVEMENT**

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### Carcass Placement

Salmon carcasses were again placed in numerous district streams during the report period. ODFW staff and volunteers placed over 5,900 salmonid carcasses into 5 different streams. Most of these carcasses were fish returning to Coos Basin STEP facilities.

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## **FISH CULTURE**

Large numbers of volunteers continue to be involved in the extensive fish cultural programs in the District. There are eight broodstock development, eight spawning, nine egg incubation, five rearing, and fifteen acclimation projects in the District. The fish cultural operations in the District involve the largest number of volunteers in recent years.

### 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. The collection of naturally produced salmonids is always very labor intensive. For more than twenty years, a significant proportion of the steelhead has been acquired through angler donations.

### Fry Releases

The District STEP biologist coordinated the collection and distribution of salmon and steelhead eggs from ODFW hatcheries or STEP incubation facilities to volunteers. As a result, 55110 fry were released from two hatchboxes in the Coquille Basin. The Chinook salmon fry releases in the Coquille River basin are conducted for the purpose of a payback program. These fry are a replacement for the loss of production of wild Chinook salmon that are taken and used in the lower river smolt program.

### 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 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. A total of 2,005,461 Chinook salmon pre-smolts were released into the Coos Basin in the spring of 2016. Almost all of the Chinook that were released in the Coos River basin in the spring of 2016 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 all the Chinook at Noble Creek and 54% of the Chinook marked at Morgan Creek. Student groups at Morgan Creek marked the balance of the Chinook reared at that facility.

Since 2007, Chinook salmon have been released into the Fourth Creek reservoir as part of a cooperative partnership with the Coquille Indian Tribe. The fish are reared at Bandon Hatchery and 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.

In the fall of 2012, a trap was constructed and installed into the fishway at the tribal reservoir. Due to extremely low water, no salmon were trapped last fall.

### Fish Eggs-to-Fry Program

A total of nine classroom incubators were operated at eight different schools. This past year hundreds of students at eight schools observed eggs hatch and develop. At the time the eggs are distributed, the students are presented with a lesson by the STEP biologist on the biology of salmon eggs and salmon in general. This lesson further imparts resource ownership to the children.

### Rearing and Acclimation

In 2016, Chinook salmon presmolts were reared and released from the Coquille High School. A total of 24,347 presmolts were released from the facility. Students at the school participate in the entire process which includes trapping, holding and spawning the fish for the program. The eggs are fertilized and incubated through the “eyed stage.” Coquille High School is the only facility other than Bandon Hatchery where eggs are incubated to the “eyed stage.”



Approximately 140,000 fall Chinook salmon smolts were released from two locations in the Coquille River basin. The two acclimation sites are Sevenmile Creek and Ferry Creek. These acclimations was extremely successful this year in that the fish held and fed well during their acclimation period. The acclimation of a larger number of Chinook smolts at Ferry Creek should provide a good source of broodstock when they are trapped at Bandon Hatchery which is located just upstream from the acclimation site.

STEP volunteers operated a total of twenty 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 Tenmile Coos Coquille 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.

<b>Elementary, Middle, and High Schools</b> Bandon High School Blossom Gulch Elementary School Coos Bay School District Coquille High School Harbor Middle School Hillcrest Elementary School Lakeview High School Lighthouse School Lincoln Elementary School Madison Elementary School Marshfield High School Millicoma Mid. School Myrtle Point High Myrtlecrest Elementary School	North Bend High School North Bend Middle School Ocean crest Elementary Powers Elementary School Sunset Middle School <b>Colleges and Universities</b> Central Oregon Community College Southwestern Oregon Community College Oregon Institute of Marine Biology <b>Organizations</b> Bay Area Sportsman Association Boy Scouts of America Coos River STEP Coos County STEP Coquille River STEP
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North Bay Elementary School	Eel Tenmile STEP South Coast Anglers STEP
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**Lower Rogue STEP**

John Weber, STEP Biologist  
 Steve Mazur, Assistant District Fish Biologist  
 Todd Confer, 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. The majority of 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. In 2013 the Oregon Fish and Wildlife Commission adopted the Rogue Fall Chinook Species Management Unit (SMU) Conservation Plan. The plan sets conservation criteria and desired status goals for wild fall Chinook salmon in the Rogue River and five coastal watersheds south of Elk River. The plan was developed by ODFW in collaboration with multiple government agencies and a public advisory committee. The two district STEP groups provided representatives for the advisory committee. In addition, the majority of the monitoring projects that STEP volunteers participate in (in the Lower Rogue Watershed District) are defined management strategies embedded in the plan. The culmination of the plan has focused the STEP groups on fishery management in the District.

Volunteers participated in projects associated with fish culture, education of youth, habitat restoration, and population monitoring. Fish culture and population monitoring comprise the majority of 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 made 30 presentations at organized fishing group meetings. Primary topics discussed were fish management policy, habitat problems and solutions, angling regulations, STEP guidelines, district management objectives, and volunteer recruitment.

A total of 35 presentations were made to students at local schools. Topics included: Salmonid life history, fish anatomy, fish culture, angling, habitat protection, and restoration. Some of the presentations involved a field trip relative to the topics discussed.

#### Lower Rogue Native American Heritage Camp

The STEP biologist with the help of OSCF and CAF joined with Wil Warren of “I’m Hooked” to provide angler education for the Lower Rogue Native American Heritage Camp. Students that attended the camp spent the afternoon at stations that focused on angling techniques, gear and native fish of the Rogue River. In addition, all the campers had the opportunity to fish with Wil on the river and received a free fishing pole at the end of the day.

