

COOS WATERSHED ASSOCIATION ANNUAL REPORT 2024

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Our Mission

The mission of the Coos Watershed Association is to support environmental integrity and economic stability within the Coos watershed by increasing community capacity to develop, test, promote, and implement management practices in the interest of watershed health.

Statement of Shared Values:

It is possible to achieve environmental integrity, economic stability, and human well-being within the Coos watershed.

Natural products and processes of the watershed are indicators of watershed health and are important to the economy and vitality of the community.

Human activities have a legitimate place in the watershed.

Our actions can affect the stability of the watershed and related economy.

Deliberate planning and action for watershed health are important and effectively achieved by the people who live and work within the watershed.

A watershed scale-perspective improves our ability to sustain the health of the watershed and related economic activities.

The coordination of our individual effects can achieve a synergistic, beneficial effect on the watershed.

Maintaining harmonious relationships with stakeholders, partners, landowners, clients, suppliers, employees, and each other contributes to the organization's effectiveness in improving the health of the watershed.

Fostering and appreciating a diversity of opinion, background, and approach while supporting the mission of CoosWA will ultimately strengthen the Board and further our efforts to advance the mission and sustain our organization.

Cover photo: Palouse tide gate (photo credit West Coast Contractors/Jeremy Muffett)

Background photo: Lillian Slough restoration

CoosWA | Annual Report 2024

A Note from our Director

What do CoosWA and candles have in common? Celebration! 2024 marked CoosWA's 30th year working with the community to improve watershed health, and what a year it was! Throughout this report, you will see some of the highlights of our work together this year, but I wanted to take a moment share a bit about what we have accomplished together over the last 30 years:

- Brought in **\$31 million grant dollars** to the local community
- Nearly 200 fish passage barriers removed or improved
- Over 300 riparian planning projects implemented
- Just shy of 150 habitat complexity improvement projects

None - and I mean *none* - of that work would have happened without all the private landowners and public land managers embracing projects on their lands, assistance of technical partners, and the support of our funders and community. Thank you to the steady leadership from the **92 board members and over 230 staff** who have made all of this work happen over the last 30 years!

Speaking of support, you all showed up in a *big* way at our 30th year Birthday Bash Fundraiser and **helped us** raise \$25,000 for key program needs! We could not be more grateful. Thank you!

This is certainly a lot to celebrate, but we are not stopping there. We are energized by thinking about all we can accomplish together over the next 30 years. Strategically, we are focused on a resilient ecosystem and a resilient organization, both of which are staples for our overall community and economic health. We will be releasing a new 5-year strategic plan in 2025, so stayed tuned on the specifics of how we plan to move these goals forward.

With gratitude,

Haley Lutz

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2024 Staff Members

- 1. Haley Lutz, Executive Director
- 2. Sheena Wheeler, Finance Manager
- 3. Mindy Vetter, Office & Finance Manager
- 4. Chris Bauman, Office & Finance Manager
- 5. Diana Wright, Administrative Assistant
- 6. Alexa Carleton, Outreach Program Manager
- 7. Kara Klietz, Community Engagement Specialist
- 8. Meagan Abele, Monitoring Program Manager
- 9. Freelin Reasor, Hydrological Specialist
- 10. Jesse Jones, Monitoring Specialist
- 11. Kevin Whittaker, Fisheries Research Assistant
- 12. Allison Tarbox, Restoration Project Manager
- 13. Dan Draper, Restoration Project Manager
- 14. Ed Cope, Plants Program & Restoration Project Manager
- 15. Jack Scothern, Restoration Crew Lead
- 16. Eric Perry, Noxious Weeds Specialist
- 17. Anders Hansen, Noxious Weeds Specialist
- 18. AJ Kliewer, Restoration Technician

Thank you to our 2024 seasonal crew members:

Sierra Bell, Danni Danielson, Lee Haning, Urijah Henderson, Taylor Jarding, Makenna Johnson, Oliver Keating, Alicia Matthew, Malia Mosley, Lex Orr, Maura Speck, Austin Vetter, McKinley Warncke, Aspen Werelus

Thank you to our 2024 interns:

Daphne Scriven, Alicia Matthew, Aspen Werelus

2024 Board Members

- 1. Bradford McKeown, President (Member-at-large)
- 2. Joe Metzler, Vice President (Cape Arago Audubon Society)
- 3. Don Yost, Treasurer (Member-at-large)
- 4. Amy Burgess, Secretary (Southwestern Oregon Community College)
- 5. Mike Dunning (Oregon International Port of Coos Bay)
- 6. Marty Giles (Recreation & Tourism)
- 7. Lucas Green (Weyerhaeuser Company)
- 8. Rishia Latta (City of Coos Bay)
- 9. Joan Mahaffy (Agriculture)
- 10. Jeff Messerle, (Agriculture)
- 11. Kristopher Murphy, (Coquille Indian Tribe)
- 12. Rebecca Muse (South Slough National Estuarine Research Reserve)
- 13. Larry Reiber (Member-at-large)
- 14. Randy Smith (Oregon Department of Forestry)
- 15. John Sweet (Coos County Commissioner)

**Parentheses indicate the group represented by each member of the Board.

Statement of	Activities
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for the year ending December 2024

Revenues	
Grants	\$4,689,746
Contributions	\$49,648
Other income	\$241,725
Total revenue	\$4,981,119
Expenses	
Program services	\$4,524,403
Support services	\$323,940
Total expenses	\$4,848,343

THE NUMBERS EXPLAINED

Money we brought in – top chart

The majority (94%) of our funding comes from a mix of state and federal grants. **Quick note about federal grants:** the 57% includes both funding from federal agencies and federal funding that passes through state agencies.

