Connecting People to the Columbia

A chapter of the 2025 State of the Columbia River Estuary Report

Lower Columbia Estuary Partnership
Celebrating 30 years

The Lower Columbia Estuary Partnership is a National Estuary Program administered by the U.S. Environmental Protection Agency and supported by the States of Oregon and Washington and the U.S. Congress.

Letter from the Director of Education Programs

Here in the lower Columbia watershed, the river is a major artery to the heart of our communities. Robust opportunities for education, engagement, and connection were provided through Estuary Partnership Community Programs and countless partner programs throughout the study area – including workforce development internships, youth mentorship, culturally-specific gatherings, volunteer opportunities, and public school science field studies.

Through 2020-2025, we sustained and grew annual engagement across all program types and offerings, and the need for access and opportunities continued to grow and outpace highly variable and inconsistent funding. 2020-2021 were eclipsed by COVID pandemic social distance parameters, requiring creative approaches to continue outreach and engagement. 2022-2024 saw banner funding opportunities, providing significant increases in the number of programs, students, and communities served. 2025 signaled a narrowing of community and education funding which led to partner programs closing their doors, creating an even greater need.

Despite these unpredictable variables, thousands of people engaged with the watershed through volunteer stewardship, educational field trips, and recreational swimming and paddling. In Estuary Partnership programs alone:

- Volunteers gave 10,710 hours of service and planted 67,443 native plants at 12 project sites.
- New program types for community place-based education programs for urban and culturally specific groups were endeavored at Urban Wildlife Refuges.
- In 2025, our Education Program reached a milestone of serving over 100,000 students throughout the life of the program.
- The Columbia River Water Trail continued to be one of the most visited pages on our website, acknowledging continued community interest in accessing the water trail.

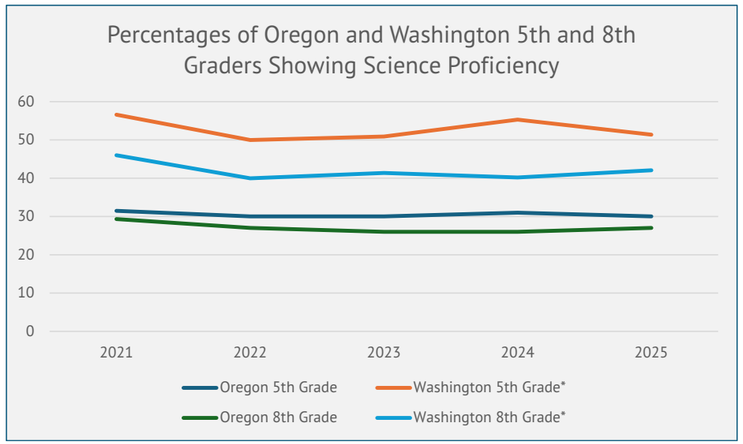
As the lower Columbia and its tributaries continue to sustain our communities, public interest and care for the watershed continues to grow. We are honored to support accessible connections to the river in recent years and those to come.

In partnership,

Valerie Pufahl
Director of Education Programs

The State of Outdoor Science Education in Oregon and Washington

The Comprehensive Conservation and Management Plan (CCMP) identifies Education and Stewardship as key areas of focus and includes actions that are aimed at helping people of all ages to better understand the environment around them and to promote stewardship. At the core of these actions is the need for strong environmental and science education that is connected to water quality, understanding the impacts of recurring extreme weather events, understanding long-term weather and climate impacts like sea level rise and warming water, geology, history, species, and demography. The importance of strong science education is foundational for understanding the threats and opportunities that face the estuary.



Students on both sides of the Columbia show limited proficiency in science. In Oregon science proficiency is available as a measure of student success in grades 5 and 8 annually in the Oregon Statewide Report Card available through the Oregon Department of Education[1]. The State of Washington also releases a Report Card available through the Office of Superintendent of Public Instruction[2], which identifies percentages of students on track for college-level learning without needing remedial classes based on test scores in the 5th and 8th grade. Washington also provides science achievement in 11th grade. Note that in the data below, that 2020-2021 data from Washington represents test scores for 6th and 9th graders rather than 5th and 8th graders.

Based on the data available, it appears that Washington's elementary students are showing higher proficiency in the science portions of standardized testing. And while Washington showed higher proficiency, Washington's students showed lower demonstrated proficiency in 8th grade testing than 5th grade testing; a trend that continued with 11th grade testers showing between 15- and 20-point decreases in presumed college readiness. Oregon students showed slightly higher proficiency in 5th grade testing than in 8th grade testing, but the margin was narrower than in Washington.

1 https://www.oregon.gov/ode/schools-and-districts/reportcards/Pages/Statewide-Annual-Report-Card.aspx

2 https://reportcard.ospi.k12.wa.us/ReportCard/ViewSchoolOrDistrict/103300

Percentage of Oregon and Washington 5th and 8th Grade Students Meeting Science Proficiency				
School Year	Oregon 5th Grade	Washington 5th Grade*	Oregon 8th Grade	Washington 8th Grade*
2021	31.5	56.6	29.3	46.0
2022	30.0	50.0	27.0	40.0
2023	30.0	50.9	26.0	41.4
2024	31.0	55.3	26.0	40.2
2025	30.0	51.4	27.0	42.1

*2021- In Washington 2021 data reflects proficiency from 6th and 9th graders rather than 5th and 8th grade.

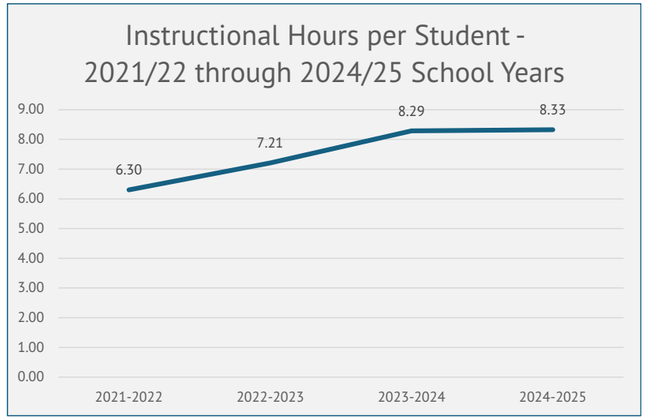
Oregon scores are based on all students and observed proficiency. Washington scores are a measure of students who are on track for college learning without remedial classes.

