Fall 2022 Program Summary

In the fall of 2022, 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 4th) of 2022. We also held a special session in December 2022 in partnership with a class from Logos School who participated in the eggs to fry program and released fry as part of the Salmon module into the Rogue River. Overall, 28 field days were conducted with 48 classes and over 1,250 students. Classes represented schools from the Bear Creek Valley, Greater Jackson County, and Grants Pass/Josephine County.

In addition, 15 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 2022 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. In addition, we continued to work with Oregon State Parks and Jackson County to waive some fees for park use (Tou Velle, Valley of the Rogue, and Cantrall Buckely). 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 September 14th and 15th 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.

In 2022, the program was impacted by the lingering effects of COVID with availability of volunteer instructors being more limited and restrictions in availability of buses resulting in shorter programs, especially for schools heading to McGregor. We also had several schools cancel programs which was unusual. We were able to fill 2 of the 4 cancellations.

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 and McLoughlin 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, Reinhardt 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, at Cascade Chrsitian 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)

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 8th 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.

2022 Field Day Statistics

Table 1 summarizes all of the Salmon Watch classes completed in the fall of 2022. Information on the dates, field locations, schools/districts, number of students, grade levels, number of classes, and contributing partner organizations (volunteer instructors) are included in the table.

Table 1.1: 2022 Salmon Watch Field Trip Information

Class Number (Field Days)	Date	Location	School	Grade	Number of students	Partners (organizations providing match instructor time)
1	9/20/2022	McGregor (MG)	Abraham Lincoln Elementary	6th	52	Rogue Valley Council of Governments (RVCOG), Southern Oregon Land Conservancy (SOLC), The Freshwater Trust (TFT)
2	9/22/2022	MG	Butte Falls Charter	4th/5th	61	RVCOG, SOLC, Kid Time (KT), and Rogue Valley Sewer Services (RVSS)
3	9/27/2022	MG	Talent and Bellview Elementary	4th/5th	63	RVCOG, RVSS
4	9/28/2022	MG	Shady Cove Charter	4th/5th	39	RVCOG, RVSS
5	9/29/2022	Palmerton Park	Rogue River Elementary	5th	60	RVCOG, RVCOG, Rogue River Keeper (RRK)
6	10/3/2022	MG	Shady Cove Elementary	3rd	26	RVSS, RVCOG
7	10/4/2022	MG	Talent Elementary	4th	46	City of Rogue River and Gold Hill
8	10/5/2022	MG	Ruch Outdoor Community School	7th/8th	56	Oregon Department of Fish and Wildlife (ODFW), TFT
9	10/6/2022	MG	Roosevelt Elementary	5th	54	ODFW, RVCOG
10	10/11/2022	Tou Velle State Park (TV)	Oak Grove Elementary	4th	64	RVSS, BCWEP*
11	10/12/2022	Bear Creek at Cascade Christian	Cascade Christian High School	7th/8th	56	RVCOG
12	10/13/2021	MG	Walker Elementary in Ashland	4th	45	RVCOG, RVSS
13	10/18/2022	MG	Sams Valley Elementary	5th	44	Medford Water Commission (MWC)
14	10/19/2022	Blue Heron Park	Phoenix Elementary	4th	46	RVCOG
15	10/20/2022	MG	Phoenix Elementary	5th	55	RVSS, Kid Time
16	10/24/2022	Griffin Creek at Scenic Middle School (GC-SMS)	Scenic Middle School (SMS)	8th	125	City of Central Point (CP)

17	10/24/2022	GC-SMS	SMS	8th	125	RVCOG
18	10/25/2022	GC-SMS	SMS	8th		CP
19	10/25/2022	GC-SMS	SMS	8th		RVCOG
20	10/25/2022	Reinhardt Park	Allendale Elementary	5th	69	RVCOG, Bureau of Land Management (BLM)
21	10/26/2022	Bear Creek at Sports Park Nature Center	Talent Elementary	4th/5th	28	BLM, SOLC
22	10/27/2022	GC-SMS	SMS	8th		RVCOG
23	10/27/2022	GC-SMS	SMS	8th		
24	10/28/2022	GC-SMS	SMS	8th		RVCOG
25	10/28/2022	GC-SMS	SMS	8th		
26	11/1/2022	TV	Kennedy Elementary	5th	69	TFT, Jackson County
27	11/3/2022	Bear Creek Park	Kids Unlimited	6th	54	TFT
28	12/15/2022	TV	Logos		30	RVCOG, RVCOG, ODFW, Rogue River Watershed Council