#### 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 90 children participated this year. The event includes displays of various ongoing STEP projects which creates a great atmosphere to recruit young anglers and volunteers.

#### Free Fishing Day

On June 4, 2016 the annual free fishing day event was held at Libby Pond. Ninety kids registered for the event organized by ODFW. Volunteers from CAF and OSCF sponsored the derby and were on hand to register children.

Kids were assisted with fishing tips, instruction, registration and measurement of trout. Hot dogs and beverages for the event were provided by CAF. Participants caught over 160 rainbow trout during the derby. In addition fishing rods and equipment were donated to be given away in a raffle.



#### Improved South Coast Angler Access

Oregon South Coast Fisherman 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. Beginning in 2001, OSCF has 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 will be opened during fishing season for access.



Curry Citizen for Public Land Access (CCPLA) maintained multiple fishing access areas throughout the Lower Rogue District. This group is an up and coming public access group that has fully committed to improving access for hunting and fishing on public land. In 2016, the group coordinated with ODFW, USFS and BLM to improve trail and road access to numerous hunting and fishing access areas that have been otherwise neglected for lack of funding and staff. Below are a few CCPLA projects that time and effort was donated to ODFW and Oregon anglers:

### Sixes River mid-Drift Boat Put-In

CCPLA removed trees, brush and spread gravel to improve the parking/access area. In addition, a sign was placed to recognize the cooperators of the project.

### Southard Lake

This effort accomplished brushing and grading the USFS road access to the lake. Also, the turn outs and parking area was opened up as well.

### Lower Rogue Gravel Bar Access

Two popular lower Rogue gravel bar access roads that were four wheel drive only have been repaired to allow more diverse vehicle access to the bar. The roads were brushed, graded, large boulders were removed and a total of 110 yards of gravel was spread to repair these popular fishing areas.

### Slam'n Salmon Derby

In an effort to develop the STEP program and encourage volunteer involvement, the Lower Rogue STEP biologist and OSCF operated a booth during the annual Labor Day Slam'n Salmon Derby at the Port of Brookings.

Volunteers maintained a tent that housed a mobile aquarium with live adult salmon and displays demonstrating district STEP activities. Staff used this opportunity to discuss related projects and issues. An estimated 200 people visited the booth throughout the weekend and a number of people joined the STEP groups.

### Reel Fish Day

The Lower Rogue STEP, Oregon Parks and Recreation Department, and the South Coast Watershed Council office sponsored Reel Fish Day, an angler education day for Brookings and Gold Beach Elementary School third grade classes. This event was held at Arizona Beach State Park and is designed to complement the STEP Fish Eggs-to-Fry program that has been offered over the last two decades. In 2016, all of the third grade classes in the Lower Rogue STEP district attended the event. 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 Angler Education instructors in the pond which was stocked with trout prior to the event. Participants were given the option to keep or release their fish.

Those that chose to retain their catch were taught the responsibility of packaging and cleaning their fish for a meal. With the success of Reel Fish Day the Brookings, Port Orford, and Gold Beach School Districts will continue to send their third grade classes to this event.

## **INVENTORY AND MONITORING**

### Chetco 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 sampled in the tributaries. During the 2015 brood year volunteers and staff collected 304 samples.



### Estuary Seining

The STEP biologist and OSCF volunteers completed their 25th 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 smolt. 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.

### Winchuck River Screw Trap

The STEP biologist and OSCF volunteers operated a downstream migrant trap just upstream of the Winchuck River estuary. Operation of the trap represents the continuation of a 27-year database. The OSCF have operated the trap for the past fourteen years, doing work that would otherwise be unaccomplished under current district staffing levels. The data obtained from the trap is used by ODFW to assist in managing fall Chinook salmon.

The 2016 Winchuck trapping season concluded with 66 days of trap operation and an estimated 159,000 fall Chinook salmon migrated past the smolt trap site.



### Huntley Park Seining

The Huntley Park Seining Project represents a continuation of a 41-year adult salmonid monitoring database. This project is conducted annually from July through October at Huntley Park on the lower Rogue River. The Huntley 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.

A number of STEP and local volunteers participate every year, rain or shine.

### Chetco 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 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 throughout the 2016 season.

### Indian Creek Hatchery Monitoring

In an effort to better evaluate the Indian Creek Hatchery program, volunteers walked spawning ground surveys on Indian Creek. The data from this effort will be used to determine the effectiveness of the adult fish trap and to estimate the number of fish using Indian Creek.

## **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. A total of 2,898 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. In addition,

steelhead carcasses of Chetco River origin were redistributed into the south fork of the Chetco River.

### Estuary Riparian Enhancement

Oregon Stewardship with help from Curry Anadromous Fisherman and local students improved estuary riparian habitat along Euchre, Hunter Creek, Pistol, and Winchuck rivers to improve Chinook salmon production. Oregon Stewardship contacted the landowners of the estuaries for access and planting on their property. Students from Brookings and Gold Beach schools planted willow and spruce trees in early spring of 2016 and followed up with watering and weeding. Reports indicate good growth and excellent survival of last year's plantings. This is an annual project that is difficult to achieve without the leadership of Oregon Stewardship.

### Chetco River Fish Salvage

Oregon South Coast Fishermen volunteers spent six days 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. The majority of the fish salvaged were Chinook salmon, some juvenile winter steelhead was observed in the catch.



### Salmon Run Golf Course Riparian Rehabilitation

Students with the Kalmiopsis grade school and OSCF spent numerous days removing invasive plants and replanting the riparian on Jack Creek a tributary of the Chetco River. In an effort to improve the quality of the riparian vegetation on Jack Creek the OSCF, Southcoast Watershed Council and Salmon Run Golf Course have collaborated with the school to remove Himalayan blackberries. The plan is to replant with native vegetation that better suit the fairways on the golf course. This is an annual effort with expectations to continue.

