

# Salmon Watch Fall 2023 and Spring 2024 Activity Report

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## **Fall 2023 and Spring 2024 Program Summary**

In the fall of 2023 and Spring of 2024, the Rogue Valley Council of Governments, working on behalf of the NPDES Phase II Stormwater Communities (Ashland, Central Point, Jackson County, Medford, Phoenix, and Talent), Rogue Valley Sewer Services (RVSS), and local water quality programs (TMDLs- including Grants Pass, Josephine County, Phoenix, Talent, and Jacksonville) partnered with the Jackson Soil and Water Conservation District, Bear Creek Watershed Education Partners (BCWEP), the Rogue River Watershed Council, and others to implement the Salmon Watch Program. Classes were conducted primarily in September, October, and early November (week ending November 3<sup>rd</sup>) of 2023 with Talent Middle School participating in 2 days in the Spring of 2024 (April). We also held a special session in December 2023 in partnership with a class from Logos Public Charter School who participated in the Oregon Department of Fish and Wildlife (ODFW) Eggs to Fry program and released fry as part of the Salmon module into the Rogue River. Overall, 32 field days were conducted with 28 schools and over 1,860 students. Classes represented schools from the Bear Creek Valley, greater Jackson County, and Grants Pass/Josephine County.

In addition, 20+ organizations, agencies, and municipalities donated their time to the program and provided in-kind match to the program. The match reduces program costs and also allows us to leverage grant funding for the program. Details on the class dates, field locations, schools involved, number of students, and other information (e.g., volunteer instructors) can be found in the Table 1.

The Salmon Watch program received financial support from the Jackson Soil and Water Conservation District, in addition to the Bear Creek DMAs and MS4s, Josephine County, and the City of Grants Pass. We continued our partnership with the Army Corps of Engineers operating under the MOU established for the program to host out of McGregor Park near Trail. In addition, we continued to work with Oregon State Parks and Jackson County to waive some fees for park

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use (Tou Velle, Valley of the Rogue, and Cantrall Buckley). ODFW has also continued to provide fish for the dissection module, in addition to donating time for training and instruction.

In addition to the field classes, there are a number of other program activities that are conducted to implement the program. Activities include an instructor training held on August 22<sup>nd</sup> and 23<sup>rd</sup> for both contracted educators and volunteer instructors, recruiting schools and instructors through emails, personal contacts, and at events, advertising the program, completing before and after program surveys, providing in-school presentations (limited outside of RVSS' jurisdictions), coordinating logistics for the program (schools, sites, programs, and instructors), obtaining permits for site use at state parks (Tou Velle), managing contracts for instructors, providing reimbursements for program expenses (transportation, parking fees, and program equipment and supplies), maintaining and stocking kits, and other logistics.

### **Salmon Watch Field Day**

For most classes, the format is the same in terms of timing, modules, and other logistics. There are exceptions for classes that make special arrangements (e.g., Scenic Middle School).

Salmon Watch field days are scheduled for around 4.5 hours (time of classes on-site) at field locations spread throughout Bear Creek and the Middle Rogue Watershed. Field sites include (although not all are used every year) Cantrall Buckley Park, Griffin Creek at Scenic Middle School, McGregor Park, Tou Velle State Park, Valley of the Rogue State Park, Reinhart Volunteer Park, Fish Hatchery Park, Palmerton Park, and numerous sites along Bear Creek (Bear Creek Park, Blue Heron Park, Coyote Trails Nature Center, Lynn Newbry Park, Cascade Christian High School, and North Mountain Park).

The “classic” four module model is used from the Salmon Watch Curriculum for the programs. Instructors are assigned stations to discuss Salmon Biology/Salmon Life Cycle (station 1), Water Quality (station 2), Macroinvertebrates (station 3), and Riparian Areas (station 4). Each station also has activities for students, including salmon viewing (when spawning), salmon dissection, water quality testing, macroinvertebrate sampling, native plant identification, drawing riparian cross sections and longitudinal profiles, scavenger hunts, and shade surveys. Classes are divided up into 4 groups and rotated through the stations at approximately 35 minutes, allowing every student to participate in each of the four stations. Examples of completed activity forms are included in Appendix A and an example schedule is presented below:

#### *Schedule*

9:00-9:15	Intro (Lead Instructor)
9:15-9:50	Rotation 1
9:55-10:30	Rotation 2
10:35-11:10	Rotation 3
11:15-12:00	Lunch
12:05-12:40	Rotation 4
12:45 - 1:30	Wrap-Up (Lead Instructor)

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There are a few exceptions to the field day, most notably at Scenic Middle School. Due to the size of the class, the program is structured over 8 days where one module (e.g., Salmon) is taught to all 5 of the 8<sup>th</sup> grade periods for the class. In addition, for smaller classes (30 students or less), we have adjusted the schedule to use only 3 instructors teaching the four sessions. One session (usually riparian) is either shared amongst the instructors or taught once by each instructor onsite.

