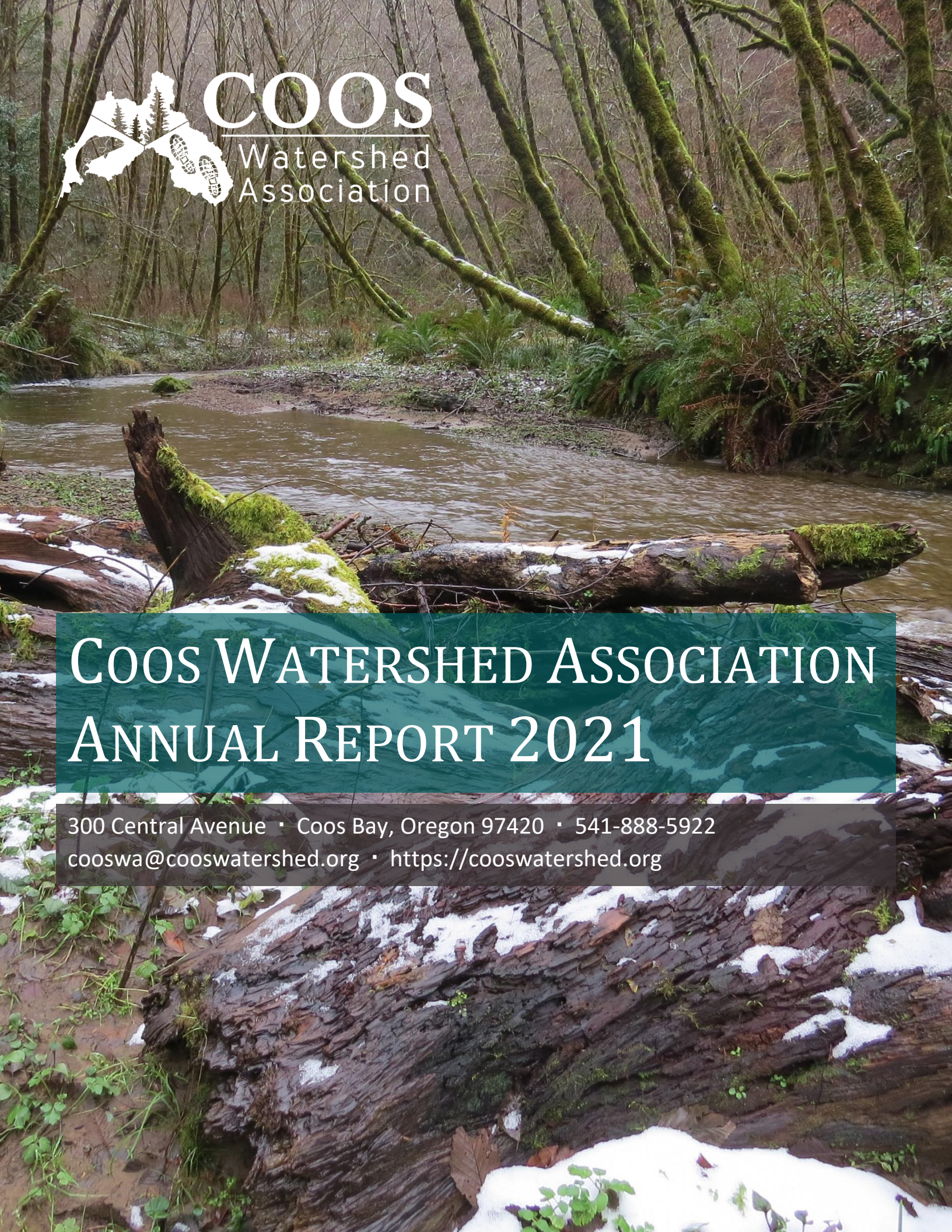


COOS Watershed Association

Coos Watershed Association Annual Report 2021

300 Central Avenue · Coos Bay, Oregon 97420 · 541-888-5922
cooswa@cooswatershed.org · https://cooswatershed.org

Our Mission

Support environmental integrity and economic stability within the Coos watershed by increasing community capacity to develop, test, promote, and implement management practices in the interests of watershed health.