### Port of Brookings Aerators

Historic water samples of the Chetco Boat basin identified areas of low dissolved oxygen. At the time OSCF obtained funding from various sources to purchase and maintain the aerators. Last summer the Port of Brookings and OSCF purchased equipment required for maintenance. With the funding the OSCF assisted the Port in getting the equipment back online.

### Jack Creek Water Quality

Students and volunteers worked together to gather samples to determine water quality in Jack Creek a tributary of the Chetco River. Data collected included water temperature, PH and dissolved oxygen. In addition, Curry Soil and Water Conservation and OSCF volunteers placed multiple thermographs in a reservoir on Jack Creek to determine if the waterbody is suitable for future trout stocking.



## **FISH CULTURE**

### Chetco River Broodstock Collection

Volunteers and fishing guides assisted ODFW staff in collecting broodstock for the Chetco River hatchery programs. A total of 150 fall Chinook salmon and 86 winter steelhead were collected and transported to Elk River Hatchery.

### Ferry Creek Acclimation

ODFW and OSCF acclimated fall Chinook 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 72,999 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.

### Euchre Creek Hatchbox

Boy Scouts raised and released a total of 10,334 fall Chinook at a hatchbox site on Cedar Creek a tributary of Euchre Creek. The Euchre Creek hatchbox project has a long history of youth involvement and has provided a streamside site to have discussions on salmonid life history, habitat requirements and population dynamics.

### **Schools and Groups that work with Lower Rogue 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.

<b>Lower Rogue</b>	
<b>Elementary, Middle, and High Schools</b> Azalea Middle School Brookings Harbor Christian School Brookings Harbor High School Driftwood School (Port Orford) Gold Beach High School Kalmiopsis Elementary School Klamath Outdoor Science School Pacific High School (Port Orford) Riley Creek School K-12 (Gold Beach)	Curry Citizens for Public Land Access (CCPLA) I'm Hooked Inc Oregon Stewardship KBSC KURY
<b>Organizations</b> Curry Anadromous Fishermen (CAF) Curry Sportfishing Oregon South Coast Fisherman (OSCF)	<b>Government</b> City of Brookings Curry County Port of Brookings Port of Gold Beach <b>Watershed Councils</b> Lower Rogue Watershed Council Port Orford Ocean Resource Team (POORT) South Coast Watershed Council

## Upper Rogue STEP

Ryan Battleson, STEP Biologist  
Dan Van Dyke, 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 Agness. 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 a large number of 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.

This year 183 district STEP volunteers put in over 1,500 hours and donated over 2,000 miles to complete the various projects described in this report to help meet district management objectives. Monitoring projects, outreach and habitat work make up the bulk of the volunteer projects on the Rogue. An emphasis on small streams, urban streams and intermittent streams outreach, small scale restoration, and monitoring activities make up the majority of STEP activities. This focus is intended to highlight fish use in streams that are often overlooked by agencies and the general public and encourage good stewardship among streamside landowners and cost-effective restoration projects.

The STEP Biologist attended a number of new public speaking outreach opportunities and festivals. This diverse range of folks included events attended by traditional angler groups, to local landowners and agriculture producers, and even a professional conference. A new acclimation project intended to increase contribution of hatchery fish to the community of Grants Pass also completed its pilot year.

## EDUCATION AND PROGRAM DEVELOPMENT

### Fish Eggs to Fry Program: Classroom incubators

In the Upper Rogue District, the Fish Eggs to Fry Program focuses on raising spring Chinook from the eyed eggs stage to button up fry. STEP Volunteers from the local angling groups and public deliver the eggs to the classrooms. A total of 19 teachers participated in the program during the fall of 2015. In most cases a curriculum developed by STEP biologists was used to promote learning about egg development, salmonid life-cycles and fish habitat requirements. Additionally, a popular nature center in Ashland participated this year, and served as an additional outreach opportunity to introduce the public to salmon life history. An additional incubator also operated at the Grants Pass office of the Bureau of Land Management. Both of these latter two locations purchased all of their equipment so that state purchased equipment could be used for classrooms. The District STEP Biologist also worked to purchase additional aquariums/chiller units to be used in the fall of 2016. Being one of the flagship educational programs offered through ODFW, an increase in school site participation is a top priority to the Upper Rogue District. It will act as a spring board for so many other programs such as Salmon Watch, Stream Scene, the Small Stream, Urban Stream, and Intermittent Stream Program, and Angler Education in the Rogue Valley.

### 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, in order to promote stewardship and protect habitat; gaining additional fish distribution information; and developing interest and support for restoration actions on individual streams.

Key to the project, volunteers operate upstream migrant “hoop” traps to survey for fish use during winter. A total of 35 streams have been sampled with “hoop” traps since the start of the project in 2005. This year upstream migrant hoop traps were operated on Wagner Creek (Talent), Ashland Creek (Ashland), a small unnamed tributary to Bear Creek (Phoenix), and Sand Creek (Grants Pass). The trap data and restoration



opportunities are communicated to the public through a variety of techniques. 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 year, 2 front page articles in the Mail Tribune regarding hoop traps and fish using these streams were published and can be found at the following links:

- 1) <http://www.mailtribune.com/article/20160212/NEWS/160219861>
- 2) <http://www.mailtribune.com/news/20160316/survey-will-tell-more-about-steelheads-movements-one-clip-at-time>

A riparian project on a small, unnamed tributary to Bear Creek is equal parts habitat restoration and outreach. The creek flows through a culvert on the Bear Creek Greenway in Phoenix, Oregon (see photo below). The 2015-2016 period marked the second year of restoration and outreach for this small, seemingly innocuous stream and was the site for a hoop trap from fall through spring. The high school biology teacher paired with the STEP biologist to host 2 field trips to the site in the winter and spring of 2016. One for a restoration field day and the other as an ecology field day. This working lab gave the students a chance to learn about techniques such as mark recapture population estimates and Chinook salmon and Steelhead ecology in the Bear Creek basin. The students also participated in the ongoing restoration by removing noxious weeds and planting native trees. A sign on the greenway encourages members of the public to contact the local STEP biologist for more information.

