



**SALMON
WATCH
BENTON COUNTY**

**Teacher's
Guide
2025**



Benton Soil and Water
CONSERVATION DISTRICT

Station 2: Riparian Ecology

OVERVIEW

Students use scientific tools and their own observations to learn about stream health, and the connections between living and non-living things in a watershed.

LEARNING GOALS

- Students will understand that interactions between fish and forests are complex and changing.
- Students will appreciate the importance of healthy forests for healthy salmon populations, and vice-versa.
- Students will learn how riparian areas provide functions or 'jobs' in the watershed, but only if they are healthy.

VOCABULARY

Riparian, ecology, erosion, stream bank, survey, runoff, canopy, riffle, pool, run

WAYS TO PREPARE YOUR STUDENTS

- Watch Video: [How forests, rivers, and salmon were meant to be together](#) (4 mins)
- Explore the [Salmon River 360: Virtual Tour](#)
- Watch Video: [Welcome to the Riparian Zone](#) (3 mins)

MORE LEARNING RESOURCES

- [Measuring Stream Canopy Closure using a Spherical Densimeter](#) (Video)
- [Introduction to Riparian Areas](#) (World Salmon Council)
- [What are riparian ecosystems?](#)



RIPARIAN ECOLOGY: STREAM SURVEY


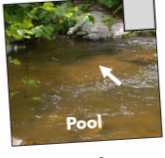
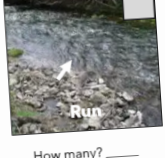
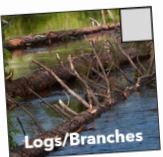

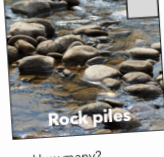
All rivers and streams need a lot of different features and shapes in order to create healthy habitat for the fish and other animals that live in them. Three main types of stream features that you will be looking for are:

RIFFLES: shallow, fast-moving water with bubbles or white waves, also sometimes called rapids.

POOLS: deep holes of still or slow-moving water with a flat surface.

RUNS: stretches of fast-moving water where the river is straight and not blocked by rocks or logs.

Other features which add complexity to a stream, and which are very important for salmon, are logs, rocks, and leaves. Check off the stream features you see, and how many of each, below!

 Riffle How many? ____	 Pool How many? ____	 Run How many? ____
 Logs/Branches How many? ____	 Leaf piles How many? ____	 Rock piles How many? ____

RIPARIAN ECOLOGY: NATIVE PLANT SURVEY

A healthy riparian zone needs a lot of native plants. Native plants are plants that are found naturally in the area - plants that have been here since before European settlers arrived. Native plants include flowers, trees, shrubs, and grasses. See how many of the following you can spot!

 Horsetails	 Ash tree	 Douglas Fir
 Snowberry	 Salmonberry	 Bracken Fern
 White Alder	 Licorice Fern	 Salal

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Pre- and Post-Program Activities to Extend Learning

[World Salmon Council Classroom Curriculum](#)

The Salmon Watch curriculum is designed to provide a holistic, multi-disciplinary and watershed-based approach to environmental education, using the salmon as the key indicator species of watershed health and the cultural icon of the Pacific Northwest.

The learning units contain many different ideas, lessons, and supplementary resources to help in your teaching about nature, salmon, water quality, and human choices. Resources include student hand-outs, sample lesson plans, PowerPoint presentations, and more.

[Salmon Watch Streaming](#)

This “virtual field trip” series includes six eye-catching short films created by award-winning filmmakers at Freshwaters Illustrated, interactive online quiz games, 360° Virtual Tours that bring the river to you, and more. Access all of these resources for FREE by clicking “I’m an Educator” and then completing the request form. You can also sign up for the World Salmon Council newsletter for more information about all of the great work they do!