A note from our Director

Adaptation continues to be the name of the game at both an environmental and organizational level. Change is constant and this year has been no different. What *has* been consistent is our board and staff's commitment to working with our community and partners to improve the ecological health of the Coos watershed in a manner that is sustainable, resilient, and supportive of our local economy and culture. Throughout this report you will see a few highlights of the nearly two-million-dollar investment our organization has made alongside our partners and willing landowners in the health and vitality of the Coos watershed. None of this work is possible without the support of our community, and we continue to be incredibly grateful for that continued support even during rocky times.

With gratitude,

Haley Lutz

2021 Staff Members

1. Haley Lutz, Executive Director
2. Chris Bauman, Financial and Office Manager
3. Alexa Carleton, Outreach Coordinator
4. Dan Draper, Restoration Project Manager
5. Freelin Reasor, Hydrological Specialist
6. Ed Hughes, Fish Ecologist
7. Maria Farinacci, Fisheries Research Assistant
8. Mack Hardy – Fisheries Research Assistant
9. Allison Tarbox, Restoration Project Manager
10. Ed Cope, Plant Programs Manager
11. Dave Nelson, Restoration Crew Lead
12. Anders Hansen, Plants Restoration Technician
13. Lucy Allison, Noxious Weeds Coordinator

Thank you to our 2021 seasonal crew members:

Elijah Barry, Kelsey Flathers, Logan Griffin, Jamie Harrison, Dezel Hoover-Wallace, AJ Kliewer, Kalub Moncur, and James Orr

Thank you to our 2021 interns:

Twinkle Fluetsch, Bailey Higgins, Abby Richards, and Dean Yurica

2021 Board Members

1. Bree Yednock, President (South Slough National Estuarine Research Reserve)
2. Jeff Messerle, Vice President (Agriculture)
3. Elise Hamner, Treasurer (Southwestern Oregon Community College)
4. Kristopher Murphy, Secretary (Coquille Indian Tribe)
5. Randy Smith, Past President (Oregon Department of Forestry)
6. Mike Dunning (OR International Port of Coos Bay)
7. Marty Giles (Recreation & Tourism)
8. Joan Mahaffy (Agriculture)
9. Bradford McKeown (Member-at-large)
10. Joe Metzler (Cape Arago Audubon Society)
11. Jason Richardson, PE (Weyerhaeuser Company)
12. Al Solomon, Ph.D. (Member-at-large)
13. John Sweet (County Commissioner, Coos County)
14. Roselynn Lwenya (Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians)
15. Don Yost (Member-at-large)
16. Jennifer Wirsing (City of Coos Bay)

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

Restoration Highlights

Instream Restoration

CoosWA began implementing in-stream restoration projects in the mid-1990s as a way to improve the quality and quantity of coho salmon habitat. In-stream projects are those that take place right in the stream itself, such as building log jams, reshaping streams that have been channelized, removing barriers to migrating fish, and reducing the amount of sediment that enters the water from surrounding areas. Here's a snapshot of what that looked like for 2021.

Catching Creek, following bank pull-back and erosion control.

In the Catching Slough sub-basin, we started to wrap up a project we began in 2020 along Catching and Boone Creeks. Historical land use practices have greatly altered this basin, especially through stream bank erosion, high sediment inputs, and lack of riparian vegetation, which create poor habitat quality for salmon and other aquatic organisms. To address these issues, during 2021 we pulled back the bank to create a more gradual slope for planting; planted over 4,000 native trees and shrubs to stabilize the banks, cool the water, and provide a future source of large woody debris (see Riparian section below); installed fencing to protect over two miles of stream from livestock; and previously (2020) upgraded 11 undersized and failing stream crossings[1].

Blue Ridge Timber Cutting pulls blowdown log[2] into Marlow Creek.