### New Year's Fish Counts

The winter of 2016 marked the second year of another project intended to help connect community members to the fish using nearby streams. Patterned in part after the Audubon Christmas Bird count, volunteers were recruited to survey urban streams with the goal of increasing awareness and fostering stewardship to produce more fish.

Volunteers received training in fish identification and the use of one person seines. Then on separate Saturday's the teams went out to designate stream reaches to see what they could collect. The data and accompanying photos were collected and summarized. A very good article

covering the project was published in the Grants Pass Daily Courier for a second consecutive year

#### Bear Creek Salmon Festival at North Mountain Park, Ashland

A booth at the annual Bear Creek Salmon Festival was staffed by the STEP biologist again this year. On display were juvenile steelhead, sculpin, and exotic shiners and crayfish collected from Bear Creek at the park. Several of the attendees at the festival saw fall Chinook salmon about to spawn in Bear Creek on the park grounds. Drought stewardship was emphasized in the display material.

#### Creeks and Kids 2015

The ODFW portion of the event was planned around showcasing wild fall Chinook spawning in Bear Creek. Fall Chinook salmon were spawning all day long and provided numerous photo opportunities for attendees. It was also a great opportunity to emphasize the importance of Bear Creek to native salmonids, despite being the Rogue River's most urbanized stream. Drought stewardship was also emphasized by the STEP biologist.

#### August Institute Educators Resource Fair

A workshop for teachers organized by The August Institute, was held at the OSU Extension Office Grounds in Jacksonville in August 2016. Approximately 60 local educators attended the event. STEP highlighted the educational resources available to teachers and students including the Fish Eggs to Fry program and Stream Scene. Additionally, live juvenile steelhead, sculpin, and shiner were on display. This event resulted in several new teachers signing up for the Fish Eggs to Fry program.

#### Southern Oregon Cannabis Growers Symposium

A number of state agencies and local non-governmental organizations attended this inaugural event, organized by the Josephine County Soil and Water Conservation District, in the spring of 2016. ODFW was asked to attend, and the Salmon Trout Enhancement Program was highlighted with an informational presentation and informational booth at the Josephine County Fairgrounds. With Cannabis production and use being legalized in the State of Oregon in 2015, streamside development and water withdrawal applications and activities have increased. Some of this is legal, some of it is not. Since this issue directly impacts many streams and their fish populations within the Upper Rogue Basin, habitat protection was strongly emphasized. Information on stream side riparian buffers, fish screens for irrigation canals and pumps, and the species of fish that inhabit streams of the Rogue Basin were shared with participants. The presence of STEP was very well received by many of the participants, and was a good way to spread the need for streamside stewardship to a completely new and untraditional constituency.

#### Family Fishing Day at Reinhart Park Pond and Howard Prairie Reservoir

Consistent with the 25 year Angling Enhancement Plan, STEP organized 2 family fishing events during the reporting period. Members of the Middle Rogue Steelheaders paired with STEP to provide fishing rods and assist in baiting hooks in Reinhart Volunteer Community Park and Pond in Grants Pass. This coincided with a recent legal and trophy trout stocking. During Free Fishing Weekend in June, STEP and several community volunteers from Jackson County provided rods, bait, and instruction on trout fishing at Howard Prairie resort. Unfortunately, inclement weather limited the turn out for this event, but did give the attendees that were there, much greater access to the volunteers and STEP Biologist for a hands on "guided" experience. Several young anglers were lucky enough to catch their first fish at this event.

## Large Group Presentations

The STEP Biologist gave two public presentations to the Middle Rogue Steelheaders, a local angling and conservation/restoration group, during two of their monthly meetings. One presentation highlighted STEP related projects, past, present and future in the Rogue Valley. The other presentation was a complete overview of the Cole M. Rivers Hatchery history, federal mitigation and state funded production schedules, and year to date and historical return data for anadromous stocks. Each presentation was about an hour with combined presentation, questions and discussion.

The STEP Biologist attended and presented at the 52nd Annual Meeting of the Oregon Chapter of the American Fisheries Society in Seaside, Oregon. This presentation highlighted the Small Stream, Urban Stream, and Intermittent Stream outreach and monitoring programs in the Middle and Upper Rogue Basin.

## **INVENTORY AND MONITORING**

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 of salmon and trout using these streams during winter high flow periods. The information is collected to inform the public about the importance of these small streams as refuge for salmonids during winter storms. Volunteers were recruited through ODFW's STEP and trained to monitor and identify fish species captured in the traps throughout the winter. To date 35 streams have been sampled. Since its inception, the project has been a useful tool in finding out where fish go during high flow periods, increased our knowledge of the distribution of threatened Coho salmon. Also, many fish passage barriers and habitat improvement projects have been identified throughout the Rogue District.