28 1267 Totals

Color Legend

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

Table 2: Key to Instructional Partners

Abbreviation	Organization Name	Support Detail
ACOE	Army Corps of Engineers	Site access/facility use, hand washing stations, fee waivers
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
CPRTY	Central Point Rotary	Funding Support
GH	Gold Hill	City of Gold Hill
JC	Jackson County	Site Access, Fee waivers (Cantrall Buckley), Module Instruction
JSWCD	Jackson Soil & Water Conservation District	Match Funding, Module Instruction
MWC	Medford Water Commission	Module Instruction
ODFW	Oregon Dept. of Fish & Wildlife	Module Instruction, Supplies
OSPK	Oregon State Parks	Fee waivers
KT	Kid Time	Module Instruction
SOLC	Southern Oregon Land Conservancy	Module Instruction
RR	City of Rogue River	Module Instruction
RRK	Rogue Riverkeeper	Module Instruction
RRWC	Rogue River Watershed Council	Module Instruction
RVCOG	Rogue Valley Council of Governments	Module Instruction, Coordination, Admin
RVS	Rogue Valley Sewer Services	Module Instruction, Coordination,
TFT	The Freshwater Trust	Module Instruction
BCWEP*	Bear Creek Watershed Education Partners (*Volunteers – Former Board Members)	Module Instruction

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 11/18/22)

General Program Results

Before and after surveys were conducted with students from all school except Scenic Middle School. 600 students responded to the pre-program survey and 421 responded to the post-program survey. Average scores increased from 2.82/16 (17.6% correct answers) to 5.16/16 (32.3%). Details on the results and questions frequently missed can be found below

Pre-program

Frequently missed questions

Question	Correct responses
1. What is a watershed?	257 / 600
2. Which items below can make streams unhealthy?	94 / 600
3. What is a macroinvertebrate?	244 / 600
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?	38 / 600
5. What do salmon need to be healthy in our streams?	45 / 600
6. What is a riparian area?	176 / 600
7. Riparian areas are good for streams because:	81 / 600