In the Marlow sub-basin, we continued the work we've been doing with Oregon Department of Forestry for the last couple decades, which is largely focused on getting more wood and gravel into Marlow Creek and making the upper reaches more accessible to migrating fish. In 2021, our contractors from Blue Ridge Timber Cutting built 22 log jams along a four-mile section of stream. By placing wood directly into the stream, we are mimicking the natural process of trees falling into the water, which encourages gravel and additional wood to build up and creates complex pools, secondary channels, eddies, alcoves, and cooler water temperatures—all essential components of healthy spawning and rearing habitat. We also widened passage routes through boulder falls so adult salmonids are now more able to access the two miles of spawning and rearing habitat upstream.

In the upper reaches of the watershed, CoosWA partnered with the Bureau of Land Management and Bavarian Olympus Timber to conclude Phase II of a project along Tioga Creek that began in 2015. Tioga is considered a high-priority basin, known for its high-quality habitat and high numbers of spawning adult salmon—but also for its low counts of wood and pools, a legacy impact of timber practices in this area (e.g., log driving, stream cleaning). In 2021, we built 16 log jams on a section of Tioga Creek with exposed bedrock and high temperatures. The instream wood will allow gravel to build up over the bedrock, create deep, cold, scour pools, and ensure that the water traveling downstream is very cold, which is especially important for these headwater reaches that impact all the areas downstream. We also removed three failing, double culvert stream crossings that will improve access to a mile of upstream habitat. The final phase of the project (2022) will involve replacing those stream crossings with bridges.

Lowlands update: In the lower reaches of our watershed, CoosWA is developing several projects that address private and public infrastructure, improve water quality, promote juvenile fish rearing, and reconnect primary and secondary stream habitats while helping wildlife flourish in these landscapes. In 2021, we began planning work for future projects in Catching, Kentuck, Larson, Lillian, Millicoma, Palouse, and Seelander Creeks and will provide more info in upcoming annual reports and newsletters.

[1] ***Stream crossing****: wherever a stream intersects a road, such as a culvert. When undersized or in danger of failing, we will often replace with a larger culvert or bridge.*
[2] ***Blowdown logs*** *have fallen over naturally and may be pulled into restoration areas nearby.*

Restoration Highlights continued

Feature story: Williams River Quarry Falls

This summer, we teamed up with Weyerhaeuser on a project in the far, upper reaches of the Coos watershed (the southeastern portion that extends into Douglas County) that opened up access to 21 miles of high-quality habitat that had previously been minimally accessible to fish. The Williams River is the largest tributary to the South Fork Coos River and provides essential habitat for many types of aquatic wildlife, including Oregon Coast coho salmon making their way upstream. Until recently, they faced a major challenge when they reached the Williams River Quarry Falls, a man-made barrier created by road building and historic quarry activities in the 1960s. For decades, this has been considered the #1 priority fish passage barrier remaining in the Coos basin.

Williams River Quarry Falls pre-restoration (photo taken in 2013).

The biggest barrier was the giant boulders in this section of the river, which our contractors from LBA Contract Cutting broke into smaller pieces with specialized machinery (rock hammer, rock drill). The channel was also very narrow and steep, so we reshaped it to be wider (from eight feet to 45 feet across) and more gently sloped, and buried 73 root wads in the newly shaped bank for extra stability. During high flows, these wide, evenly sloped, reinforced banks allow more room for water to flow and decrease the speed of the flow, all of which helps protect streamside areas from erosion and makes life easier for the fish trying to swim upstream. Without confined high velocities and excessive jump heights, the area is now accessible during all flows to both juveniles and adults.

August 2021: CoosWA staff and partners use electroshocker as part of the process of moving over 1,200 aquatic organisms out of Williams River Quarry Falls restoration area.

We completed the in-stream component of this project in 2021. Our work in 2022 and beyond will focus on riparian planting, habitat surveys, and fish monitoring. This project has taken years of planning and collaboration with many groups. We'd like to especially thank Weyerhaeuser, LBA Contract Cutting, National Fish and Wildlife Foundation, NOAA Restoration Center, Oregon Department of Fish and Wildlife, Oregon Watershed Enhancement Board, Oregon Youth Corps, and Wild Salmon Center for their continued partnership on this project!