### Hoop Traps

In fall-early spring 2015-2016, 7 volunteers spent 269 hours sampling hoop traps in the Rogue Watershed. Hoop traps were placed in tributaries of Bear Creek: Ashland, Wagner, and an unnamed tributary in Phoenix. Sand Creek, a tributary to the Rogue River in Grants Pass was also



trapped to evaluate the improvements to the fish passage improvement, constructed by the Middle Rogue Steelheaders. Results were distributed to local streamside landowners along with notes on salmonid biology and the importance of streamside stewardship for small streams.

	Juvenile Steelhead	Juvenile Coho	Cutthroat	Sculpin species	Redside shiner	Native crayfish	Exotic crayfish	Trap Nights
Ashland	732	0	2	4	120	0	4	104
Wagner	166	0	30	523	26	0	1	1113
Unnamed Phoenix Tributary	44	0	0	10	0	0	20	129
Sand	2	0	0	1	12	0	2	91

### Out-migrant fry and irrigation ditch bypass trapping:

Murphy Creek is an example of a stream that becomes intermittent to dry on most years due to irrigation withdrawal. Here, the Murphy Ditch Irrigation Canal dries up 1.5 miles of stream. Volunteers operate a bypass trap to haul juvenile salmonids and other native fish downstream to the mainstem Applegate River beginning April 1-October 31 of every year.

The Jones Creek fry trapping project began as way to keep steelhead fry from entering an irrigation canal in Grants Pass through an unscreened diversion. STEP volunteers were trained to operate the traps and move fish safely downstream. Following the completion of several fish passage projects and the removal of the unscreened diversion (work completed by the Stream Restoration Alliance), the traps have been used since 2014 for partial evaluation of the projects.



During the spring of 2016, a total of 17 STEP volunteers contributed 318 hours to trap mostly juvenile summer steelhead fry in both the West and East Fork of Jones Creek. A total of 1,389 fry were counted in the East Fork in 63 trap nights. On the West Fork, 1222 fry were collected in 54 trap nights. Coho fry were reported to be in the catch as well, but identification was not confirmed by a biologist. Drought conditions have persisted in the Rogue watershed from 2013-2015. In the past, low flows would surely have blocked steelhead from reaching the habitat available in the west and east forks of the creek, but with restoration of passage fish production is assured. STEP volunteers continue to play a role in this important project.

During the pilot year of the Sand Creek winter Steelhead acclimation project, a downstream migrant fry trap operated upstream of the project site. The objective of this project was to show the participating group of volunteers that Sand Creek still produced native, presumably summer Steelhead fry. This trap also proved useful in gauging the degree of potential impacts to naturally produced Steelhead fry during the acclimation period. A total of 166 steelhead fry and 1,003 non-native Redside shiner were captured between April 27, 2016 through May 10, 2016, a total of 14 trap nights. Speckled Dace, non-native Umpqua Pikeminnow, and non-native ringed crayfish were also captured in the trap.

## **HABITAT IMPROVEMENT**

### Riparian Restoration

Work continued on a multi-year project to restore riparian vegetation along Whetstone Creek where it flows through the Denman Wildlife Area (roughly 4,500 feet of stream). Volunteers from the Middle Rogue Steelheaders spent a day planting over 500 willow cuttings, and fencing numerous establishing hardwood trees to limit beaver damage. Volunteers assisted with the watering of plants from April through September.



A small unnamed tributary at Blue Heron Park began its second year of restoration and outreach during the 2015-2016 reporting year. This project, as noted earlier is along the Bear Creek

Greenway in Phoenix and serves as a very public outreach showing the importance of small streams within the Rogue Basin. Additional Blue Elderberry, Ponderosa Pines, Cotton Wood, Incense Cedar, and willow cuttings were planted at this site. Follow up hand removal of Himalayan Blackberry and Star Thistle were also removed. Volunteers, including Phoenix High School Students participated in restoration at this site throughout the spring of 2016 .The project area is about 200 feet long by 100 feet wide, or about 0.45 acres of the riparian area. \

In an effort to expand restoration opportunities to other streams and communities within the Rogue Basin, the STEP biologist began the process of advising the local Grants Pass High School and Rogue Watershed Council in a multi-year, multi-partner restoration project on Gilbert Creek. This project is led by the Rogue Watershed Council, who received a nearly \$10,000 grant over 2 years from the Oregon Watershed Enhancement Board. The STEP Biologist helped with the technical advising of the project as in-kind matching fund, as well as solicited local STEP volunteers to assist in implementing the project. This project pairs a number of partners together, most importantly the local Grants Pass High School, North Middle School, and Highland Elementary School classes and grounds which have Creekside frontage property to Gilbert Creek. The site located in the heart of Grants Pass will serve as a focal point for what a healthy urban stream can look like.

### Stream Nutrient Enrichment

Members from the Coastal Conservation Alliance, Southern Oregon Flyfishers, Southern Oregon University Biology Club, and Rogue River Watershed Council, again paired with the STEP program to distribute carcasses generated from returns to Cole Rivers Hatchery of Spring Chinook, Coho, summer and winter Steelhead in the upper Rogue Basin. A total of 23,554 pounds of spring Chinook salmon were distributed in the mainstem Rogue River between Cole Rivers Hatchery and Shady Cove by drift boat. A total of 10,682 pounds of Coho salmon were distributed in Elk and Taylor Creeks. A total of 5,367 summer and winter steelhead were distributed in Sugarpine Creek, West fork of Evans Creek, and Bitter Lick Creek. All tributary streams are streams designated as high density Coho and steelhead bearing streams. All Carcasses were frozen for a period of 21 days at minus 10 degrees Fahrenheit to kill the pathogen that causes canine salmon poisoning in order to reduce any potential conflict with streamside landowners and their pets.