Time Spent in Science Learning

Nationally, based on the 2018 National Survey of Science and Mathematics Education (NSSME) Report on the Status of Elementary Science, students in intermediate grades, generally 5th and 6th grade, receive on average 23 minutes per day or just less than 2 hours per week receiving science related learning. Additionally, in the same 2018 Report teachers across the country indicated they teach a science class three or fewer days per week (41%) or some weeks but not every week (42%).[3]

It is difficult to find state-level data to describe the amount of classroom science instruction in Oregon and Washington or the amount of science learning that takes place on field trips, service-learning projects, or in outdoor school activities. Organizations like the Estuary Partnership that deliver expanded opportunities for science education provide important supplementary learning for students.

During the 2020-2021 school year there were no additional classroom opportunities offered due to the pandemic. In the subsequent years, the Estuary Partnership was able to provide a total of 83,346 hours of science instruction for 11,780 students. Based on the national data, this additional average of 7.6 hours of instruction provided to students increased their learning in a single week by over 400%.



3 Plumley, C. L. (2019). *2018 NSSME+: Status of elementary school science.* Chapel Hill, NC: Horizon Research, Inc.

Students Served and Instructional Hours 2020-2025

The early part of the reporting period, particularly the 2020-2021 and 2021-2022 school years, were greatly impacted by the restrictions of the COVID pandemic including school closures and limits on indoor interaction with students. During the pandemic, educators shifted to providing take home kits, online lessons, and other opportunities for students and families to continue learning without an environmental educator present.

In subsequent school years, educators reached between 2,400 to more than 3,200 students per year, totaling more than 11,000 students and 89,000 instructional hours from 2021 through 2025.

School Year	Total Classes	Total Schools	Total Students	Total Teachers	Total Adult Volunteers	Hours of Instruction
2021-2022	111	35	2,639	111	503	16,635
2022-2023	118	30	2,965	118	559	21,381
2023-2024	117	39	2,950	117	599	24,456
2024-2025	130	43	3,226	129	665	26,874
Totals:	***476***	***147***	***11,780***	***475***	***2,326***	***89,346***

Nearly all students served—98.2%—received a field trip. Big Canoe field trips are limited by availability of launch sites, school district restrictions, and funder priorities, and only 27.8% of students served paddled on-water in our Big Canoes. Service learning activities (e.g. planting trees, removing non-native species) took place on the majority of field trips, and these students planted more than 31,000 native trees and shrubs.

School year	All Field Trips	Total Students	Canoe Field Trips	Big Canoe Students	Adults	Total Trees & Shrubs Planted
2021-2022	79	2,429	10	351	605	8,759
2022-2023	77	2,965	18	782	696	10,138
2023-2024	77	2,950	30	1,208	740	6,486
2024-2025	104	3,226	22	939	817	5,978
Totals	***337***	***11,570***	***80***	***3,280***	***2,858***	***31,361***

The Estuary Partnership's lessons and field programs greatly enhanced our science curriculum by providing hands-on experiences that connected directly to the standards we covered this year. Through exploring local ecosystems, students deepened their understanding of habitats, measurements, data collection, and environmental science concepts, complementing our work in math and reading.

It's always amazing to see which kids blossom when we do more hands-on activities. Without this opportunity, certain students would never be given the chance to do what they are really passionate about.

5th grade teacher, Lake Shore Elementary, Vancouver

What does Environmental Education Look Like for Students in the Lower Columbia Region?

Students in an Estuary Partnership education program generally receive hour-long classroom lessons focused on environmental science themes such as watershed concepts, water quality indicators and impacts, stormwater challenges and solutions, and native plants and habitats. Students also receive a 3-4 hour field trip at a nearby natural area. Field trips activities build upon their classroom learning, including:

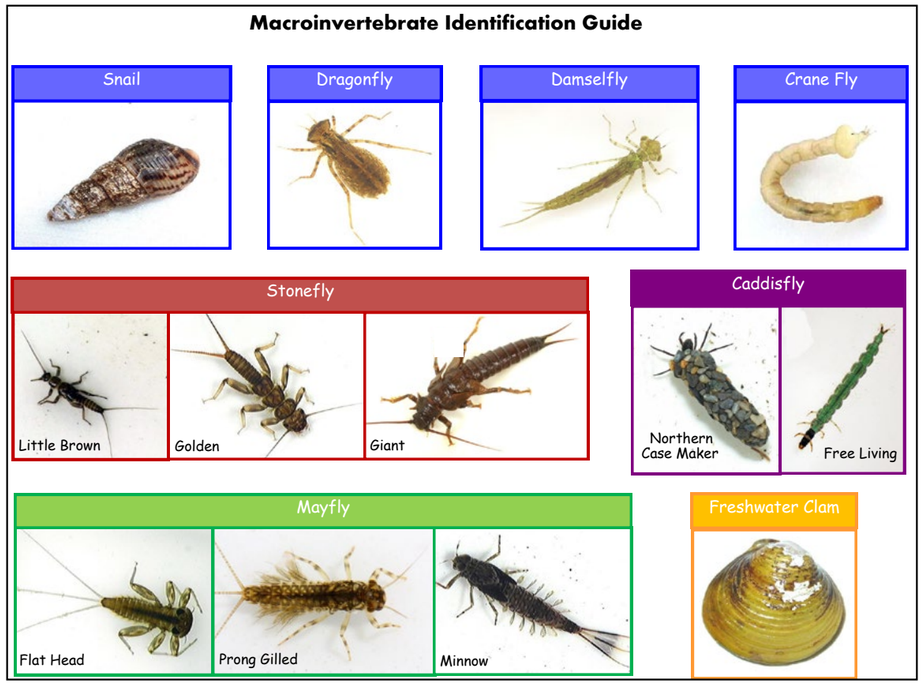
- Stewardship and restoration projects involving planting native plants, mulching and caring for recent plantings, or invasive species removal
- Exploring habitats and wildlife observations
- Site-specific field activities, such as building watershed models in the sand along the lakeshore of Vancouver Lake or experiencing the Plank House at Ridgefield National Wildlife Refuge guided by Chinook Indian Nation educators and leaders to deepen cultural and traditional ecological knowledge
- Exploring local waterways by paddling the Estuary Partnership Big Canoes