The remaining 6% of our income from 2024 came from donations/fundraiser, Foundation grants, and fee-for-service contracts (other groups hiring us for projects).

How we spent it - bottom chart

Of all the funds we brought into Coos County in 2024, over half (65%) went towards contracted services—this includes hiring contractors (mostly local) for restoration, monitoring, and outreach projects. Local contractors are pointed out in bold throughout this report. We also purchase supplies locally whenever possible. Salaries and benefits made up a quarter of our budget in 2024 (23%). These funds came in the form of paychecks to 32 employees (15 permanent, 17 seasonal, including youth crew members) who are implementing this work. This is all part of our effort to bring money into Coos County and keep it here—thus supporting both ecological and economic health of our watershed.

Overall, 91% of our expenses go to on-the-ground programs (75% restoration, 10% monitoring, 6% engagement, 9% administrative support).



2024 Expenditures by Category \$4,848,343







Restoration Highlights

Instream & riparian restoration offer solutions for environment and economy

We take two main approaches to habitat restoration to holistically restore streams and their surrounding habitat while also boosting our local economy. In-stream projects take place right in the stream itself, such as building log jams, re-meandering creeks that have been straightened, removing barriers to migrating fish, and reducing the amount of sediment that enters the water from surrounding areas. We have been implementing these types of projects since the mid-1990s to improve the quality and quantity of habitat for a wide range of aquatic species, including salmon.

In 2024, as part of our commitment to providing both environmental and economic benefits to the watershed, we hired many local contractors for this earth, log, and stream-moving work and bought many of the needed supplies locally as well. **The money we bring into the community through grants stays in our community, creating/supporting dozens of local jobs**. This is especially true for contracted services, which made up 65% of our annual budget in 2024.

Restoring streams is only half of the puzzle: a healthy stream also needs plants! Through riparian restoration, our in-house planting crews create diverse native plant zones along the stream bank that offer shade, lower stream temperatures, reduce erosion, filter runoff, provide critical habitat for wildlife, and support the aquatic food web (for example, plants feed the insects, insects feed the salmon, and salmon nutrients feed the plants). Here are three examples of these types of restoration in action in 2024, starting at the "top" of the watershed and moving down into the estuary and bay.

Uplands

The upper reaches of our watershed hold some of the best habitats: the cold, fast-moving water is a beacon to migratory fish, their offspring that are born there, and a whole suite of other aquatic organisms. **Tioga Creek** is one such place, known for its high-quality habitat and high numbers of spawning adult salmon. But its 10-foot bedrock falls have experienced heavy alterations over the years, which substantially hindered fish passage and water quality until recently. These barriers have since been lifted through our recent actions, which included chiseling out passage channels through the bedrock and replacing upstream culverts with bridges (read the full story in our 2023 annual report).

And now, the final piece is complete: in 2024, we removed the retaining wall from an old and problematic fish ladder, improved the new channel on the left side of the falls, and have been monitoring the area closely for salmon. In collaboration with the Bureau of Land Management (BLM) and Oregon Department of Fish and Wildlife (ODFW), we counted nearly 200 fish attempting to pass the falls using the new channels and fish ladder this winter, and roughly 135 Coho and 15 Chinook spawning above the falls, where only very small numbers were making it up and over the falls before our work began. Even better news: during a spawning survey of the upper reaches of Tioga Creek a mile above the falls, BLM counted 125 live Coho and 13 dead, which was the highest number of Coho spotted in one spawning survey reach in decades of surveys. This is likely due to our instream projects in this area: we placed 136 whole trees (28 structures) over 1.2 miles of stream in 2024, and after a decade of placing log jams in these upper reaches, we are seeing really



Timber Roads LLC (local) cutting channels through bedrock at Tioga Falls



One of the older log jams placed in Tioga Creek above the falls (photo credit: Coos Bay BLM)



Coho spotted in upper Tioga reach above falls (photo credit: Coos Bay BLM)

promising habitat improvements, including the development of floodplains and side channels and deeper, narrower, cooler pools. We are seeing Coho utilizing these pools both upstream and downstream of the wood, further demonstrating the innumerable benefits of adding trees to streams—not to mention, removing the barriers to them getting there. Special thanks to our contractors, Kilgren Water Resources, Timber Roads, LLC (**local**), and TNT Construction & Excavation (**local**).