Left: boulder resizing and channel reshaping begins (August 2021). *Right:* resizing and reshaping complete, letting in winter flows (December 2021).

Restoration Highlights continued

Riparian Restoration

Healthy riparian zones, or areas of vegetation along stream banks, play a central role in creating habitat for aquatic species. Our 2021 riparian restoration crew was busy planting over 7,000 native trees and shrubs across nine project sites. These projects were conducted on land owned by the State of Oregon, City of Coos Bay, Bureau of Land Management, and many private landowners. The majority of these planting projects help to establish buffer zones along riparian corridors, which help keep our local waters clean and cool for the organisms that rely on them.

Planting area along Catching Creek in Catching Slough sub-basin.

Noxious Weeds Program

Over the last year the noxious weeds program has undergone a slight change in mission goal, in the hopes of coupling weed work more closely with restoration efforts. As part of this change, we created a new position—Plants Restoration Technician—to conduct both planting and fencing aspects in the winter and noxious weed removal and youth crew work in the summer. In the coupling of these two aspects of restoration, we strive to make our program more holistic.

While the position has changed somewhat, the core values remain the same: to educate landowners on the variety of invasive species present in Coos County and ultimately assist them with removing problematic weeds and replacing them with native species.

Noxious weed highlights from 2021 include the control of 1) European beachgrass at Bastendorff, 2) gorse at the whiskey run trail system, 3) biddy-biddy at Capes Blanco and Arago, and 4) Scotch broom, gorse, and thistle on Bandon Marsh's new trail. We are also in the process of revisiting old gorse and knotweed sites to treat as many remaining populations as possible. These species are popping up more often on Coos Bay/North Bend residential properties, so please let us know if you find any.

CoosWA Summer Restoration Crew removes invasive European beachgrass from Bastendorff Beach.

We also participated in noxious weed education and outreach efforts including the Cooperative Weed Management Area's Weed of the Month, the Coos County Cost Share program, and ivy pull public volunteer events. With Covid-19 possibly abating this coming year, we are looking forward to expanding our outreach, education, and community collaboration activities to pre-Covid levels and continuing our collaborations with Bureau of Land Management, Cities of Coos Bay and North Bend, Coos County Noxious Weeds Advisory Board, Coquille Watershed Association, Gorse Action group, Oregon Department of Agriculture, Oregon State Parks, Port of Coos Bay, South Coast Cooperative Weed Management Area, South Slough National Estuarine Research Reserve, US Fish and Wildlife, US Forest Service, and the many landowners in our watershed.

Matson Nursery Update

The Matson Creek Native Plant Nursery had a transformative year. The garage received substantial repair work: by completing the fourth wall, the structure now serves as dry, lockable storage for tools and gear. This includes a new crew truck and a new ATV, which were purchased to replace their aging counterparts. We also installed lights, powered garage doors, and furnished a meeting room for employees, volunteers and our youth crew. With these changes, the garage has become the nucleus of our field crew's operations (and a comfortable one, at that).

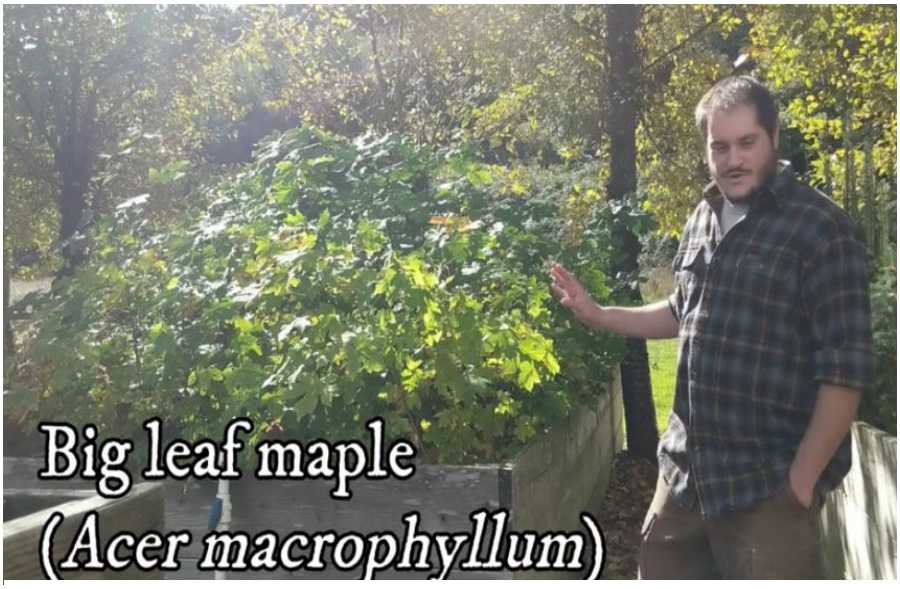
We also substantially expanded our nursery operations, starting with planting two new fenced areas – one filled with native shrubs, and one to be filled with native grasses and wildflowers. Once mature, these areas will supply CoosWA and our partners with an ample and renewable supply of, locally-adapted plant material. To support this expansion, we also doubled our water storage capacity and installed an irrigation system to partially automate our watering regime.