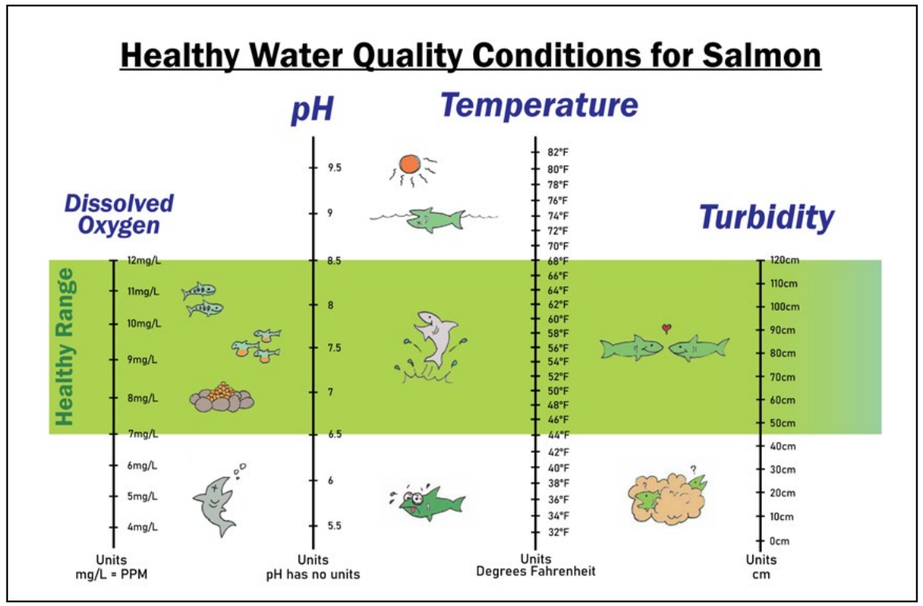
Depending on the specific project and funder, students in 2021-2025 received 1-6 hour-long lessons and 1-3 field trips.

One major contributor to the increase in average student instructional hours in 2022-2025 was the introduction of a new grant program in Washington State called the Outdoor Learning Grant which focused on instructional time spent outdoors for public school students across the state. This program was short-lived and only hosted two grant cycles (2022-23 and 2023-2025), where the Estuary Partnership secured awards for each cycle with a project that averaged 18 hours of annual instructional time for over 400 students each school year between 2022-2025. The loss of this funding in the 2025-2027 Washington State budget, along with others, means increased competition for remaining foundation, regional, state, and local funding programs, and ultimately fewer learning opportunities for students.

Sample Estuary Partnership Educational Materials

Water quality is a common topic of Estuary Partnership lessons. Following are materials developed by Educators for lessons *Macroinvertebrates as Water Quality Indicators* and *Water Quality Lab*. Students learn about the topics in the classroom, and sample macroinvertabrates and water quality in the field.





River Macroinvertebrate Sample

Lower Columbia Estuary Partnership

Your Name/s: _____

River Name: _____

✓ Check all the types you find

Sensitive	Somewhat Sensitive	Tolerant
caddisfly ☐	freshwater clam ☐	aquatic worm ☐
mayfly ☐	crane fly ☐	black fly ☐
riffle beetle ☐	dragonfly ☐	water boatman ☐
stonefly ☐	scud ☐	snail ☐
	aquatic mite ☐	water strider ☐
	damselfly ☐	backswimmer ☐
	alderfly ☐	
Total types found	**Total types found**	**Total types found**
_____X 3 = _____ *(multiply by 3)*	_____X 2 = _____ *(multiply by 2)*	_____X 1 = _____ *(multiply by 1)*

_____ Sensitive Total
+
_____ Somewhat Sensitive Total
+
_____ Tolerant Total
=
_____ **River Health Score**

River Health Score:

23 or more = Excellent
17 - 22 = Good
11 - 16 = Fair
10 or less = Poor

Lower Columbia Estuary Partnership

Water Quality Lab

Name/s: _____

Our river name is _____

STEP 1: Observe
Read the description of your river. Check all boxes that describe the river.
This river is helped by ...
☐ trees along the river that give shade.
☐ plant roots that keep soil from washing into the water.
☐ plant roots that filter pollution.
☐ people picking up litter.
☐ people planting trees.

This river is harmed by...
☐ not having trees for shade.
☐ not having plant roots to hold soil in place.
☐ people leaving litter.
☐ oil and extra chemicals washing into the river.

STEP 2: Test
Test the water sample using the test kits and instructions provided.

STEP 3: Record Your Data

Test	Our Data	Healthy for River Animals	Healthy? Yes or No
Temperature		41-68°F	
Turbidity		Greater than 45 cm	
pH		6-8	
Dissolved Oxygen		8-12 ppm	

Project Spotlight: Experience Vancouver Lake

The Experience Vancouver Lake project is supported through a consortium of the Port of Vancouver, City of Vancouver, and Clark County Public Works to provide education and community learning and connection to Vancouver Lake Regional Park. This project began in 2015 and currently continues through June 2026.

Experience Vancouver Lake engages public school students from nearby school communities in 2-3 classroom environmental science lessons and a 3-4 hour field trip to Vancouver Lake Regional Park where students explore the shoreline and forest environments around the lake through bird, insect, and plant observations and identification. Students frequently explore our watershed model on site before recreating a model of our local watershed in the sand to explore how water moves through our landscapes and the challenges Vancouver Lake experiences. Occasionally, students have dissected trout on site to better understand water quality impacts and fish adaptations. All activities build on skills from their class lessons. For many students this is their first time visiting Vancouver Lake despite living within a 10-30 minute drive from the park.