Lowlands



CoosWA staff and landowner examine lowland habitat at Kentuck Creek

As we move further down in the watershed, we encounter totally different habitats with often more complex needs than the upland areas. These lower areas are critical to juvenile salmon, offering resting/hiding/rearing habitat along the way to the ocean—but they often lack wood and gravel, house invasive species, and are also home to a whole suite of wildlife (e.g., beavers) and livestock, as well as more homeowners, businesses, farms, roads, city and county infrastructure, etc. All of this can create both challenges and opportunities for creative solutions that offer both economic and environmental benefit. Our goal in these areas is usually to rebuild lost wetland habitat, reshape streams that have been ditched and straightened, create areas of calmer water for migrating salmon to take a break from the faster-moving mainstem rivers, remove barriers that hinder fish access to upland spawning grounds, and hire local contractors to do the work.

Seelander Creek is situated along a narrow agricultural valley that has been heavily impacted by past management practices, resulting in stream channelization, removal of streamside vegetation, and poor water quality. It drains into Catching Slough near Coos Bay, and this area has been identified as a high priority for habitat restoration for Coho salmon. In 2024, our contractors (Timber Roads and Coos Excavation, **both local**) repaired/replaced bridges and upgraded tide gates to improve fish passage and tidal mixing. Next, our CoosWA planting crews will build riparian fences and reestablish streamside buffers with native plants. Once these tasks are complete, this will be a win-win/multi-use area that can be used for agriculture while keeping the creek and surrounding ecosystem protected and healthy.

Lillian Slough is located downstream from the confluence of two major salmonproducing systems (the Millicoma and South Fork Coos Rivers), making it a final resting area for migrating salmonids before fully entering the Coos estuary. This project was designed to create a complex habitat through a network of tidal channels and ponds, which allows fish to self-regulate along gradients of water velocity, salinity, and stream temperatures. During the first phase, our contractor (also the landowner, Scott Knox, local) re-meandered the creek, reconnected ~7,670 feet of historic channel, and installed a railcar bridge and a culvert to improve fish passage. Next spring (2025), our CoosWA crews will install livestock exclusion fencing and plant 9,000 plants along the bank. These actions will improve hydrologic connectivity between critical primary and secondary habitat types and provide access to ~1.6 miles of stream channel.



Wider channel and new bridge installed at Seelander Creek, improving agricultural use and water quality



Entrance to 3.5 acre tidal wetland pond with large wood structures for habitat at Lillian Slough

<u>The big picture</u>: restoration in our lowlands addresses the primary limiting factor for Coho salmon—lack of summer and winter offchannel rearing habitat—within the Lower Coos River, Lillian, and Catching Slough sub-basins. The hope is to increase juvenile survival and abundance while creating a more robust, healthier, out-migrating smolt population.

Instream & riparian restoration offer solutions for environment

All of the stories mentioned thus far are part of the <u>Coos Basin Coho Partnership</u> (CBP), a grassroots group that seeks to recover Coho salmon populations in the Coos Basin. This Partnership, which includes 15 entities (and over 30 people) at the tribal, state, federal, industry, and local level, grew out of the <u>Strategic Action Plan (SAP) for Coho Salmon in the Coos Basin</u>. The SAP outlines the long-term strategies that need to be enacted over the next 25 years to sustain our coastal Coho salmon into the future—and points to 30+ sites across 13 sub-basins in the Coos watershed that are the highest priority for restoration efforts. The highest priority projects are those that remove barriers and address key limiting factors for Coho, such as the quantity and quality of summer and winter off-channel rearing habitat (and access to this habitat). *While Coho are central to the mission, the benefits of Coho restoration go far beyond one species:* habitat restoration for Coho benefits hundreds of other types of fish and wildlife (including the aquatic insects they feed on), not to mention the improved economic and human health outcomes (physical, mental, and social) that accompany healthier water and a more robust salmon population.

New in 2024: we **launched a new website** through a partnership with Pacwest, a Coos Bay production and marketing firm (**local**). Check it out at <u>cooscoho.org</u>. You can also find the CBP on Facebook (@Coos Basin Coho Partnership)—tell your fish-loving friends and family members to follow the page for updates!

The CBP is funded by an \$11 million Focused Investment Partnership grant from the Oregon Watershed Enhancement Board, with nearly \$12 million in matching funds from CBP partners.



Map of the Coos watershed with high priority restoration areas outlined in the Strategic Action Plan for Coho in the Coos Basin:

Lower Coos Basin (YELLOW): Winchester Creek (1), Coalbank Slough (2), Ross Slough (3), Upper Catching Slough (4), Vogel Creek (5), Millicoma River (6), Kentuck Creek (7), Larson Creek (8), Palouse Creek (9)

Upper Coos Basin (ORANGE): West Fork Millicoma River (10), East Fork Millicoma River (11), Tioga Creek (12), Cedar Creek (13).

For more info about the SAP and the projects being chosen, visit <u>cooscoho.org</u>.