### **Field Day Statistics**

Table 1.1 summarizes all of the Salmon Watch classes completed in the fall of 2023 and spring of 2024. Information on the dates, field locations, schools/districts, grade levels, number of students, and contributing partner organizations (volunteer instructors) are included in the table.

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**Table 1.1: 2023/2024 Salmon Watch Field Trip Information**

Class Number (Field Days)	Date	Location	School	Grade	Number of Students	Partners (organizations providing match instructor time)
1	9/19/2023	McGregor Park (MG)	Mae Richardson Elementary	4th	60	RVCOG, SOLC
2	9/20/2023	MG	Crater Renaissance Academy	9th/10th	45	KT, RVSS
3	9/21/2023	MG	Talent Elementary & Bellview Elementary	4th	68	RVSS
4	9/25/2023	MG	Bellview Elementary	2nd/3rd/5th	76	ODFW, RVCOG
5	9/26/2023	MG	Crater Lake Charter	4th/5th	60	BLM, RVSS
6	9/27/2023	MG	Butte Falls Elementary & Orchard Hill Elementary	4th/5th	59	TFT, BLM
7	9/28/2023	Reinhart Volunteer Park (RVP)	Allen Dale Elementary	5th	75	RR, SOFRC, RVCOG
8	10/3/2023	MG	Roosevelt Elementary	5th	67	RVSS
9	10/4/2023	MG	Shady Cove Elementary	3rd/7th	48	BLM, SOFRC
10	10/5/2023	MG	Helman Elementary & CAMP	5th-8th	70	RVCOG
11	10/9/2023	Griffin Creek	Scenic Middle School	7th	100	RVCOG, CP
12	10/10/2023	Griffin Creek	Scenic Middle School	7th	100	RVCOG, CP
13	10/10/2023	Tou Velle State Park (TV)	Talent Elementary & Elemental Forest School	2nd-5th	59	SOLC, RVSS
14	10/11/2023	Griffin Creek	Scenic Middle School	7th	100	RVCOG
15	10/12/2023	Griffin Creek	Scenic Middle	7th	100	RVCOG

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			School			
16	10/12/2023	TV	Griffin Creek Elementary	4 <sup>th</sup>	60	RVSS
17	10/17/2023	TV	Kennedy Elementary & Talent Elementary	4th/5 <sup>th</sup>	66	PPRV, RVSS
18	10/18/2023	TV	Orchard Hill & Woodland Charter	4th/5th	73	MWC, RVCOG, SOFRC
19	10/19/2023	TV	Kennedy Elementary, St. Mary's School, and Sylvies River	1st-8th & 12th	58	RVCOG, TFT
20	10/20/2023	TV	Outdoor Discovery Program	K-5th	54	SOLC, RBP, RRK
21	10/23/2023	TV	Walker Elementary	4th	40	MWC
22	10/24/2023	TV	Sams Valley Elementary	5th	45	RR, MWC, JSWCD
23	10/25/2023	TV	Kids Unlimited Academy	6th-8th	67	RVCOG, RRK
24	10/26/2023	TV	Helman Elementary & Trails Outdoor School	4th/5th	56	BCWEP
25	10/31/2023	Cascade Christian	Cascade Christian Middle School	7th	67	RVCOG, BCWEP
26	11/1/2023	TV	Oak Grove Elementary	4th	60	BLM, MWC, USFS
27	11/2/2023	TV	Griffin Creek Elementary, Talent Elementary, Pinehurst Elementary	1st-6th	63	RVCOG, BCWEP
28	12/14/2023	TV	Logos Public Charter School	K-5th	51	SOLC, RVSS
29	4/11/2024	Blue Heron Park	Phoenix-Talent School District	7th	76	SOFRC, RRWC, RVSS, RVCOG, PPRV
30	4/12/2024	Blue Heron Park	Phoenix-Talent School District	7th	76	SOFRC, RRWC, RVSS, RVCOG, PPRV