2021-2025 Vancouver Lake Totals

1,327 students

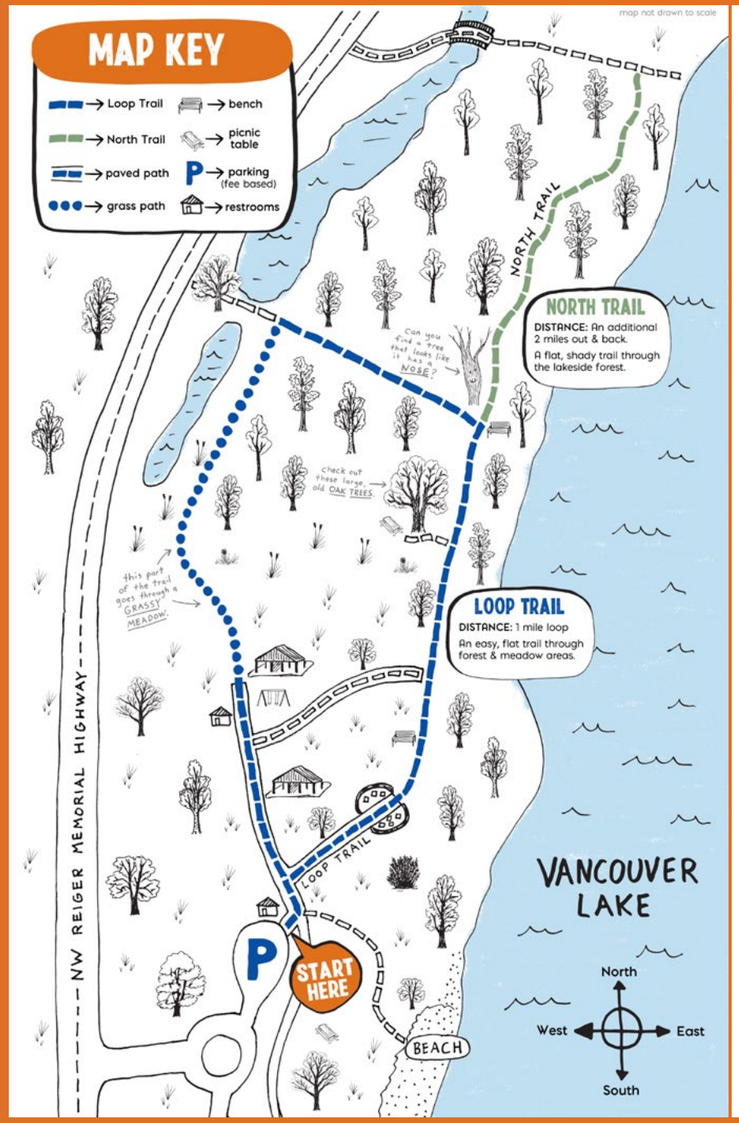
181 Teachers & Chaperones

731 Big Canoe paddlers

The Experience Vancouver Lake project also supports 8-12 annual Big Canoe paddle programs for community groups, families, and the public. As with all our Big Canoe programs, these programs provide beginner friendly paddling and waterway access for children, youth, and adults who have greater barriers to access on-water recreation. Groups served at Vancouver Lake include:

- Clark College Environmental Science students
- Public programs for families and individuals through City of Vancouver Water Resources Education Center
- Youth summer camps through City Parks and Recreation
- Immigrant and refugee student support services
- Youth mentorship programs for Clark County
- Youth climate leader cohorts

Paddles on Vancouver Lake create the opportunity to witness extensive bird and animal life including juvenile bald eagles hunting spawning fish, great blue herons and various water birds, as well as invasive aquatic plants, which invite discussion about Vancouver Lake's water quality challenges and opportunities. Vancouver Lake is also a waterbody that routinely is challenged with the presence of harmful algal blooms (HABs), so we share with participants about HAB causes and effects, as well as how to access updated monitoring data. By supporting nearby communities building a relationship with the lake, we aim to increase awareness and accurate public knowledge of water quality impacts in their watershed.



ABOUT THIS MAP

This map was created as part of the education programs of the Lower Columbia Estuary Partnership along with Clark County, the City of Vancouver, and the Port of Vancouver.

The trail map & activities included provide opportunities for students and families to learn more about Vancouver Lake & make a more personal connection to this place.

Learn more about the Estuary Partnership & its programs by visiting:

www.estuarypartnership.org

GIVING BACK

What are some ways you can give back to this place & keep it special?

Designed and illustrated by Mike Murawski & Bryna Campbell with Super Nature Adventures.
SUPER NATURE ADVENTURES

NATURE SOUNDS

1. Find a spot to sit, like on a bench, a log, or in the grass.
2. Close your eyes. Take some time & listen to the sounds around you.
3. How does it feel to stop & listen? Did you experience this place in a new or different way?

PLANT DETECTIVE

Can you find these amazing trees & plants on your nature adventure?

HINT: Look carefully at their leaves.

Oregon White Oak

Look for curvy leaves, & acorns that appear in late summer or fall. Find these trees near grassy open meadows.

Black Cottonwood

Look for heart-shaped leaves & the fluffy cotton-like puffs that appear in early summer.

Licorice Fern

Look for these small ferns growing on the branches of large trees in the shady forest.

LOOKING FOR CLUES

There's evidence of animal activity all around us. What can you find...

in the **TREES**?

a bird? a squirrel? a nest?

near the **WATER**?

beaver activity? bird tracks?

on the **PATH**?

anmal tracks? coyote scat?

ZOOM IN

Find something interesting? Look closely & draw what you see.

Lower Columbia Estuary Partnership

EXPERIENCE VANCOUVER LAKE

Great Blue Heron

CITY OF Vancouver WASHINGTON
CLARK COUNTY, WASHINGTON
Port of Vancouver USA

Interactive Vancouver Lake map produced in partnership with Art Nature Place. View it online in English and Spanish.

Class lessons and field lessons provide an expertise and resources that I, as a classroom teacher, would not be able to provide. Lessons are hands on and very engaging, students look forward to this opportunity every year. I have a couple of favorite stories:

When we were on the trail approaching the lake, and Vancouver Lake came into view, one of my students stopped in his tracks and said ***"Oh, it is so beautiful. Can anyone come here?"***

Another is my observational experience with one of my more "active" students in class. He walked by my side the entire trip, by choice, and was curious about everything we saw. He hushed the other children so we could hear the birds and just found every little thing to point out and ask about. I've never seen him so engaged!

Anne Bowling, 4th grade teacher, Hough Elementary, Vancouver

Spotlight on Educational Partners

The lower Columbia region has several environmental and outdoor science education programs that partner with schools for youth education. There are also several programs focused on youth advancement in STEM education through mentorship and afterschool programming, specifically for youth of color.