### Temporary fish passage improvement at Sand Creek irrigation diversion

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. 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. With the hoop trapping records and New Year's fish count, and even electroshocking surveys yielding few salmonids, this structure still appears to be inadequate for providing upstream passage to smaller juvenile steelhead, but adult passage was most certainly improved.



Downstream passage also most likely benefitted, as any out-migrating fry and smolt now have a pool to land in once passing over the irrigation dam.

## **FISH CULTURE**

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### Acclimation at Sand Creek

The spring of 2016 marked the beginning of a pilot project for acclimating winter Steelhead in degraded Grants Pass tributaries with an objective of maximizing contribution of hatchery fish to this urban fishery on the Rogue River. Sand Creek was chosen as a pilot site due to the presence of an existing irrigation dam structure, which is seasonally impounded due to an existing water right corresponding with the beginning of irrigation season. This impoundment would have occurred, regardless of whether or not the acclimation project took place. This project was a collaboration between Grants Pass Irrigation District (GPID), the Middle Rogue Steelheaders, a private landowner, and STEP. A STAC Mini-Grant was awarded to purchase the piping needed to transfer the hatchery winter steelhead smolts from the liberation truck, into the pool created behind the irrigation impoundment.

During a period of 14 days, these steelhead smolt acclimated to Sand Creek water, and then were volitionally released concurrently with the annual flushing of the irrigation canals by GPID. Being a pilot project, much was learned about the suitability of using this stream for acclimation. Volunteers took stream temperature and dissolved oxygen measurements multiple times per day. Unseasonably warm weather increased stream temperatures in the latter 3 days of acclimation. Out of the 7,500 smolt delivered to the site, an estimated 6,500 smolt were volitionally released. Still, this project was considered a success and much gleaned for future acclimation projects within the Grants Pass area. Simultaneously, stream temperatures in other small Grants Pass tributaries were monitored throughout the acclimation period, in an effort to locate other suitable streams where acclimation may be better suited in the future.



The local news station covered the project with a video and write up:

[http://www.kdrv.com/news/New\\_Pilot\\_Project\\_Aims\\_to\\_Improve\\_Fishery\\_on\\_Local\\_Creeks\\_Rogue\\_River.html](http://www.kdrv.com/news/New_Pilot_Project_Aims_to_Improve_Fishery_on_Local_Creeks_Rogue_River.html)

### Fish Salvage

Volunteers provided assistance with the salvage of fry in designated streams in the Rogue watershed. Streams chosen for fish salvage are streams that go dry in part due to the withdrawal of irrigation water. A total of 4 sites/stream reaches were checked for stranded fish. The species moved downstream to flowing water included 376 Coho salmon Fingerling/smolt, and 151 Steelhead fingerling/smolt.

## Egg to Fry Program

A total of 6,700 eyed spring Chinook salmon eggs from Cole Rivers Hatchery were delivered by five volunteers to 19 classrooms from Prospect to Cave Junction in the Rogue River Basin during the fall of 2015. A total of 6,003 survived to button-up fry stage and were released into the Rogue River.



## **Schools and Groups that work with Upper Rogue 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.

<b>Elementary, Middle, and High Schools</b> Allendale Elementary Brighton Academy Crater High School Fruitdale Elementary Grants Pass High School Hidden Valley High School Hoover Elementary Howard Elementary Imagine that Creative Children's Learning Center Jacksonville Elementary Jewett Elementary Lincoln Elementary Lorna Byrne Middle School Madrone Trail Charter School Mae Richardson Elementary North Medford High School Orchard Hill Elementary Outdoor Discovery School – Talent Elementary Prospect Charter School Prospect Elementary Prospect Middle School Rogue River Elementary Ruch Elementary St Mary's School Various Homeschools Wilson Elementary	<b>Colleges and Universities</b> Oregon State University Rogue Community College Southern Oregon University Western Oregon University <b>Organizations</b> Coastal Conservation Association Crater Bass Middle Rogue Steelheaders Rogue Flyfishers Southern Oregon Flyfishers <b>Government</b> Ashland Parks and Recreation Department BLM – Grants Pass City of Ashland City of Cave Junction City of Central Point Grants Pass Irrigation District Jackson County Parks Department Josephine County Parks Department Medford Irrigation District Oregon State Parks Phoenix Public Utility Department USFS – Cave Junction, Medford <b>Watershed Councils</b> Illinois Valley Watershed Council Seven Basins Watershed Council Applegate Watershed Council Rogue River Watershed Council
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## East Region

### Eastern Oregon STEP

Jennifer Luke, STEP Biologist

Shannon Hurn, David Banks, Erik Moberly, Bill Tinniswood, Brett Hodgson, Rod French, Terry Shrader, Jeff Yanke, Brent Smith, Tim Bailey, 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 fish, and restoring fish habitat.

Volunteers assist with a variety of surveys including electro-fishing, trap netting, redd, and snorkel surveys. 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 general public education about fish populations and their habitats are a high priority for the Eastern Oregon STEP district. STEP volunteers eagerly 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

Kokanee Karnival Youth Education Program continues to be a popular education program for Deschutes, Jefferson, and Crook County elementary students. In 2015-2016, 360-400 students participated in the Kokanee Karnival Comprehensive Education Program. 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.

Approximately 2,632 students participated in the Kokanee Karnival Electives Program in which teachers sign up for classroom activities such as raising trout, basic trout biology class, and (or) angler education. Kokanee Karnival receives exceptional support from both the volunteer community and our financial sponsors. Partners for the Kokanee Karnival include STEP, Central Oregon Flyfishers, Sunriver Anglers, USFWS, 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.