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## Color Legend

<b>MS4 or DMA</b>
<b>All. Regional Enrollment.</b>
<b>Medford</b>
<b>Phoenix/Talent</b>
<b>Central Point</b>
<b>Ashland</b>
<b>Josephine County/Grants Pass</b>
<b>Other Schools – Jackson County</b>

**Table 2: Key to Instructional Partners and Project Supporters**

<b>Abbreviation</b>	<b>Organization Name</b>	<b>Support Detail</b>
BLM	U.S. Dept. of Interior, Bureau of Land Management	Module Instruction, Training Video Production, Program Site (Provolt)
CP	City of Central Point	Module Instruction
GH	Gold Hill	City of Gold Hill
JC	Jackson County	Site Access, Fee waivers (Cantrall Buckley), Module Instruction
KT	Kid Time	Module Instruction
MWC	Medford Water Commission	Module Instruction
ODFW	Oregon Dept. of Fish & Wildlife	Module Instruction, Supplies, fish
OSPK	Oregon State Parks	Fee waivers
PPRV	Pollinator Project Rogue Valley	Module Instruction
RR	City of Rogue River	Module Instruction
RBP	Rogue Basin Partnership	Module Instruction
RRK	Rogue Riverkeeper	Module Instruction
RRWC	Rogue River Watershed Council	Module Instruction
RVCOG	Rogue Valley Council of Governments	Module Instruction, Coordination, Admin
RVSS	Rogue Valley Sewer Services	Module Instruction, Coordination,
SOFRC	Southern Oregon Forest Restoration Collaborative	Module Instruction
SOLC	Southern Oregon Land Conservancy	Module Instruction
TFT	The Freshwater Trust	Module Instruction
USACE	Army Corps of Engineers	Site access/facility use, hand washing stations, fee waivers
USFS	Forest Service	Module Instruction
BCWEP*	Bear Creek Watershed Education Partners (*Volunteers – Former Board Members)	Module Instruction

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## Pre and Post Program Surveys

Surveys are used to evaluate what students learned in the program and provide a measure of the effectiveness of the program. Surveys are provided to classes prior to and after the field day is completed. Any changes in survey results provide an indication of what the students learned and how effective the instructors were.

A general survey is sent out to all participants and additional surveys are provided to select classes (e.g., Scenic Middle School).

*Survey Results (as of 5/9/2024)*

### *General Program Results*

Before and after surveys were conducted with students from all schools, except Scenic Middle School. 616 students responded to the pre-program survey and 257 responded to the post-program survey. Average scores increased from 3.16/16 (19.8% correct answers) to 5.97/16 (37.3%). Details on the results and questions frequently missed can be found below.

### *Pre-Program Frequently Missed Questions*

Frequently missed questions ?	
Question	Correct responses
1. What is a watershed?	270 / 616
2. Which items below can make streams unhealthy?	100 / 616
4. What kinds of fish in the Rogue River are born in freshwater and travel to the ocean to grow to be adults and back to freshwater to reproduce?	30 / 616
5. What do salmon need to be healthy in our streams?	47 / 616
6. What is a riparian area?	236 / 616
7. Riparian areas are good for streams because:	156 / 616

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## *Post-Program Frequently Missed Questions*

Frequently missed questions ?	
Question	Correct responses
2. Which items below can make streams unhealthy?	81 / 257
4. What kinds of fish in the Rogue River are born in freshwater and travel to the ocean to grow to be adults and back to freshwater to reproduce?	27 / 257
5. What do salmon need to be healthy in our streams?	91 / 257
7. Riparian areas are good for streams because:	70 / 257

### *Scenic Middle School*

Before and after surveys were conducted with students from Scenic Middle School. 293 students responded to the pre-program survey and 142 responded to the post-program survey. Scores increased from 6.96/21 (33.1% correct answers) to 10.13/21 (48.2%). Details on the results and questions frequently missed can be found below. It should be noted that the questions for the Scenic Middle School survey and general survey are different, although there is considerable overlap in the questions asked.