Feature Story: Palouse Slough Primary Tide Gate

In 2024, we finished a long-time-in-the-making tide gate project just off North Bay Road (Haynes Inlet/Palouse Slough) in North Bend. The old tide gate, owned by the Haynes Drainage District, was failing, and because it was attached to a county bridge, maintenance had been especially challenging. In 2024, through a partnership with the Haynes Drainage District and Coos County Roads Department, we removed the failing gate and replaced it with a new, larger, and more fish-friendly tide gate upstream of—and totally separate from—the bridge. As you might imagine, this was a challenging project to carry out in an area with so much water: in order to place a new gate here, our contractors from West Coast Contractors (local) and SWCA Environmental Consultants/River Design Group installed both temporary structures (called coffer dams, which function like isolation chambers, allowing us to drain all the water from inside the walls in order to place tide gates), and permanent structures (sheet piles) that the new tide gate is now mounted to. A lot of this work needed to happen at low tide, which made for some wild hours, such as brace welding at 3 am. This project needed a LOT of people power and employed a huge team of 19 West Coast Contractors field and shop employees (two new people hired for this project specifically), and three subcontractors (all local).



Old, failing gate on Palouse Slough

Why this gate is so great

There are hundreds of tide gates in the lower-lying portions of the Coos watershed. When they're working as designed, they allow landowners to control the amount of water coming into and out of the low-lying areas, which may include farms, roads, and other infrastructure that would otherwise be underwater at high tide. But when they get old and fail, they are a problem for both people (for example, too much water coming into dry areas or emergency routes) and fish (old gates aren't open long enough to allow migratory salmon to pass through). Modern tide gates open more regularly and stay open longer, which is a win-win for the people and fish who call these areas home.

Gate or... monitoring machine?



PIT tag array attached to the upstream side of Palouse tide gate to monitor fish use

This gate includes muted tidal regulator (MTR) attachments (designed by Nehalem Marine), which keeps the doors open a little longer on the incoming tide to provide more fish passage and allow tidal exchange to improve water quality. But we didn't stop there: we installed water quality sensors (water level, salinity, temperature, dissolved oxygen) on the upstream and downstream side of the gate to track habitat quality during important migratory periods. We also added door angle sensors to

each of the four bay doors and a velocity sensor to monitor the function of this new tide gate design. Additionally, our Life Cycle Monitoring (LCM) team equipped the gate with seven antennas to record tagged fish as they swim through the gate, which will help us understand the numbers and routes of Coho traveling between the estuary and the upper spawning and rearing reaches of Palouse Creek. Altogether, this sensor equipment will give us a comprehensive look at tide gate function for landowner usage and fish passage, providing a more informed way to adaptively manage for both. **Thus, this tide gate is more of a "Swiss army knife," as it is both a gate and a monitoring machine!**

West Coast Contractors start to build coffer dam



CoosWA Project Manager for Palouse Slough project, Allison Tarbox



Left: Drone shot of coffer dam (temporary) with permanent sheets in the middle. *Right:* View of the new doors installed inside the coffer dam with water pumped down.



The new design: four gate doors completely separated from County infrastructure (bridge). North Bay Road runs through both photos.



New gates at sunset (*left*) and fully open during outgoing tide (*right*).

It takes a village

Thank you to our many partners who made this project a reality by committing to making it happen, including the many years leading up to this stage: Haynes Drainage District, Coos County, SWCA Environmental Consultants/River Design Group, West Coast Contractors, Nehalem Marine, Coquille Indian Tribe, Oregon Department of Fish and Wildlife (ODFW) Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians, NOAA Fisheries, The Nature Conservancy, Oregon Wildlife Foundation, and Business Oregon. This project is part of the Coos Basin Coho Partnership, a group of 15 organizations (and over 30 people) dedicated to the recovery of Oregon Coast Coho Salmon in the Coos Basin. Construction components were funded by a Focused Investment Partnership grant from the Oregon Watershed Enhancement Board (OWEB) and multiple ODFW opportunities, including the Private Forest Accord Grant Program, a result of a landmark conservation initiative working to conserve Oregon's forests for current and future generations.

Native Plants Program

Native plants, those that are local to Oregon (and sometimes just the coast), are a critical piece to our habitat restoration program due to their innumerable ecological, cultural, and historical benefits. Whether they are growing along a stream in a pasture, in an urban garden, or in your own back yard, native plants provide shade, prevent erosion, filter stormwater, create wildlife habitat, and support ecological food webs that we all depend on whether we realize it or not! The goal of our native plants program is to get as many native species out in the landscape as possible and to empower community members to take part in this effort through a volunteer program at our native plant nursery.