In the end, it was a highly productive year for the nursery. We grew nearly 20,000 trees and shrubs for local restoration projects, which is our maximum production capacity. This included 27 species – the most diverse suite we've ever offered.

We also made a video in 2021 that focuses on the value of native plants (specifically riparian species), features our native plant nursery, and includes interviews with staff from Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians and Coos Watershed Association. Check it out here: https://youtu.be/7MrmSBzTFFs. You can also watch all our other videos on the CoosWA YouTube page: https://www.youtube.com/channel/UCAzhm6gVUPJ_1WAOzk7bKCw/videos.

CoosWA purchased a new crew truck in 2021, vital to daily watershed operations, using fundraised dollars from 2020.

Matson Creek Native Plant Nursery garage, midway through 2021 remodel.



Ed Cope, CoosWA's Plant Programs Manager, stars in the "Native Plant Ecosystems of the South Coast" video produced by CoosWA in 2021. Full link to watch it: https://youtu.be/7MrmSBzTFFs

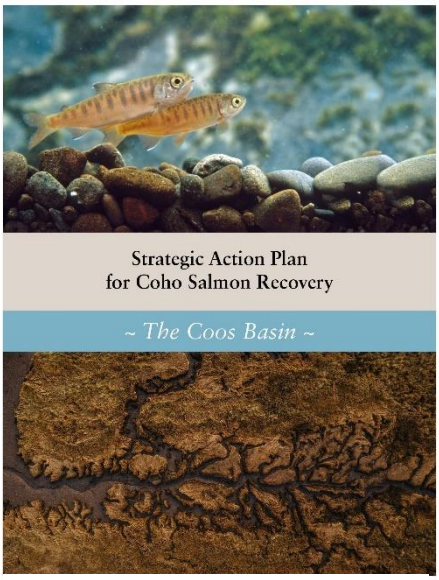
Matson Creek Nursery garage, remodel complete.

Science & Monitoring Highlights

Tide Gates and Coos River Coho Strategic Plan

In 2021, CoosWA continued working with a team of tide gate specialists to develop a Pipe Sizing Tool that will help landowners determine the size of culvert needed for small tide gate replacement projects. When completed, this tool will be available for tidal restoration practitioners and landowners coast-wide in late 2022. The Oregon Tide gate Partnership continues to work on improving the permitting process and complete the statewide tide gate inventory. We encourage you to follow the group's progress here: https://oregontidegates.org/.

We also completed the four-year process of developing the Coos Basin Strategic Action Plan for Coho Salmon Recovery (SAP) with the Wild Salmon Center (WSC). This project prioritized the areas and restoration actions most needed to improve coho salmon productivity within the Coos Basin over the next 25 years. CoosWA led a rigorous study of robust datasets and expert opinions that identified high priority restoration actions. This process focused on what WSC calls "Anchor Habitat," areas defined as supporting both coho spawning and rearing. The Coos Basin Coho Partnership that resulted from the SAP (comprised of over 15 agencies, organizations, and tribes!) also submitted an OWEB Focused Investment Partnership (FIP) application that would streamline the funding process for restoration, monitoring and outreach activities over the next six years. The SAP and Partnership is a formal plan and agreement that will be instrumental for collaboration and resources to plan and implement priority restoration projects within the Coos Basin.