Post-Program Results

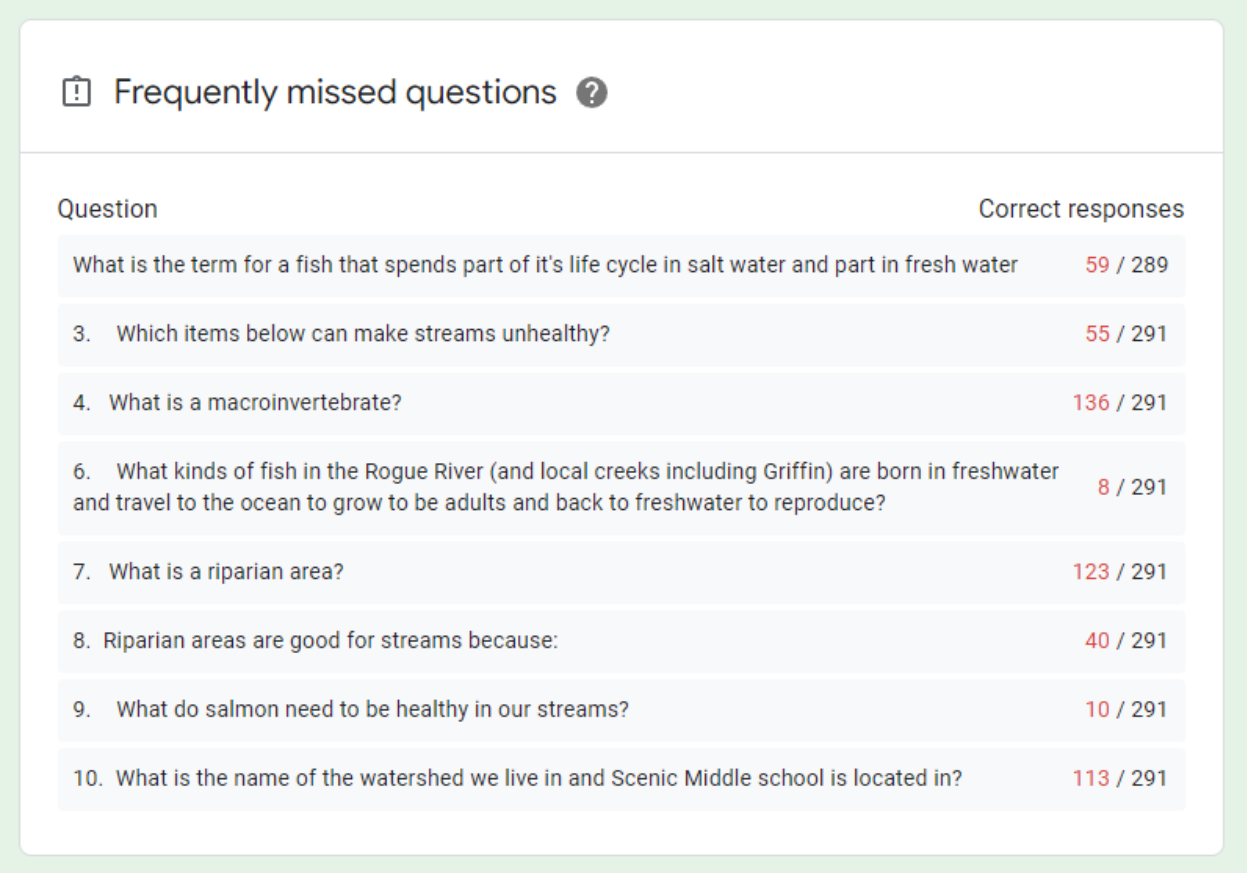
Frequently missed questions

Question	Correct responses
2. Which items below can make streams unhealthy?	142 / 421
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?	35 / 421
5. What do salmon need to be healthy in our streams?	89 / 421
7. Riparian areas are good for streams because:	107 / 421

Scenic Middle School

Before and after surveys were conducted with students from Scenic Middle School. 291 students responded to the pre-program survey and 123 responded to the post-program survey. Scores increased from 6.48/22 (29.5% correct answers) to 9.68/22 (44%). Details on the results and questions frequently missed can be found below. It should be noted that the questions for the Scenic survey and general survey are different, although there is considerable overlap in the questions asked.