2024 was another great year for the **Matson Creek Native Plant Nursery:** we produced 13,000 trees and shrubs—19 native species—for our restoration projects. We also saw investments from previous nursery development projects start to pay off in a big way! The plants in our shrub production plot have reached harvestable size, creating a long-term source of inexpensive source stock for nursery propagation. Our production plot of *Lupinus rivularis* (riverbank lupine) reached maturity, producing more than 20 pounds of seed. With a market value of \$1,800, these seeds represent a significant resource that will allow us to add wildlife value and spectacular color to our plantings at a minimal cost because we produced them ourselves. Lastly, we



Volunteer plants hemlock in nursery raised bed

established eight pools of wetland species which will allow us to add structure and diversity to ponds and wetlands. For instance, the giant leaves of species like *Nuphar polysepala* (great yellow pond lily) rapidly create shade on waterways much faster than conventional riparian plants.

Many hands, many hours. We hosted nine volunteer days at the nursery in 2024 that brought in 30 volunteers, who contributed 75.5 hours of impactful work! We are thankful for our volunteers who spent their time and energy contributing to our beautiful nursery by building raised beds, propagating shrubs, harvesting cuttings, processing seeds, heeling in trees, and pulling weeds. These volunteers have greatly increased the capacity of what we do out there—and made it way more fun with their company. We are offering Saturday volunteer days again in 2025—check out our website and social media pages for more info!

From the nursery to the field. The hard work at the nursery pays off when we get to add thousands of healthy, locally grown, and resilient plants to our restoration sites. The planting crew planted about 10,000 native plants across our restoration sites during the 2023-2024 planting season. Our biggest planting project this year, however, started at the end of 2024 once the earth work was complete at South Slough's Wasson Creek Ridgetop-to-Estuary restoration project. Between 2024 and 2025, we will plant 21,000 trees and shrubs at this one site: so far, we have planted about 9,500 plants and spread 146 pounds of native seeds from 17 native wetland species collected by our seeds crew. For more info about this unique "stage zero" restoration, click here, or visit



Volunteers take cuttings from native plants at the nursery (*left*); plants crew sorts 146 lbs of native seed mix for the South Slough Wasson restoration project (*right*)

https://www.oregon.gov/dsl/ss/pages/stewardship.aspx.

Noxious Weeds Program

Species spotlight: Spanish heath is an invasive shrub that acts similarly to Scotch broom and is working its way north from the California border, where it has heavily invaded roadsides and working forest lands. In 2023, the first known population in the Coos watershed was discovered on forested land owned by the Coos Bay/North Bend Water Board. Thankfully, we caught it early, and the Water Board is supportive and proactive: we have been surveying and removing plants often, including a considerable effort in July of 2024 with our summer youth crew. At this point, all known populations are under control, and we are hopeful that we can use the word "eradicated" in a few years—until then, we will be monitoring for tiny seedlings that are likely to pop up in the near future (each plant can produce up to a million tiny seeds each year).



Spanish heath: pretty but NOT wanted here!

On-the-ground projects. We continued our long-term knotweed project on the South Fork Coos River, with several more landowners joining the effort in 2024. Our Policeman's helmet eradication on North Slough is seeing fewer plants each year: what started out as several acres spanning 15 properties has become only a handful of plants each year on five properties (persistence pays off!). We also began treating yellow flag iris near active restoration projects, as these areas are sensitive to invasion, and treated over 300 acres of land for gorse (four total acres of gorse killed).

Weeds bring people together. CoosWA and the Gorse Action Group hosted the 3rd annual Gorse Pedal & Pull, a mountain biking and gorse-pulling event on the Whiskey Run Bike Trails between Coos Bay and Bandon. Our 12 gorse-pullers hand-pulled **54 pounds of gorse seedlings** and celebrated with an after-party featuring snacks and drinks from 7 Devils. We are grateful to the Bandon Dunes Charitable Foundation for sponsoring our work with the Gorse Action Group, and to the many other local partners that came together to support this incredibly fun, silly event with a seriously cool ecological outcome!

Collaboration is the name of the game for all watershed projects, but particularly noxious weeds—we need all the help we can get! In 2024, we hosted eight weed-pull events across the watershed (Airport Heights Park, SWOCC, Mingus Park, Millicoma Marsh, Bay Area Hospital Wellness Trail, and Whiskey Run Bike Trails). During these events, **our 137 volunteers** removed Scotch broom, jubata grass, English ivy, cotoneaster, Himalayan blackberry, English holly, and gorse. We also started teaming up with Oregon Bay Area Beautification (OBAB) in 2024 to cover more ground for noxious weeds removal.

What can you do? Please call us if you think you've seen Spanish heath (featured above) and keep an eye out for our Weed of the Month ad that is published in the South Coast Shopper and on social media each month with pertinent info about high priority weeds we need help finding and eliminating.