Cover page for the Coos Basin Strategic Action Plan for Coho Salmon Recovery. The full document will be available in the spring of 2022.

Lastly, we completed the third year of the Coos-Coquille Comprehensive Tide Gate Project that we started in 2019 in partnership with the Coquille Watershed Association and Coos Soil and Water Conservation District. Together, we are providing info and resources to landowners who are navigating the challenging process of tide gate repairs and replacements. Collectively, we spent 154 hours engaging seven new landowners in tide gate conversations in 2021, and brought in approximately $1.4 million of Business Oregon funding to Coos County for tide gate planning and construction.

Life Cycle Monitoring Program

2021 was the 17th year of the CoosWA Coho Life Cycle Monitoring (LCM) program, which contributes to the greater understanding of juvenile coho salmon use of estuaries and their migratory path as they rear in freshwater and tidal environments. This program runs every month of the year, and we rely on different tracking and trapping techniques depending on the season and life stage being targeted.

We had another successful year of tracking coho on Willanch and Palouse Creeks, two tide-gated, lowland streams. Our team conducted spawning surveys every seven to ten days from October to February, observing 98 coho in Willanch Creek and 736 in Palouse. This year's count was above average for the 17-year study period and one of the top five return years in that time frame.

LCM crew scans coho carcasses for PIT tags during spawning surveys on Palouse Creek.

Science & Monitoring Highlights continued

During the rest of the year, our team identified, counted, weighed, measured, and marked coho salmon with individual PIT tags to help us track their movement, using methods such as seining (summer) and Rotary Screw Traps (winter and spring).

We hosted four LCM interns in 2021: two from Southwestern Oregon Community College and two high school students from the American Fisheries Society's Hutton Junior Fisheries Biology Program (hosted locally by the Coos Bay Bureau of Land Management). We are deeply grateful for the 56 interns who have supported the LCM program since 2012!

Rotary screw traps being set up on Palouse (left) and Willanch (right) Creeks.

Hydrology and Stream Gauges

CoosWA operates and maintains seven stream gauges in and around the Coos Basin (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). This information is utilized by a variety of stakeholders via our website, where real-time stream data are uploaded every 15 minutes for public use (http://streamdata.cooswatershed.org/).

In October 2021, we secured another OWEB Monitoring grant, which will give us the funds to continue gauge operations through 2023. We also worked with the two Hutton interns who were part of our Life Cycle Monitoring program (see above); during their time in the hydrology program, we taught them about stream gauges and how to measure streamflow in Tioga Creek.

Interns are vital to CoosWA monitoring programs. *Left:* Hutton Junior Fisheries Biology Program interns measure stream flow. *Right:* SWOCC intern conducts coho spawning surveys.

Outreach & Education Highlights

Destinations Academy students construct four raised beds to create a school garden.

Red flowering currant, one of eight native plant species added to Marshfield High School landscape.

Youth Engagement

We focused on two primary projects during our school-year "Conservation Stewardship Corps" Oregon Youth Corps (OYC) program. At Marshfield High, service club students built a manor stone wall, planted native plants, and created wildlife microhabitat in front of the school. At Milner Crest, Destinations Academy students constructed raised beds to start a school garden and outdoor classroom. Between the two projects, students planted over 80 plants, representing eight species native to our region, and improved the ecological health of their campuses.

This was also our 10th year of hosting a Summer Conservation Corps crew through OYC, and we were able to hire five youth (up from two in 2020). The crew spent the summer working on habitat restoration and maintenance projects all over the watershed, including installing fence lines along Catching Creek, pulling invasive species at Bastendorff Beach, maintaining riparian plantings on five project sites, and helping with nursery upkeep.