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## Pre-Program Frequently Missed Questions – Scenic Middle School

Question	Correct responses
What is the scientific term for a fish that spends part of its life cycle in salt water and part in fresh water	107 / 293
3. Which items below can make streams unhealthy (pollute the streams or make them unhealthy for fish and aquatic species)?	55 / 293
4. What is a macroinvertebrate?	120 / 293
6. What kinds of fish in the Rogue River (and local creeks including Griffin) are NOT born in freshwater and travel to the ocean to grow to be adults and back to freshwater to reproduce?	15 / 293
8. Healthy riparian areas are important for streams because:	12 / 293
9. Which of the following do salmon need to be healthy in our streams?	21 / 293

## Post-Program Frequently Missed Questions – Scenic Middle School

Question	Correct responses
3. Which items below can make streams unhealthy (pollute the streams or make them unhealthy for fish and aquatic species)?	63 / 142
6. What kinds of fish in the Rogue River (and local creeks including Griffin) are NOT born in freshwater and travel to the ocean to grow to be adults and back to freshwater to reproduce?	7 / 142
8. Healthy riparian areas are important for streams because:	17 / 142
9. Which of the following do salmon need to be healthy in our streams?	34 / 142

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## Next Steps and Recommended Program Changes

- Update the training materials, specifically the instructor manuals and reference guides. In addition, create an outline of how to teach each module/section for new instructors.
- Change the training format to host a mock field day which better shows all program elements, how to teach, teaching points, and suggested kit use.
- Add in hands on activities for several of the stations for program use and for events (e.g., life cycle figurines, salmon game).
- Host a pre-season “open house” as part of the training featuring new materials, modules, and other changes to the program.
- Review and update the survey questions.
- Continue to work with municipal separate storm sewer systems (MS4), designated management agencies (DMA), Jackson SWCD, Stream Smart, and other partners to continue the program.
- Work with local, regional, and statewide programs to continue to expand the program. Expansion would be additional programs offered (number), new field locations, and modules (Fire Ecology – SOFRC), Stormwater (NMP), and Cultural/Native American History (NMP).
- Continue to add programs later in the season and in the spring as time and resources allow. Timing is to allow better coordination with ODFW’s in-class fish program where schools grow salmon from eggs and release them later in the year.
- Continue to expand the program by adding back in service learning programs and bringing back the Student Education Symposium if possible (phasing programs back in).
- Use survey results to refine the program teaching points as needed.
- Continue to highlight the program as an important regional Stream Smart program.
- Establish geocaches at field site locations.
- Establish permanent locations for the modules at the established field locations:
  - Map locations of sites, and
  - Flag areas and/or map locations of the class layouts for each field site.

## New in 2023

- Salmon Watch Open House – program debriefing with instructors to get feedback on the program, recommended changes, etc.
- Salmon Watch Kit Cleaning Work Party – a small work party with 5 instructors came to RVCOG and helped clean out and reorganize the Salmon Watch kits. Snacks and drinks were provided (funded through the Stream Smart BottleDrop Give account).
- A 5<sup>th</sup> station module was incorporated into the spring Salmon Watch field trips at Blue Heron Park on April 11<sup>th</sup> and 12<sup>th</sup>. This module is currently offered through Pollinator Project Rogue Valley.