Pedal & Pull participants remove gorse seedlings from Whiskey Run bike trails (left, middle); Weed of the Month ad (right)

Science & Monitoring Highlights

Effectiveness Monitoring

As we continue to implement restoration projects, how will we know our efforts were successful? As part of the "Strategic Action Plan for Coho in the Coos Basin" (see page 8), we recently developed a new and improved Restoration Effectiveness Monitoring Plan that helps us more comprehensively track the "ecological uplift" of current projects over the long-term (10+ years). This plan builds on decades of monitoring and assessments completed in our watershed, and we began implementing it in the summer of 2024 through habitat surveys, Coho spawning surveys, and juvenile seining. We even did a series of drone flights over one restoration site to get

high-resolution imagery and LiDAR in partnership with the South Slough Reserve. And when we didn't need to be in the field, we let sensors do the work! We currently have over 60 year-round water level and salinity sensors at project sites throughout the basin and seasonally place velocity sensors to track fish passage. Additionally, we placed 25 water temperature loggers throughout the summer season to track habitat conditions for Coho and other aquatic life. These numbers continue to grow with each project.

One focal point for CoosWA in 2024 was the newly installed Palouse Slough primary tide gate, which our team has turned into a monitoring machine (see Restoration Feature Story on page 9)! We aim to quantify the improvements to Palouse Slough, along with other adaptive tide gates, in balancing land use practices and ecosystem enhancements as well as providing actionable information for the management of native salmonid fishes by informing adaptive management.



Palouse antenna array, part of the "monitoring machine"

Life Cycle Monitoring (LCM) Program

Tracking Coho salmon is a cornerstone of our monitoring program. This was the 20th year of the CoosWA LCM program, which relies on different tracking and trapping techniques to monitor population demographics and assess the growth and survival of salmon on two tidally influenced streams in our watershed, Willanch and Palouse Creeks.

We conducted spawning surveys from October 2024 to February 2025. In Willanch Creek, we observed fish two weeks earlier than last season, and we counted 78 fish compared to 39 last year. In Palouse, we also saw more Coho than last season (853 compared to 708). Although both streams are within their normal range of estimated spawners over the 20-year study period, both saw an increase of more than 15 Coho per mile of stream surveyed over the previous season.

Using methods such as seining (summer) and rotary screw traps (winter and spring), the LCM team identified, counted, weighed, measured, and marked Coho salmon with individual PIT tags to help track their movements within these sub-basins. To help with these tasks, we hosted three interns from Southwestern Oregon Community College, Oregon Institute of Marine Biology, and the Hutton



Junior Fisheries Biology Program led by the Bureau of Land Management and American Fisheries Society. Overall, we caught over 3,800 juvenile Coho, and tagged more than 1,200 of them, plus many more species! We are grateful to the 60+ interns who have supported the LCM program since 2012.

Coho on redd at Palouse (*left*); LCM interns weigh, measure, and tag juvenile Coho salmon (*right*)

Science & Monitoring Highlights continued

Hydrology and Stream Gauges

CoosWA continues to operate and maintain seven stream gauges in and around the Coos Basin's rivers and creeks (East and West Fork Millicoma, Marlow, South Fork Coos, Tioga, Tenmile, and Eel). These gauges track stream flow, water quality (temperature, sediment levels, and turbidity), and weather data (air temperature, relative humidity, barometric pressure, vapor pressure, solar radiation, wind speed/direction, wind gust, precipitation, and lightning strike count and distance). In 2024, we added weather sensors to the Tioga and Marlow stream gauges and replaced numerous ailing and/or failing sensors to provide more reliable and accurate data. **This**

information, particularly stream flow and volume data over time, helps us evaluate and design new projects (and improve existing ones), and is particularly helpful in designing new tide gates. In fact, SWCA Environmental Consultants/River Design Group used stream gauge data to model the design of the Palouse tide gate—specifically, the data showed the need for four tide gate doors to release the expected amount of water during storm events, while also allowing for optimal fish passage.

The info is all publicly available and utilized by a variety of end users via our website, where real-time stream data are uploaded every 15 minutes for public use (<u>http://streamdata.cooswatershed.org/</u>). The website is especially helpful to check during winter weather when the rivers fill up!



Acoustic Doppler Current Profiler takes hydrological monitoring to a new level!

In 2024, our monitoring team also purchased an **Acoustic Doppler Current Profiler** that measures high flow, evaluates current velocities upstream and downstream of tide gates (such as Palouse, see page 9), and is easier and safer to use than our previous system. Previously, to measure stream flow, we lowered a bridgeboard and weights into the water from a bridge, which has the potential to get caught on logs or debris and pull the equipment and/or the hydrographer off the bridge into raging waters!

Outreach & Education Highlights

Community Events

We hosted more events and interacted with more people in 2024 than we ever have before: nearly 1,700 people attended an event or stopped by our booth at the Coos Bay Farmers Market, the Coquille Indian Tribe's Mill-Luck Salmon Celebration, 4th of July in the Park, or Octoberfish! Here are some highlights from the whirlwind of our 2024 event season.

30th **birthday bash.** We had a milestone birthday in 2024—the big 3-0—and threw a big party at the Bristol Event Center! It felt great to dress up and celebrate with the community members, supporters, and friends who have made us who we are and been with us every step of the way. With **130 tickets sold and \$25,000 raised**, we consider this the most successful fundraiser in our history. These fundraised dollars



SWOCC leads watershed model for Mayfly festivalgoers

will be a huge support to 2025 programs, specifically the Mayfly Festival, Teddy Villers scholarship, and continued development of the Matson Creek Environmental Learning Center.