We live in a region with many program providers—the following list is not exhaustive.

COLUMBIA SPRINGS
www.columbiasprings.org/fieldtrips

CITY OF VANCOUVER WATER RESOURCES EDUCATION CENTER
www.cityofvancouver.us/water-resources-education-center

PACIFIC EDUCATION INSTITUTE
www.pacificeducationinstitute.org/work/programs/fieldstem

ECOLOGY IN CLASSROOMS & OUTDOORS
www.ecologyoutdoors.org

OREGON MUSEUM OF SCIENCE AND INDUSTRY
www.omsi.edu/community-programs/outdoor-school

COLUMBIA RIVER MARITIME MUSEUM
www.crmm.org/schools.html

The Estuary Partnership's classroom lessons provided valuable background knowledge and vocabulary exposure for students prior to heading out into the field. The lesson was engaging and interesting—the students really enjoyed the hands on aspect and seeing real life artifacts.

Getting my students out into nature is such an amazing gift. Many of these kids live in apartments and do not have a lot of opportunity to explore the world around them. Also, having access to tools such as binoculars allows them to draw from this experience later, building upon their previous knowledge in authentic ways.

For days afterwards I heard about how much the students all enjoyed the field trip. Parents, too, mentioned how great it was. The Estuary educators are professional, prepared, and knowledgeable.

Michelle Stoller, 5th grade teacher, Minnehaha Elementary, Vancouver

On-Water Programs

Our Big Canoe program continued to thrive and grow its reach as we prioritized expanded regional programs for lower river communities—Columbia and Clatsop Counties in Oregon and Cowlitz County in Washington— and programs in new locations on the Tualatin River serving Washington County communities.

We have continued to serve long-standing partner communities, such as:

- Mentorship and workforce development programs for people of color: Green Workforce Academy, Blueprint Foundation, ELSO/Tappin' Roots, and Lents Youth Initiative, among others
- Youth programs for specific low income housing communities
- STEM focused summer programming and camp programs for immigrant and refugee youth
- Culturally specific communities such as Portland All Nations Canoe Family and Title IV Indian Education students and teachers

New program types launched during this timeframe include:

- Water quality monitoring focused paddles
- Portland Harbor Superfund Site informational paddles
- Community health worker paddles
- Collaborative program with eNRG Kayaking for an end-of-season paddle opportunity at Willamette Falls for participants to return with family members for a second paddle experience

Year (July - June)	Canoe Trips	Paddle Participants
2020-2021	23	344
2021-2022	36	571
2022-2023	44	698
2023-2024	45	806
2024-2025	52	973
Totals	*200*	*3392*

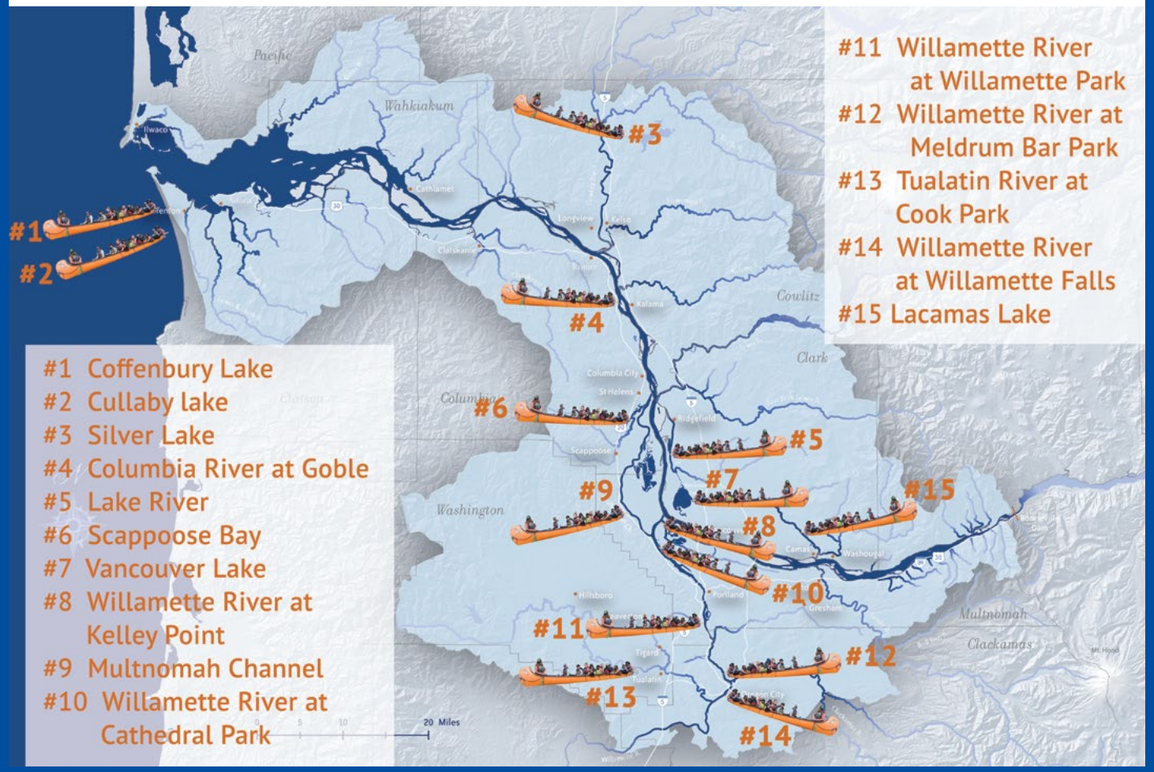
As with our Education programs, our Big Canoe programs between 2020-2025 saw initial dips due to COVID pandemic impacts and then huge increases due to favorable funding opportunities. The summer of 2024 saw our biggest season in program history, serving over 900 participants and leading 50+ programs. We also hired a seasonal educator as a paddle program specialist from spring – late fall 2024 to support this significant

program season. This position also worked to refine systems that will benefit programs for years to come.

As with other community programs, the funding uncertainty and shifts of 2025 also impacted the Big Canoe program with many funders having less funds to allocate and record number of applicants. We anticipate strained funding opportunities to continue as a challenge in upcoming seasons.

Providing a comfortable and safe experience on the water are critical to our on-water Big Canoe programs. View the orientation video provided to all students and participants prior to their Big Canoe paddle.