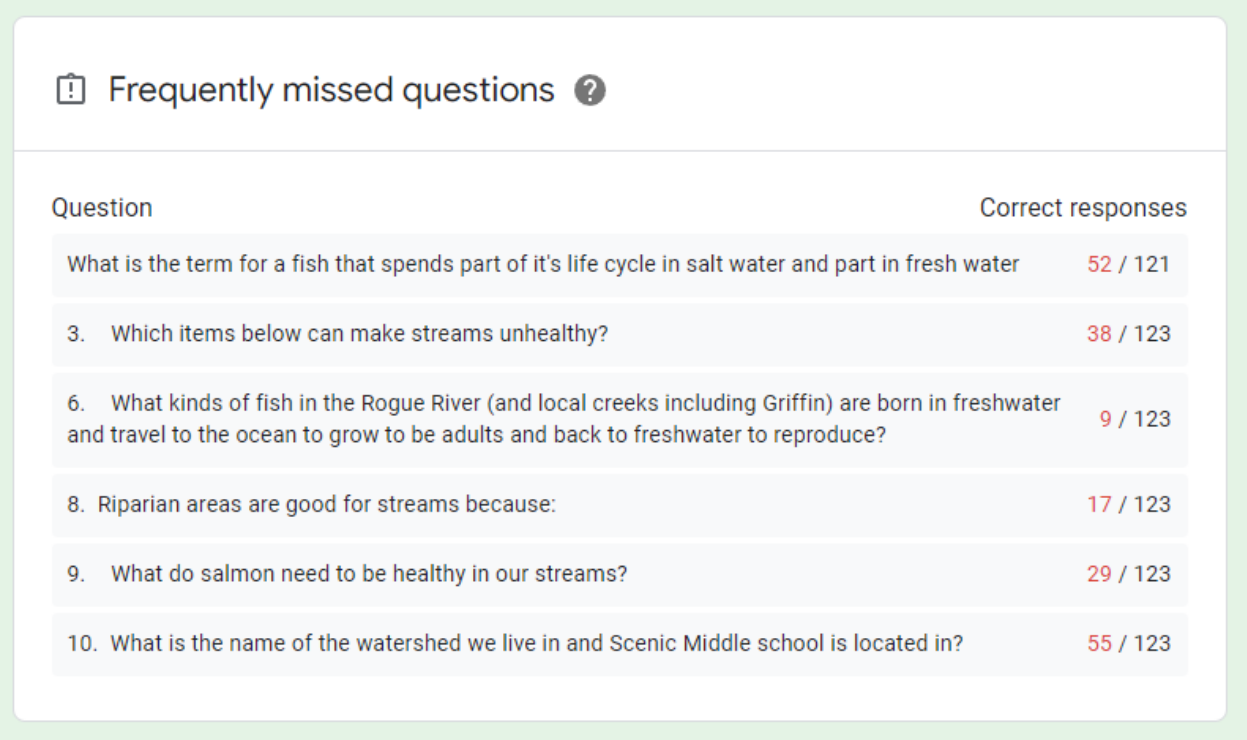
Pre Program Scenic Middle School



Frequently missed questions

Question	Correct responses
What is the term for a fish that spends part of it's life cycle in salt water and part in fresh water	59 / 289
3. Which items below can make streams unhealthy?	55 / 291
4. What is a macroinvertebrate?	136 / 291
6. What kinds of fish in the Rogue River (and local creeks including Griffin) are born in freshwater and travel to the ocean to grow to be adults and back to freshwater to reproduce?	8 / 291
7. What is a riparian area?	123 / 291
8. Riparian areas are good for streams because:	40 / 291
9. What do salmon need to be healthy in our streams?	10 / 291
10. What is the name of the watershed we live in and Scenic Middle school is located in?	113 / 291

Post Surveys



Frequently missed questions

Question	Correct responses
What is the term for a fish that spends part of it's life cycle in salt water and part in fresh water	52 / 121
3. Which items below can make streams unhealthy?	38 / 123
6. What kinds of fish in the Rogue River (and local creeks including Griffin) are born in freshwater and travel to the ocean to grow to be adults and back to freshwater to reproduce?	9 / 123
8. Riparian areas are good for streams because:	17 / 123
9. What do salmon need to be healthy in our streams?	29 / 123
10. What is the name of the watershed we live in and Scenic Middle school is located in?	55 / 123

Next Steps and Recommended Program Changes

- 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 regional (e.g., Rogue Basin Partnership) and statewide groups (e.g., World Salmon Council) to expand the program in the Rogue Basin and tie in with statewide programs.
- 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 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 (in development):
    - Map locations of sites, and
    - Flag areas and/or map locations of the class layouts for each field site.

Program Photos

Appendix A: Data Sheet/Activity Examples

The Freshwater Trust

Salmon Watch®

RIPARIAN AREA MAPPING DATA FORM

School: BCCMC

Date: [illegible] Time: 12:12

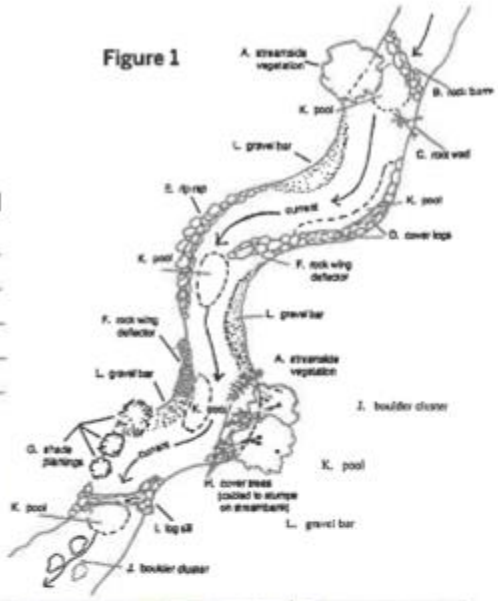
Weather: Cold but Sunny

Stream/Site Name: _____

Directions: Use this space to make a map of the part of the stream that you think is important (imagine the stream from a "bird's-eye-view"). Be sure to map both the aquatic and riparian zones. Draw in all the features you think are important (see **Figure 1**).