In 2015-2016, the STEP biologist recruited and scheduled volunteers to serve as instructors at Kokanee Karnival's six-day angling clinic. The STEP biologist prepared activities and materials for the Trout Dissections, Angling Clinic, Fall Streamside field trip, Fish Eggs-to-Fry, and Kokanee Karnival classroom presentations.

### 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, Crook County Middle School and High Lake's Elementary "Science and Fisheries Field Trips," Madras 4-H Pond Tour, Ochoco Creek field days, and Prineville's "Fin, Feather and Fire Festival."

The STEP biologist attended several Central Oregon Flyfisher and Sunriver Angler group meetings for volunteer recognition and outreach purposes.

## **INVENTORY AND MONITORING**

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### Crooked River Redband 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 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 and volunteers can record size, condition and abundance. The fish are released unharmed. The population assessment estimates the number of redband trout and mountain whitefish 8 inches long or longer per river mile.

### Spawning Surveys- Redband and Bull trout

Volunteers are paired with local biologists and trained to identify and count redds. Redband spawning surveys are conducted from December through May in the Metolius River. Upper Deschutes Redband Trout surveys are conducted in May and Metolius bull char surveys in September and October. In the Klamath district, volunteers also conduct spawning surveys on the Wood and Williamson rivers. Volunteers are essential for completing these spawning surveys and it provides valuable information for monitoring native trout populations.

### Zooplankton sampling

Volunteers assisted biologists collecting zooplankton samples from lakes and reservoirs. Zooplankton abundance, species and size is an indicator of available forage for kokanee salmon and young trout. Volunteers collected and analyzed samples of from East Lake, Paulina Lake Prineville and Ochoco Reservoir.



## FISH CULTURE

### Stocking Steelhead in Deschutes Reintroduction Areas

Volunteers backpacked in thousands of steelhead fry in remote canyon areas, or places not accessible by truck, in order to disperse fry in suitable rearing habitat. Stocking steelhead fry and smolts is part of the reintroduction and conservation plan of anadromous salmon and steelhead in the Upper Deschutes basin. Volunteers also assisted in PIT tagging Chinook and steelhead smolts in order to evaluate survival and/or migration to the dam facility



### Fish Eggs to Fry:

Sixty one classrooms from all over Eastern Oregon, including Klamath Falls, Milton-Freewater, Elgin, Drewsey, and Vale 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 and trained volunteers to assist teachers and give presentations. All rainbow trout were released in ponds or reservoirs. Steelhead trout were released in the upper Crooked River basin.

### Schools and Groups that work with Eastern Oregon 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.

<p><b>Elementary, Middle, and High Schools</b></p> <ul style="list-style-type: none"> <li>Amity Creek</li> <li>Bear Creek Elementary</li> <li>Bend LaPine Online Classes</li> <li>Burnt River</li> <li>Central Christian School</li> <li>Chiloquin Jr &amp; Sr High School</li> <li>Condon Grade School</li> <li>Crook County Middle School</li> <li>Dayville School</li> <li>Eastmont Community School</li> <li>Freewater Elementary</li> <li>Henley Elementary</li> <li>Heppner High School</li> <li>High Lakes Elementary</li> <li>Jewell Elementary</li> <li>John Tuck Elementary</li> <li>La Pine Elementary</li> <li>Lava Ridge Elementary</li> <li>Metolius Elementary</li> <li>Miller Elementary School</li> </ul>	<ul style="list-style-type: none"> <li>Powell Butte Community School</li> <li>Roosevelt Elementary</li> <li>Sage Community School</li> <li>Saint Francis School</li> <li>Shasta Elementary</li> <li>Sherman Elementary</li> <li>Terrebonne Community School</li> <li>Three Rivers School</li> <li>Vern Patrick Elementary</li> </ul> <p><b>Organizations</b></p> <ul style="list-style-type: none"> <li>Central Oregon Flyfishers</li> <li>Klamath Country Flycasters</li> <li>Sunriver Anglers</li> <li>Sunriver Resort</li> <li>YMCA- Klamath Falls</li> </ul> <p><b>Government</b></p> <ul style="list-style-type: none"> <li>US Forest Service</li> <li>US Fish and Wildlife Service</li> <li>Burns Paiute Tribe</li> </ul> <p><b>Watershed Councils</b></p> <ul style="list-style-type: none"> <li>Walla-Walla Watershed Council</li> </ul>
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Milton-Freewater Pelican Elementary Peterson Elementary Pine Eagle High School Pine Ridge Elementary Ponderosa Elementary Ponderosa Middle School	
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**STEP Administration**

Kevin Herkamp, STEP/RE Program Coordinator  
Debbi Farrell & April Mack, STEP/RE Program Assistant  
Mike Gauvin, Recreational Fisheries Program Manager

This reporting period saw a slight change in program administration. The Program Assistant position was back filled for nearly 4 months while Debbi was on a job rotation.

**EDUCATION AND PROGRAM DEVELOPMENT**

Salmon Trout Advisory Committee

STAC held four meetings across the state:

- December 2015, Salem
- April 2016, Bend
- September 2016, Coos Bay

During this time period, a new Central Oregon Representative (Steve Janego) was appointed, one member resigned (Gary Stover) and four positions were renewed (Curt Bennett, Brian Hudson, Jim Phelps, Tom VanderPlatt). The thirteen STAC members are appointed by the Governor to represent the volunteer community in specific geographic areas of Oregon.

Education Program Updates

In partnership with Western Oregon University, staff initiated an effort to update all the STEP related education materials to meet new education standards and connect Oregonians to salmon, trout and their habitats. Due to several delays, initial materials are expected to be in place by mid-2017.