[Secret Lives of Salmon Classroom Curriculum](#)

“Secret Lives of Salmon” is a place-based educational curriculum developed by the Cascade Head Biosphere Reserve, Oregon Coast Aquarium, and the Lincoln County School District. This 3rd Grade program explores the life cycle of Pacific salmon species, providing students an overview of wild salmon adaptations and habitats, how they differ from hatchery-raised fish, and ways that humans affect aquatic species.

Resources within this program include five videos which guide students through the salmon life cycle in the awe-inspiring Cascade Head Biosphere Reserve on the Central Oregon Coast. This video series is a learning journey paired with interactive activities, providing the tools needed for a complete lesson plan. This program will provide hands-on opportunities for learning and exploration about local species, human-environment interactions, ecosystem interconnectedness, and more.

[Online Student Pre- and Post-Assessment](#)

World Salmon Council has created an online Salmon Watch assessment form that makes it easy to gauge students’ knowledge both before and after the program. The assessment includes questions about each field trip station, their beliefs about conservation, and their understanding about the importance of salmon in the ecosystem. Direct each student to the link above, and make sure when they are done, they hit SUBMIT. Their responses will be used by World Salmon Council to assess the Salmon Watch program.

Alternatively, Benton SWCD has created a Google Forms version of the above assessment that you can use. Unlike the WSC form above, this version allows both the teacher and our Salmon Watch Program Coordinator to access student responses. (Responses will be e-mailed to all participating teachers at the conclusion of Salmon Watch season).

[Access the Google Form student assessment here.](#)

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- Check their e-mail frequently for communications from the Program Coordinator and respond quickly when requested.
- Sign up for their Fall field trip by the deadline provided (usually by the end of September).
- Order their bus and substitute teacher (if needed) as soon as possible.
- Attend a Salmon Watch Teacher Training in September (optional for previous participants)
- Visit your field trip site before your scheduled program date (optional - contact your Program Coordinator if you would like a guided tour of the field trip site).
- Recruit at least 4 adult chaperones at least two weeks before your scheduled field trip.
- Provide the below Chaperone Responsibilities page to all of your chaperones and ensure that they understand program logistics, schedules, etc.
- Incorporate Salmon Watch-related topics and activities into your classroom lessons as appropriate.
- Discuss proper field trip behavior, attire, and safety protocol with students prior to field trip.
- After the field trip, complete and return Student Assessments.

Check out our virtual field trip video!

<https://www.youtube.com/watch?v=qLv1y0c3kPU>

SALMON WATCH CHAPERONE RESPONSIBILITIES

Thank you for volunteering to be a chaperone at your school's upcoming Salmon Watch field trip. You have an amazing experience ahead of you! Being a Salmon Watch Volunteer is a challenging and rewarding job. Jump in! Get involved! Above all, have fun!

Here are a few suggestions to help you.



What is my role as a Chaperone?

You will be working with students in the field, sharing your perspective and maximizing their learning experience. Please demonstrate exemplary behavior and attitude in the natural environment. Your curiosity will lead others to follow suit.

You are responsible for the health and safety of these people when they are engaged in activities led by you. Safety must be a top priority. It's better to be too conservative than to have an injury. Don't let kids climb on logs or boulders. If you have a student and/or adult along who is not surefooted, make sure they get assistance.

Student Management

- Introduce yourself and help your group get to know you.
- Learn the kids' names and know how many students are in your group.
- Clearly communicate expectations and potential hazards and reinforce rules and boundaries set forward by the Program Coordinator and Station Leaders.
- Keep a constant head count of your group.
- Monitor students for behavioral issues. Ensure they are acting respectfully toward each other, the Station Leaders, and the environment around them.
- Support Station Leaders by helping them to get students' attention, quiet students down when needed, and pull aside any students causing distractions or issues so that Station Leaders can provide instruction.

How can I help students get the most out of their field trip?

- Talk with the teacher about their goals for the trip. Be sure you understand the plan and schedule for the day.
- Review Salmon Watch activities before your trip (available online at www.lbsw.org).
- Utilize "teachable moments" during the day: be alert to unique opportunities that may offer a springboard for further discussion.