Community gathers to celebrate 30th birthday bash at Bristol Event Center

The annual **Coos Watershed Mayfly Festival** returned once again to Mingus Park, which engaged at least 500 visitors in watershed conversations, activities, games, music, and fun. This free, family-friendly event gives our community a safe and fun way to explore and enjoy nature while learning about watershed ecology and interconnectedness. Through this event, we aim to empower community members to improve watershed health in their daily lives, starting by recognizing that we all live in a watershed and that we impact it every day through our actions. This year, we welcomed eight new organizations to the Mayfly family and expanded significantly to nearly 30 activity booths. Mark your calendars for the 9th annual Mayfly Festival on **May 17, 2025!**

Outreach & Education Highlights continued

This summer, we offered a new **Nature and Nurture event series** as a way to tap into the sciencesupported connection between human and environmental health. Our events invited 70 participants to experience their home watershed from potentially new perspectives, through a combination of outdoor mindfulness and stewardship. Activities included "Welcoming Watercolors" with Josie's Art Lab (**local**) at Mingus Park), "Stress Less, Go Outside" at the Egyptian Theatre) and "Mindfulness in Nature" at the Millicoma Marsh with Dr. Sabine Huemer from Oregon State University, a forest bathing walk with the local mindfulness gurus at Mossy Lotus (**local contractor**) at the Bay Area Hospital Wellness Trail), and invasive species removal at each site. Thank you to everyone who helped us turn this fun new idea into reality, especially our hosts, workshop facilitators, participants, and funders (Oregon State Weed Board, Marshfield Z Club, and local donors to CoosWA's 2023 fundraiser).



Forest Bathing in Nature & Nurture



Stenciling with Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians at North Bend City Hall

This summer, we also had the pleasure of working on two fun and meaningful **urban art and signage projects** in partnership with the Confederated Tribes of Coos, Lower

Umpqua, and Siuslaw Indians. First, our "Drains to Bay/Bay Aware" project shared the message that stormwater runoff is harming our local waterways, but we can all do something to help, starting by recognizing the problem. Look for our custom-made storm drain stencils that feature a lineup of local critters impacted by water pollution, such as lamprey and salmon. **The designs feature text as well, including "Water Is Life" stencils in hanis and miluk (the native, ancestral languages of the Coos Bay and North Bend Area) as a way to emphasize the significance of clean water to all Coos watershed people and cultures, past, present, and future. With the help of 15 volunteers, we painted eight designs along Newmark in downtown Empire, two at Mingus Park, three at North Bend City Hall, and one in downtown Coos Bay. We hope to expand this project in 2025, so be on the lookout for more "art with a message" in the future!**

Second, we teamed up with the City of Coos Bay, CTCLUSI, Oregon graphic designer Ram Papish, and muralist Monica Deatherage (Brushworks LLC, **local**) to bring **art and interpretive signs** to the new parking lot at 3rd and Central in downtown Coos Bay. In 2024, we added one large

interpretive sign explaining the permeable pavement design feature, seven native plant identification signs, one huge river-themed sidewalk mural, and hosted three outdoor movie nights in this unique new gathering space. Stay tuned for more events in this space in the future!



Stencils at Mingus Park (left) and river mural by Brushworks LLC (*middle*) and permeable pavement interpretive sign (*right*) at stormwater-filtering parking lot in downtown Coos Bay

Outreach & Education Highlights continued

Youth Engagement

In 2024, we continued our programs with local high schools in partnership with the Oregon Youth Corps and Gray Family Foundation. During the school year, students in our Destinations Academy watershed program toured Valley Flora Farm for school garden inspiration, learned about the life of a park ranger at Shore Acres State Park, improved bird habitat at Millicoma Marsh, maintained the native landscaping at the Coos History Museum, toured the Palouse tide gate project, and carried out a salmon spawning survey in the upper reaches of Palouse Creek—as a way to explore different topics and career pathways in natural resources while further developing their own connections to the watershed. They also grew hundreds of tomato seedlings to give away at the Mayfly Festival, put together a greenhouse, planted, harvested, ate, and shared lots of veggies with peers and teachers, and began staining a new fence provided by Destinations Academy that now surrounds the garden and creates a safe and welcoming outdoor learning environment for both high school students and the preschoolers who share the school.



School year students trek to Palouse Creek for Coho salmon spawning survey

While our school-year students were taking a break from watershed work over the summer, our **summer youth crew program** was in full force! We employed six local high school students, who earned **\$30,724 in net/take-home pay** during their summer with us. The crew visited five project sites to perform maintenance on our riparian plantings, primarily via mowing, which allows native trees to mature without the competition of invasive grasses and brambles. They also assisted with a long-term native plant restoration project at Bastendorff Beach, helped remove invasive European beachgrass, and were invaluable in the maintenance and operation of our nursery facility, ensuring that plants for future projects will go out into the field strong and healthy. The 2024 group was stellar, and they gained numerous skills this summer that will help them in their next jobs/career paths.