Turn over for profile activity. →

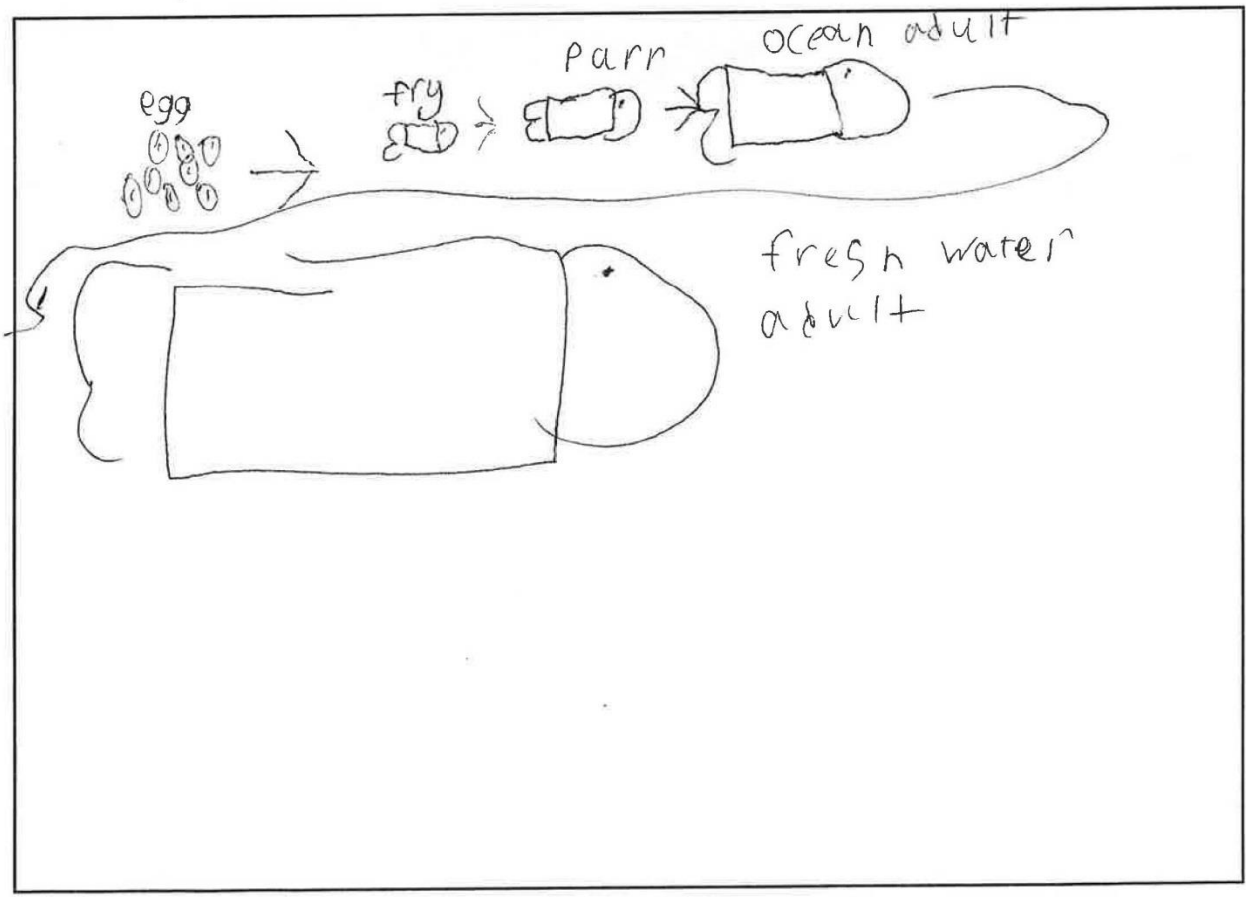
Figure 1



RIPARIAN AREA PROFILE DATA FORM

Directions: Pick a place along the stream that you particularly like. Draw a profile (cross-section, see **Figure 2**) of this place. Include the near bank, stream, and opposite bank in your drawing. If you aren't sure how to do this, ask your adult group leader. Show the water level in your drawing. Now, draw in features of the riparian zone that you think are important to salmon.

Figure 2



Appendix B: Report Highlight Summary Fall 2022

Salmon Watch Program Summary Fall 2022

Another Successful Year in the Books!

With some continuing challenges including limited hours for bus drivers for some districts, and instructor shortage, and cancellations, we provided field trips over seven weeks, bringing students outdoors to learn about their local watersheds. Thanks to funding from the Jackson Soil & Water Conservation District, Central Point Rotary, and contributions from the water quality programs of local cities (Jacksonville, Ashland, Phoenix, Talent, Medford, Central Point, Grants Pass) and counties (Jackson and Josephine) as well as fourteen additional partner organizations we were able to provide no-cost field trips to students in grades 3rd-8th from nine school districts and five private/charter schools in the Rogue basin. Collaboration and partnership make it happen.

We could not do it without your support. Thank you!

Coordinating agencies:

# of students served: over 1260

# of schools participating: 19

# of individual instructors contributing: 24

Students learning about the importance of healthy riparian areas

Students learn at four stations:

- Salmon Biology
- Riparian Ecology
- Water Quality
- Macroinvertebrates

Students observing salmon and salmon behavior at McGregor Park

Thank you to our Salmon Watch Partners!