DRIVING DIRECTIONS TO CLEMENS COUNTY PARK

From Corvallis, take Highway 20 west through Philomath. Turn left onto Highway 34. Continue on this road for about 14 miles (take care on the windy portions and watch out for large trucks). A few minutes after you pass the Thyme Garden, turn left onto Seeley Creek Road. Follow this road around a sharp right turn until you cross the bridge into a large parking lot. If possible, please park on the side with the restrooms to save room for the bus(es).

SALMON WATCH PROGRAM

PARENT INFORMATION SHEET AND PACKING LIST

Field Trip Date: _____

Field Trip Location: Clemens County Park, Alsea



Salmon Watch is an exciting outdoor field trip that we hope your child remembers for the rest of their life! Your child will spend the day learning about rivers, fish, ecology, and how they can help local ecosystems. This field trip is led by staff at Benton Soil and Water Conservation District and a team of dedicated volunteer Station Leaders.

What will my child do on this field trip?

- Hike on trails (these are all generally wide and flat)
- Spend time along the river and creek
- Use scientific tools and do experiments to learn about the ecosystem

Important: You can expect that the weather may be wet and/or cold. The field trip takes place entirely outside - there are no indoor facilities at Clemens Park. Your child may also be entering the creek (up to their ankles). The packing list below will help make sure your child is as comfortable as possible.

Make sure your child wears or brings:

- Warm, thick jacket (such as fleece) - not just a hoodie!
- WATERPROOF jacket with a HOOD (we will provide ponchos to those who need them)
- Waterproof pants or waders if you have them
- Warm winter hat
- Winter gloves or mittens
- Waterproof boots (if you have them) or hiking shoes (we will provide extra waterproof boots to those who need them)
- Warm socks and bring an EXTRA pair of warm socks
- Water bottle

If you have any questions, please contact your child's teacher at:

Thank you!

PROGRAMA DE "SALMON WATCH" INFORMACIÓN PARA PADRES Y LISTA DE EMPAQUE

Fecha de Excursión: _____

Lugar de Excursión: Clemens County Park, Alsea



¡"Salmon Watch" es una excursión divertido al aire libre que esperamos que su hijo recuerde por el resto de su vida! Su hijo pasará el día aprendiendo sobre ríos, peces, ecología y cómo pueden ayudar a los ecosistemas locales. Esta excursión está dirigida por el personal del Distrito de Conservación de Agua y Suelo de Benton y un grupo de voluntarios dedicados.

¿Qué hará mi hijo en esta excursión?

- Caminar por senderos (por lo general, todos son anchos y planos)
- Pase tiempo a lo largo del río y el arroyo
- Usar herramientas científicas y hacer experimentos para aprender sobre el ecosistema

Importante: Que el clima sea húmedo y/o frío. La excursión es completamente al aire libre: no hay instalaciones interiores en Clemens Park. Es posible su hijo también puede estar entrando al arroyo (hasta los tobillos). La siguiente lista de equipaje le ayudará a asegurarse de que su hijo esté lo más cómodo posible.

Asegúrese de que su hijo use o traiga:

- Chaqueta gruesa y abrigada (como un forro polar), ¡no solo una sudadera!
- Chaqueta IMPERMEABLE con CAPUCHA (nosotros tendremos ponchos a quienes los necesiten)
- Pantalones impermeables o waders si los tiene
- Gorro cálido de invierno
- Guantes o manoplas de invierno
- Botas impermeables (si las tiene) o zapatos para caminar (nosotros tendremos botas impermeables adicionales a quienes las necesiten)
- Calcetines calientes y un par EXTRA
- Botella de agua

Si tiene algunas preguntas, comuníquese con el maestro de su hijo al:

Gracias!