Summer youth crew frees native plants from competition at Kentuck Creek restoration project (photo credit: Wild Salmon Center)

Teddy Villers Natural Resource Scholarship



The Teddy Villers scholarship honors the life of Teddy Villers.

In 2024, the Villers Family of Blue Ridge Timber Company and the Coos Watershed Association awarded the 8th annual Teddy Villers Natural Resource scholarship. This award honors the life of Teddy Villers (October 7, 2004 – September 4, 2015). Teddy, son of Mark and Adela Villers, lost his life while working on a salmon habitat restoration project with his dad in September 2015. He

had a strong curiosity and deep passion for the natural world and, from an early age, loved being outside working with his dad in the woods on projects that improved the watershed for both wildlife and people. The Villers family established a scholarship in Teddy's name, which is awarded to a local candidate each year who demonstrates a passion for and commitment to pursuing post-secondary education in the field of natural resources.

We were pleased to award the 2024 scholarship to Ava Thomas, a Marshfield High School student planning to study Zoology and Biology at Oregon State University. Previous recipients of this award include Paige Speakman (2023), Aubrey Turner (2022), Abby Richards (2021), Alissa McCord (2020), Melanie Cavanagh (2019), Cole Michael Smith (2018), and Jamie Decker (2017).



Ava Thomas, recipient of the 2024 Teddy Villers Scholarship.

Board & Staff Milestones & Anniversaries

Over the past 30 years, the Association has had the pleasure of employing **237 staff members** (including 74 youth crew members!) and welcoming **92 board members**. Board members go above and beyond to guide and support the Association, through regular board meetings, committees, planning sessions, and volunteer events. Two board members reached important milestones in 2024: **Randy Smith** (10 years) and **Kristopher Murphy** (5 years), and five members either joined the board in 2024 (Larry Reiber, Lucas Green) or celebrated their one-year anniversary this year (**Amy Burgess**, **Rebecca Muse, and Rishia Latta**).



Board members celebrating milestones in 2024: Randy Smith (10 years on board), Kristopher Murphy (5 years).

On the staff side, **Freelin Reasor** celebrates *twenty years* with CoosWA! He is the second staff member (out of 237) who has reached the 20-year milestone, having joined CoosWA shortly after Dan Draper, who celebrated his two decades in 2023.

Freelin took his first steps as a child in the Coos watershed and has spent most of his life here. Before coming to CoosWA, Freelin worked as a Water Quality Technician with the Coquille Indian Tribe. Then he came to CoosWA and never left! Over the years, he has held many titles: monitoring technician (2004-2010), hydrologic technician (2010-2016), Water Resources/Road Assessments Program Leader (2017-2019), Hydrological Specialist (2020-present), and Dan's Lunch Buddy (2004-present). These days, he operates all of our stream gauging and weather stations, monitors water quality, writes grants and reports, performs GIS modeling and analysis, and serves as CoosWA's resident computer expert. Outside of the office, Freelin enjoys picking mushrooms, watching his daughter coach high school club volleyball, and recently got back into his lifelong passion for surfing. He also has a great love for classic Volkswagen vans, and we are sure he will one day be retired and cruising around in his fully restored VW Westfalia Camper van with a surfboard or two riding on top!



Freelin Reasor celebrates 20 years at CoosWA, 2004 - 2024

Looking Ahead

Volunteer with us!

We are offering a weekend volunteer opportunity at the Matson Creek native plant nursery each month in 2025. This is a great chance to get some outdoor time, meet community and CoosWA staff members, and contribute to the watershed in a meaningful way while spending time in one of its prettiest places. We also welcome you as a volunteer or participant in our 9th annual Coos Watershed Mayfly Festival. Visit <u>www.cooswatershed.org/mayfly-festival</u> for more info. Additionally, we offer various invasive species cleanup events throughout the year—check our website and follow us on social media!



Watershed Association!











THANK YOU

As we look ahead to our 31st year, we would like to extend a huge thank you to the many partners, landowners, funders, field techs, volunteers, interns, students, and community supporters who made sure that 2024 was a wonderful year for the watershed. There are too many of you to list here, but we are grateful to each and every one of you for giving us the capacity and drive to continue this work. We look forward to collaborating with you again next year! *Help us celebrate our 31st year with the following events in 2025: the 9th annual Mayfly Festival (May 17 at Mingus Park), our 31st Birthday Bash Fundraiser (September 6), and many more fun things in-between.*

To learn more about these events and other opportunities, choose from any of the following: sign up for our email list to receive our newsletters (scroll to bottom of the page at https://cooswatershed.org/), visit our website and social media pages, give us a call, shoot us an email, or stop by our office. We look forward to hearing from you!

Sincerely, the CoosWA board and staff

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Photo credit: Eiko Jones Photography

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