2020-2025 Big Canoe paddle locations



Other organizations in our study area provide on-water experiences for students and community members. Some opportunities are recreational, while others incorporate trash clean ups and aquatic invasive species removal. These include:

COLUMBIA SLOUGH WATERSHED COUNCIL
www.columbiaslough.org

TUALATIN RIVERKEEPERS
www.tualatinriverkeepers.org

WILLAMETTE RIVERKEEPER
www.willametteriverkeeper.org

Partner Spotlight: Human Access Project

Human Access Project (HAP) is a grassroots advocacy group catalyzing cultural change around how people feel about and interact with the Willamette River in Portland. HAP was conceived in 2010 by Executive Director/Ringleader Willie Levenson, who, in his own words, wanted to swim in the Willamette River and got a little carried away. Since then, HAP has worked to shift public perception of the river—from an unsafe water body to a beloved public space and natural treasure to be enjoyed and protected. Through advocacy, riverside development, and creative activations and programming, HAP helps people feel welcome, safe, and excited to "get into their river." Thousands of people have swum in the Willamette River in recent years thanks to the advocacy and hands-on work of HAP.

MISSION Transform Portland's relationship with the Willamette River.

VISION A city in love with its river.

PATH OF OBJECTIVES

1. *Build it* – create a human habitat and more accessibility points to the Willamette River in Portland.

2. *Use it* – inspire people to connect with the Willamette River and embrace it.

3. *Love it* – facilitate conservation, education, and stewardship of the Willamette River and Watershed.

4. *Sustain it* - as Jacques Cousteau said so well, "People protect what they love."

AUDIENCE People for whom the Willamette River is their closest natural body of water and who live within five miles of the Willamette River.

Learn more about the Human Access Project and their work on the Willamette River at humanaccessproject.com.

PORTLAND HARBOR

A CHANGING PLACE

Since time immemorial, Native peoples have been stewards of the Willamette River, which has served as an economic center for the people of this area for thousands of years.

At the turn of the 20th century, industrialization spread along this part of the Willamette River now called the Portland Harbor.

Many of these industries released harmful contaminants into the river and land surrounding it. These contaminants can linger for decades and potentially cause harm to people, fish, and wildlife. In 2000, the EPA designated Portland Harbor as a Superfund site because of high contamination levels.

Portland Harbor is in the process of cleanup and habitat restoration so that future generations can enjoy the benefits of a healthy ecosystem.

LEARN MORE

Scan the QR code code below to find resources with the most up-to-date information on these topics:

- *Water Quality*
- *River Recreation and Access*
- *Fish Health and Consumption*
- *Superfund Clean Up and Public Engagement*

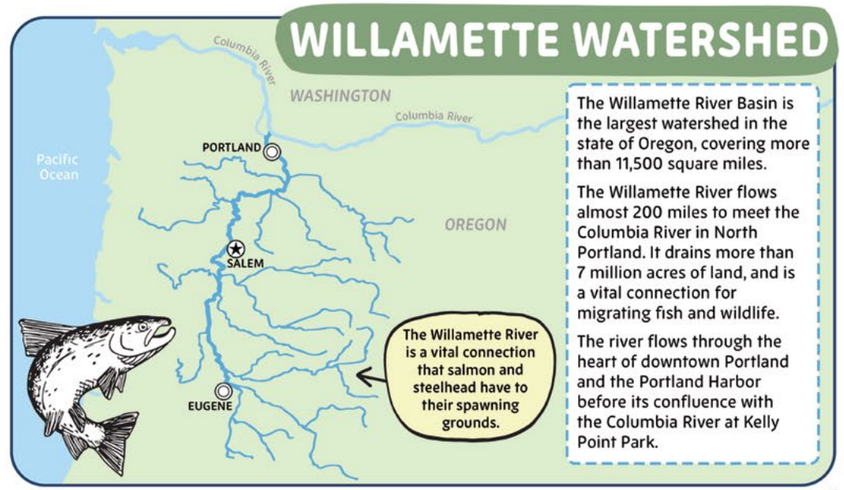
This map and educational resource was made possible through funding support from the City of Portland Bureau of Environmental Services and the United States Environmental Protection Agency Bipartisan Infrastructure Law.

ENVIRONMENTAL SERVICES CITY OF PORTLAND

EPA

design and illustration by ART | NATURE | PLACE

WILLAMETTE WATERSHED



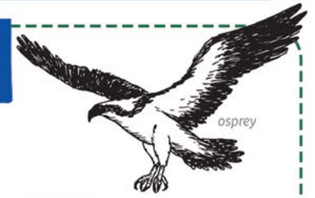
The Willamette River Basin is the largest watershed in the state of Oregon, covering more than 11,500 square miles.

The Willamette River flows almost 200 miles to meet the Columbia River in North Portland. It drains more than 7 million acres of land, and is a vital connection for migrating fish and wildlife.

The river flows through the heart of downtown Portland and the Portland Harbor before its confluence with the Columbia River at Kelly Point Park.

RESTORATION PROJECTS

Find these 5 locations on the map



Alder Creek Restoration Project

Former Use: Lumber mill complex.

Restoration Goals: Creating side channels and providing habitat support for salmonids, lamprey, mink, and birds.

Harborton Restoration Project

Former Use: Substation and pole yard owned by PGE for the past 80 years.

Restoration Goals: Preserving wetlands that serve as breeding habitats for northern red-legged frogs.

Linnton Mill Restoration Project

Former Use: Site of a century-old lumber mill.

Restoration Goals: Restoring access to Linnton Creek for salmon and other fish as well as creating habitat for juvenile salmonids, lamprey, bald eagles, and mink.

University of Portland

Former Use: Hazardous waste storage facility site during the 1980s.

Restoration Goals: University of Portland purchased the site in 2008 and completed a soil cleanup in 2014. The site is now used by the university for recreational activities.