SALMON WATCH STUDENT WAIVER

Please sign and return to your student's teacher
by: _____



In consideration for being permitted to perform the below-described activity(ies), the under-signed parent or guardian agrees to hold harmless the Benton Soil and Water Conservation District, its officers, agents, and employees from and against all liability, claims, and demands, on account of injury, loss, or damage to student, including without limitation, claims arising from bodily injury, personal injury, sickness, disease, or death which the student may personally sustain during the course of performing activities with the Salmon Watch program.

Activities to be performed may include, but are not limited to:

- Walking and hiking on trails
- Activities along and within the river or creek
- Use of scientific equipment and chemicals
- Exposure to the elements including wind, rain, and cold temperatures
- Encounters with toxic plants and wildlife

I am/we are the parent(s)/legal guardian(s) of the student and by my/our signature, agree to be bound by and responsible for all of the provisions of this Release and Indemnification Agreement, on behalf of ourselves, the student, and the successors, Representatives, heirs, executors, assigns, and transferees of ourselves and the student. I/we consent to the execution of this Release and Indemnification Agreement and Participation in the above-described activity(ies).

Signed names of parent(s)/legal guardian(s):

Printed name of signer(s):

Date: _____

"SALMON WATCH" FORMULARIO DE RENUNCIA



Firme y devuélvalo al maestro de su hijo antes de esta fecha: _____

Por tener permiso para realizar la(s) actividad(es) descrita(s) a continuación, el padre o tutor que firma abajo acepta eximir de toda responsabilidad al Distrito de Conservación de Suelos y Aguas de Benton, sus funcionarios, agentes y empleados de toda responsabilidad, reclamo y demanda, debido a lesiones, pérdidas o daños al estudiante, incluidos, entre otros, reclamos que surjan de lesiones corporales, lesiones personales, enfermedades, dolencias o muerte que el estudiante pueda sufrir personalmente durante el curso de la realización de actividades con el programa Salmon Watch.

Las actividades a realizar pueden incluir, pero no se limitan a:

- Caminatas por senderos
- Actividades a lo largo y dentro del río o arroyo
- Uso de equipos científicos y productos químicos
- Exposición a los elementos, incluidos el viento, la lluvia y las bajas temperaturas
- Encuentros con la fauna silvestre

Soy/somos el(los) padre(s)/tutor(es) legal(es) del estudiante y con mi/nuestra firma, acepto ser obligado y responsable de todas las disposiciones de este Acuerdo de Liberación e Indemnización. ment, en nombre de nosotros, el estudiante y los sucesores, Representantes, herederos, albaceas, cesionarios y cesionarios de nosotros mismos y del estudiante. Yo/nosotros damos nuestro consentimiento para la ejecución de este Acuerdo de Liberación e Indemnización y Participación en la(s) actividad(es) arriba descrita(s).

Firmas de los padres/tutores legales:

Escriba los nombres aquí:

Fecha: _____

SALMON WATCH ADULT WAIVER

Please sign and return to your student's teacher
by: _____



In consideration for being permitted to perform the below-described activity(ies), the under-signed Adult Chaperone agrees to hold harmless the Benton Soil and Water Conservation District, its officers, agents, and employees from and against all liability, claims, and demands, on account of injury, loss, or damage to myself, including without limitation, claims arising from bodily injury, personal injury, sickness, disease, or death which I may personally sustain during the course of performing activities with the Salmon Watch program.

Activities to be performed may include, but are not limited to:

- Walking and hiking on trails
- Activities along and within the river or creek
- Use of scientific equipment and chemicals
- Exposure to the elements including wind, rain, and cold temperatures
- Encounters with toxic plants and wildlife
- Interactions with and behavior management of students

I am aware of the risks and by my signature, agree to be bound by and responsible for all of the provisions of this Release and Indemnification Agreement, on behalf of myself and my successors, Representatives, heirs, executors, assigns, and transferees. I consent to the execution of this Release and Indemnification Agreement and Participation in the above-described activity(ies).

Signed By: _____

Date: _____

Printed Name: _____