## APPENDICES

**Appendix 1: Salmon and Trout Enhancement Program Advisory Committee (STAC)**



<b>Member</b>	<b>Region</b>	<b>Term</b>	<b>Term Expires</b>
Richard Bertellotti	North Coast	First Term	January 14, 2017
Gary Stover	North Coast	First Term	October 19, 2017
Brian Hudson	Mid-Coast	Second Term	January 9, 2020
Deborah Yates	Umpqua	First Term	December 31, 2017
Curtis Bennett	Tenmile, Coos, Coquille	First Term	January 9, 2020
Ken Range	Lower Rogue	First Term	March 31, 2017
L. Keith Miller	Upper Rogue	First Term	January 14, 2017
Lin Howell	Lower Willamette	Second Term	July 22, 2018
Tom VanderPlaat	Lower Willamette	Second Term	Jan 9, 2020
Don Wenzel	Mid-Willamette	First Term	January 14, 2017
Jeff DeVore	Upper Willamette	First Term	December 31, 2017
James Phelps	Northeastern Oregon	Second Term	March 31, 2020
Steve Janego	Eastern Oregon	First Term	March 31, 2020

\*List current as of September 30, 2016

<sup>1</sup> A maximum length-of-service policy of two 4-year terms was implemented in 1996.

## Appendix 2: Salmon and Trout Enhancement Program (STEP) Staff



### **Statewide:**

Kevin Herkamp, STEP/R&E Coordinator  
4034 Fairview Industrial Dr. SE, Salem, OR 97302  
Email: [Kevin.Herkamp@state.or.us](mailto:Kevin.Herkamp@state.or.us)

Phone: (503) 947-6232  
Fax: (503) 947-6202

Debbi Farrell, R&E / STEP Program Assistant  
4034 Fairview Industrial Dr. SE, Salem, OR 97302  
E-mail: [Debbi.L.Farrell@state.or.us](mailto:Debbi.L.Farrell@state.or.us)

Phone: (503) 947-6211  
Fax: (503) 947-6202

### **North Coast STEP:**

Ron Rehn, STEP Biologist  
4909 Third Street, Tillamook, OR 97702  
E-mail: [Ron.F.Rehn@state.or.us](mailto:Ron.F.Rehn@state.or.us)

Phone: (503) 842-2741  
Fax: (503) 842-8385

### **Mid-Coast STEP:**

Christine Clapp, STEP Biologist  
2040 SE Marine Science Dr., Newport, OR 97365  
E-mail: [Christine.M.Clapp@state.or.us](mailto:Christine.M.Clapp@state.or.us)

Phone: (541) 265-9894 x253  
Fax: (541) 867-0311

### **Umpqua STEP:**

Evan Leonetti, STEP Biologist  
4192 N. Umpqua Highway, Roseburg, OR 97470  
E-mail: [Evan.Leonetti@state.or.us](mailto:Evan.Leonetti@state.or.us)

Phone: (541) 440-3353  
Fax: (541) 673-0372

### **Tenmile, Coos, and Coquille STEP:**

Gary Vonderohe, STEP Biologist  
P.O. Box 5430, Charleston, OR 97420  
E-mail: [Gary.R.Vonderohe@state.or.us](mailto:Gary.R.Vonderohe@state.or.us)

Phone: (541) 888-5515  
Fax: (541) 888-6860

Tom Rumreich, STEP Biologist  
P.O. Box 5430, Charleston, OR 97420  
E-mail: [Thomas.J.Rumreich@state.or.us](mailto:Thomas.J.Rumreich@state.or.us)

Phone: (541) 888-5515  
Fax: (541) 888-6860

## Appendix 2 (continued)

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### **Lower Rogue STEP:**

John Weber, STEP Biologist  
P.O. Box 642, Gold Beach, OR 97444  
E-mail: [John.A.Weber@state.or.us](mailto:John.A.Weber@state.or.us)

Phone: (541) 247-7605  
Fax: (541) 247-2321

### **Upper Rogue STEP:**

Ryan Battleson, STEP Biologist  
1495 E. Gregory Road, Central Point, OR 97502  
E-mail: [Ryan.D.Battleson@state.or.us](mailto:Ryan.D.Battleson@state.or.us)

Phone: (541) 826-8774  
Fax: (541) 826-8776

### **Lower Willamette STEP:**

Jeff Fulop, STEP Biologist  
17330 SE Evelyn Street, Clackamas, OR 97015  
E-mail: [Jeff.S.Fulop@state.or.us](mailto:Jeff.S.Fulop@state.or.us)

Phone: (971) 673-6034  
Fax: (971) 673-6071

### **Mid-Willamette STEP:**

Karen Hans, STEP Biologist  
7118 NE Vandenberg Avenue, Corvallis, OR 97330  
E-mail: [Karen.M.Hans@state.or.us](mailto:Karen.M.Hans@state.or.us)

Phone: (541) 757-4186 x251  
Fax: (541) 757-4252

### **Upper Willamette STEP:**

Katherine Nordholm, STEP Biologist  
3150 E. Main Street, Springfield, OR 97478  
E-mail: [Katherine.E.Nordholm@state.or.us](mailto:Katherine.E.Nordholm@state.or.us)

Phone: (541) 726-3515 x28  
Fax: (541) 726-2505

### **Eastern Oregon STEP:**

Jennifer Luke, STEP Biologist  
61374 Parrell Road, Bend, Oregon 97702  
E-mail: [Jennifer.A.Luke@state.or.us](mailto:Jennifer.A.Luke@state.or.us)

Phone: (541) 388-6366  
Fax: (541) 388-6281

\*List current as of December 1, 2016