Willamette Cove

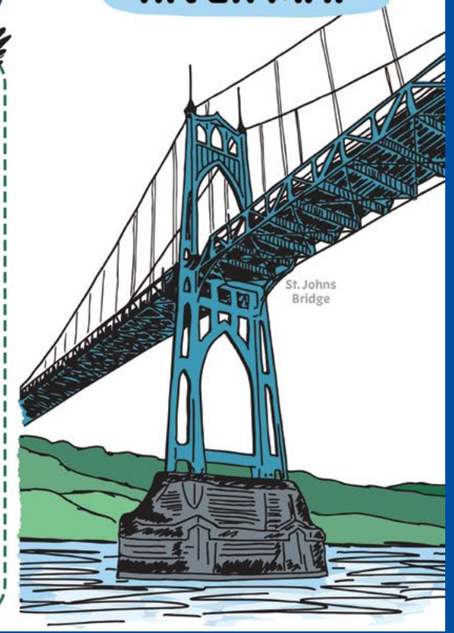
Former Use: Site of heavy industrial activity including a lumber mill, barrel construction, and ship repair.

Restoration Goals: Soil cleanup in process with plans to make the Metro-owned site a nature park to support plants and wildlife, and provide people with a connection to nature along the river.

Lower Columbia Estuary Partnership

PORTLAND HARBOR

WILLAMETTE RIVER MAP



Portland Harbor map produced in partnership with Art Nature Place See more online.

One of our participants was a 63-year-old, a lifetime Portland resident, and we saw a pair of eagles and she was so touched to witness them. ***She said she'd never seen eagles her whole life before that experience.***

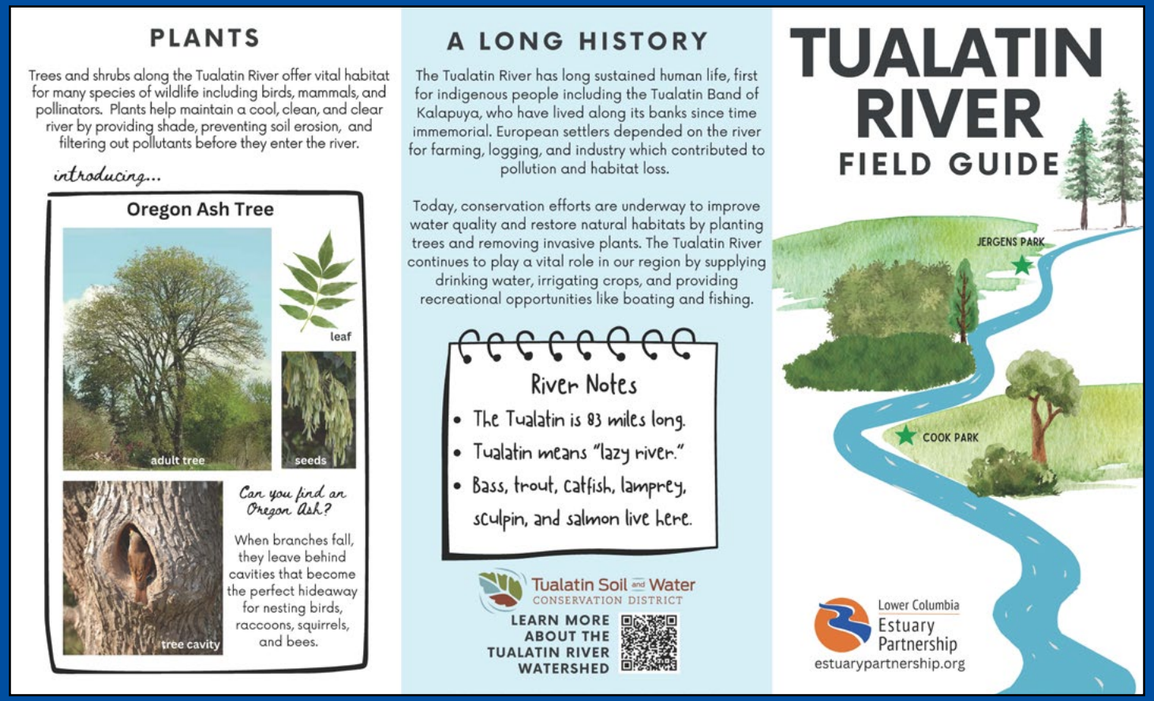
We routinely have folks who comment that "canoe day" is their favorite experience in Green Workforce Academy. It means a lot to folks!

Green Workforce Academy

For many campers, this was their first time in a boat on the water. This experience was incredibly special for them and something they looked forward to all week. By paddling with their families, campers were able to share the connections they had made with nature throughout the week.

One camper and his aunt were able to participate in the paddle for their second year. The camper and family expressed how this was her favorite part of their Family Day experience.

Bird Alliance of Oregon



Tualatin River field guide funded by the Tualatin Soil and Water Conservation District

Volunteer Stewardship

Community stewardship programs from 2020-2025 focused on volunteer plantings of native trees, shrubs, and other plants, including mulching and other tending activitites. During events, volunteers learn more about their watershed from educators and through site-specific water quality handouts.

Additional programs involved culturally-specific programming for Native leaders and students and nature immersion programs for people of color.

2020-2025 Stewardship Totals

3,570
Volunteers

10,710
Volunteer Hours

67,443
Trees and Shrubs Planted!

The first time I planted a tree was when I was in Elementary School, and after that I never had the time to plant a tree. This event gave me the experience I had once when I was a child, but now with the awareness of why trees are important for us. It wasn't too hard to plant them because the soil was still wet from the rain. If I have the time in the future, I would love to participate in other planting trees events.

Cynthia Elizalde, volunteer

Partner Spotlight: Lower Columbia Nature Network

The Lower Columbia Nature Network (LCNN) connects our community to nature by fostering partnerships with program providers across southwest Washington. LCNN works in partnership with the U.S. Fish and Wildlife Service, Ridgefield National Wildlife Refuge Complex, and hosts monthly partner meetings that bring environmental education, volunteer stewardship groups, and local government programs together to share resources and opportunities.

MISSION To elevate partners in the network and provide key information to the public to connect with nature and public lands.

VISION To make nature welcoming to all

GOAL To open opportunities and provide resources for all to enjoy the great outdoors

LCNN LOWER COLUMBIA NATURE NETWORK

Their website showcases upcoming events across southwest Washington where community members can volunteer and learn in local natural areas, as well as ways to access recreation and outdoor activities at low-to-no cost.

LCNN partners, resources, and more information can be found at lowercolumbianaturenetwork.org.