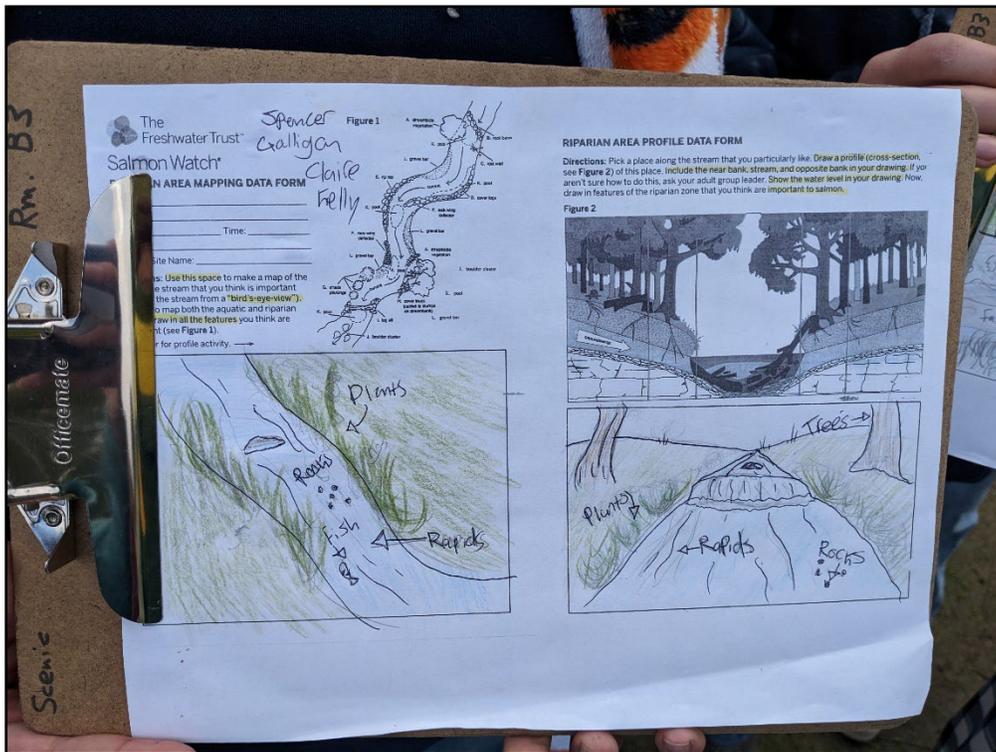
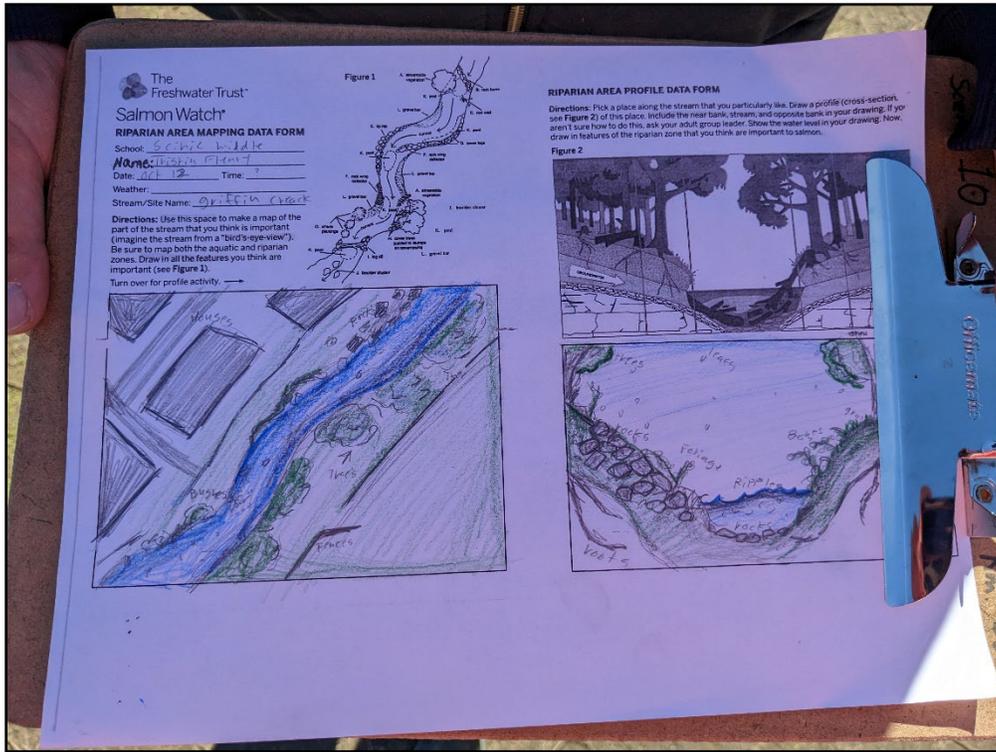
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## Program Photos



Appendix A: Data Sheet/Activity Examples



**Appendix B: Salmon Watch Wrap-Up for Fall 2023**



**Salmon Watch Program Summary – Fall 2023**

**Another Successful Year in the Books!**

In collaboration with partners and volunteers, we were able to provide 7 weeks of field trips, bringing students outdoors to learn about their local watersheds. Thanks to funding from the Jackson Soil & Water Conservation District and contributions from the water quality programs of local cities (Ashland, Central Point, Grants Pass, Jacksonville, Medford, Phoenix, and Talent) and counties (Jackson and Josephine), as well as seventeen additional partner organizations, we were able to provide no-cost field trips to students primarily in grades 3rd-8th from nine school districts and twelve private/charter schools in the Rogue Basin. In addition, we taught mixed (1<sup>st</sup> through 5<sup>th</sup>) and AP high school classes. Collaboration and partnership make it happen!

- # of students served: 1,706
- # of schools participating: 28
- # of individual instructors contributing: 34

**Coordinating agencies:**



Students learning about the Rogue River Basin and the importance of watersheds.



**Students learn at 4 stations:**

- Salmon Biology
- Riparian Ecology
- Water Quality
- Macroinvertebrates

Students collecting macroinvertebrates using D-nets.



**Thank you, Salmon Watch Partners!**