Convenings

Introduction from the Columbia River Estuary Study Taskforce (CREST)

Since 1999, the Columbia River Estuary Conference (CREC) has promoted the shared stewardship of the Columbia River Estuary. The conference is intentionally shaped by practitioner needs, balancing applied science, management insights, and community perspectives, creating space for learning, dialogue, and relationship-building.

"CREC is where the science meets practice and ideas begin to move forward."

– Narayan Elasmar, CREST Associate Director of Monitoring

CREC offers a unique opportunity to connect across disciplines and jurisdictions. The conference serves as both a learning exchange and professional touchstone, helping participants stay informed about emerging research, policy developments, and on-the-ground projects throughout the region. It also provides a critical networking forum that supports coordination and collaboration across organizations and geographies.

"Being in Astoria reminds us why this work matters, it's real and right outside the door."

– Jason Smith, CREST Director of Habitat Restoration and Monitoring

CREC's typical location in Astoria reinforces its the conference's strong place-based character. Gathering at the mouth of the Columbia River grounds discussions in the physical, cultural, ecological, and economic realities of the estuary. Field trips, local speakers, and regional case studies ensure conversations remain rooted in real-world conditions.

"CREC doesn't just share information, it builds and sustains relationships and partnerships that make progress possible."

– Denise Lofman, CREST Executive Director

CREC has helped catalyze partnerships, align restoration and monitoring efforts, and inform regional conversations about resilience, habitat recovery, and community engagement. While outcomes often emerge gradually, connections made at CREC have contributed to collaborative projects, shared datasets, and sustained professional networks that continue to influence work in the estuary.

Narayan Elasmar; Brian Cropper, Senior Wetland Ecologist; and Kyle Purdy, Habitat Restoration Biologist with CREST

Columbia River Estuary Conference

The Lower Columbia Estuary Partnership has cohosted the Columbia River Estuary Conference (CREC) since 1999. CREC brings together restoration practitioners, scientists, researchers, and others interested in the ecosystems and restoration of the lower Columbia River, its estuary, plume, and nearshore ocean. CREC allows for critical knowledge exchange among the many organizations, agencies, Tribes, and people involved in restoring and caring for the Columbia River.

Typically held every two years, the conference was held twice during the reporting period, in 2023 after a five-year, COVID-related gap, and in 2025.

185 people attended CREC 2023, a three-day conference with 46 presentations covering topics from restoration techniques, to blue carbon research, to invasive European green crabs.

CREC 2025 was held as a single-day conference, due to federal travel and spending restrictions, and brought together 152 people to learn from 14 presentations, including a session on improving communication and presentation skills for scientists.

View presentations and proceedings from past Columbia River Estuary Conferences.

Columbia River Estuary Conference Steering Committee members

Amy Borde, Columbia Land Trust

Carla Cole, Lewis and Clark National Historical Park, National Park Service

Catherine Corbett, Lower Columbia Estuary Partnership

Chanda Littles, U.S. Army Corps of Engineers

Charles Seaton, Columbia River Inter-Tribal Fish Commission

Curtis Roegner, NOAA, National Marine Fisheries Service

Elaine Harvey, CRITFC and Yakama Indian Nation

Jason Karnezis, Bonneville Power Administration

Jason Smith, Columbia River Estuary Study Taskforce

Joe Needoba, Oregon Health & Science University

Laura Brown, Washington Department of Fish and Wildlife

Mark Bierman, U.S. Army Corps of Engineers

Sean Payne, U.S. Geological Survey

Tawnya Peterson, Oregon Health & Science University

Science to Policy Summits

The Science to Policy Summit is another opportunity to connect people to the challenges and opportunities facing the lower Columbia River. The Summit brings together community leaders and policymakers with scientists, natural resource professionals, and the public to focus on a single issue facing the region. Past topics have included toxics, the Columbia River Treaty, and single-use plastics.

One Science to Policy Summit was held in the reporting period, in 2024, after a five-year, COVID-related gap. The topic of the summit was Using Carbon Programs to Protect and Restore Ecosystems, and discussed the potential for and barriers to using carbon reduction-related fees to finance conservation and restoration programs. The Summit brought together nearly 100 people by the banks of Lacamas Lake.

Find out more about the 2024 Science to Policy Summit.

Science to Policy Summit attendees paddle one of the Estuary Partnership's Big Canoes on Lacamas Lake during the lunch brteak.

Challenges and Opportunities

The lower Columbia River region enjoys a strong affinity for environmental conservation and outdoor recreation. But we know that not all communities have equal access to nature, and students' lack of science readiness continues to be concerning. The Lower Columbia Estuary Partnership, along with other organizations, is helping to meet these needs by fostering long-term partnerships with teachers, schools, culturally specific communities, and others who have historically lacked access to the outdoors. Ensuring that the people, communities, and practitioners in the region continue to have access to the data and science needed to understand, interpret, implement, and maintain the actions necessary for a healthy Columbia remains an ongoing commitment.

Opportunities

- Continue to strengthen and grow partnerships that support the most students in our region to receive high quality environmental science education opportunities.
- Expand programming for middle and high school students, update and promote teacher-led curriculum and programming, support teacher education, and coordinate with district-level leaders.
- Grow volunteer and community education programs to promote long-term engagement, workforce development, or leadership opportunities.
- Continue to routinely revise and finetune curriculum to meet NGSS standards, student learning needs, and social-emotional leaning targets.
- Deepen Big Canoe and land-based partnerships with Indigenous leaders and communities to support cultural and traditional ecological practices and strengthens our own understanding of Traditional Ecological Knowledge.
- Create opportunities and strengthen systems for maintaining and sharing publicly available science data and information.

Challenges

- The ongoing loss of regional environmental education partners and the dramatic funding losses impacting programs offered to local schools and communities. In 2025 alone, two local partners—the Watershed Alliance of Southwest Washington and Urban Nature Partners PDX—closed their doors due to funding loss and instability.
- Loss of state and federal funding opportunities and increased competition for remaining foundation, regional, state, and local education focused funding programs.
- Decreasing or eliminated Outdoor School programming for public school students in both states.
- Federal and State government travel restrictions complicate knowledge sharing and tech transfer.
- Decreasing availability of data, maps, and scientific information impacts our ability to understand, plan for, and support resilient communities.