Community events

We celebrated the 5th annual Mayfly Festival in 2021, and while it wasn't the big party we'd always pictured having for year five, we made it special by creating a Mayfly Festival Activity Booklet, a 28-page self-guided adventure pack for families interested in exploring and learning about the Coos watershed. Many of the community organizations who have led a booth at the Mayfly Festival booth in past years contributed an activity to the booklet, and we were still able to keep the event's community engagement and connection themes without gathering in person. For more info on the booklet, and to download your own copy, visit https://coosmayflyfestival.weebly.com/.

First-ever Mayfly Festival Activity Booklet to celebrate 2021 event.

CoosWA board member & County Commissioner John Sweet cleans up rain garden between Coos History Museum & 7 Devils Waterfront Alehouse.

Volunteers release trees from ivy's grasp at Ferry Road and Mingus Park.

To celebrate our birthday, we hosted a 27th birthday bash fundraiser and invasive species challenge. Over the course of a week in October, 54 people (community members and CoosWA staff/board) contributed 147 hours to reducing the invasive species populations at two local parks and the Coos History Museum property. In addition to the great volunteer support, we'd also like to thank the donors and event sponsors who helped us raise over $23,000 during this year's fundraiser! These fundraised dollars give us the flexibility to make crucial purchases that are not part of our grants, such as a new vehicle in 2021 that serves all of our programs (see Nursery update above).

The annual Teddy Villers Natural Resources scholarship honors the life of Teddy Villers (Oct. 7, 2004 – Sept. 4, 2015).

Teddy Villers Natural Resources Scholarship

In 2021, the Villers Family of Blue Ridge Timber Company and the Coos Watershed Association offered the 5th annual Teddy Villers Natural Resources scholarship. This award honors the life of Teddy Villers, son of Mark and Adela Villers, who lost his life while working on a salmon habitat restoration project with his dad in September 2015. Teddy had a strong curiosity and deep passion for the natural world. From a young age, he 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 passion for and commitment to pursuing post-secondary education in the field of natural resources.

Abby Richards, recipient of the 2021 Teddy Villers Natural Resource Scholarship.

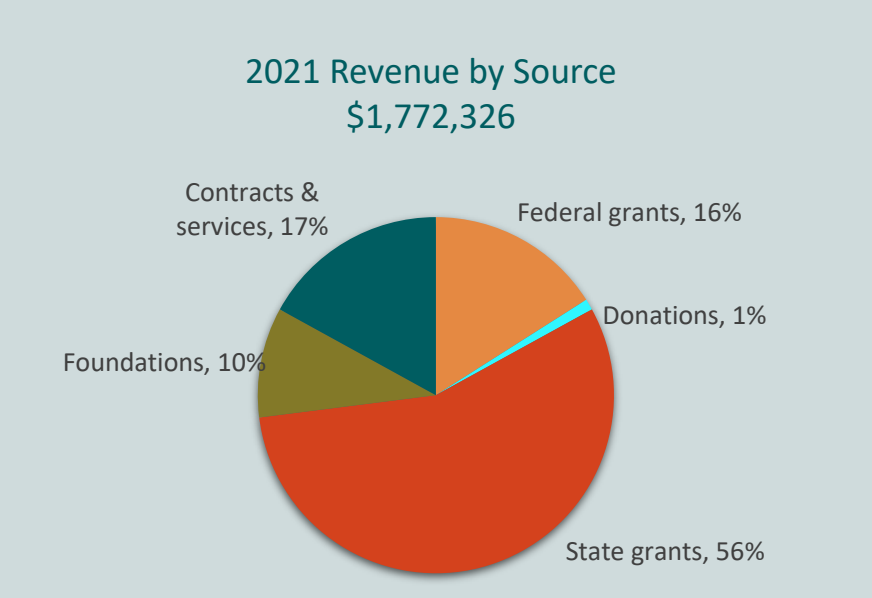
We were pleased to award the 2021 scholarship to Abby Richards, a SWOCC graduate planning to study Fisheries and Wildlife at OSU. Previous recipients of this award include Alissa McCord (2020), Melanie Cavanagh (2019), Cole Michael Smith (2018), and Jamie Decker (2017).

Financial Report for Fiscal Year 2021

Statement of Activities

for the year ending December 2021

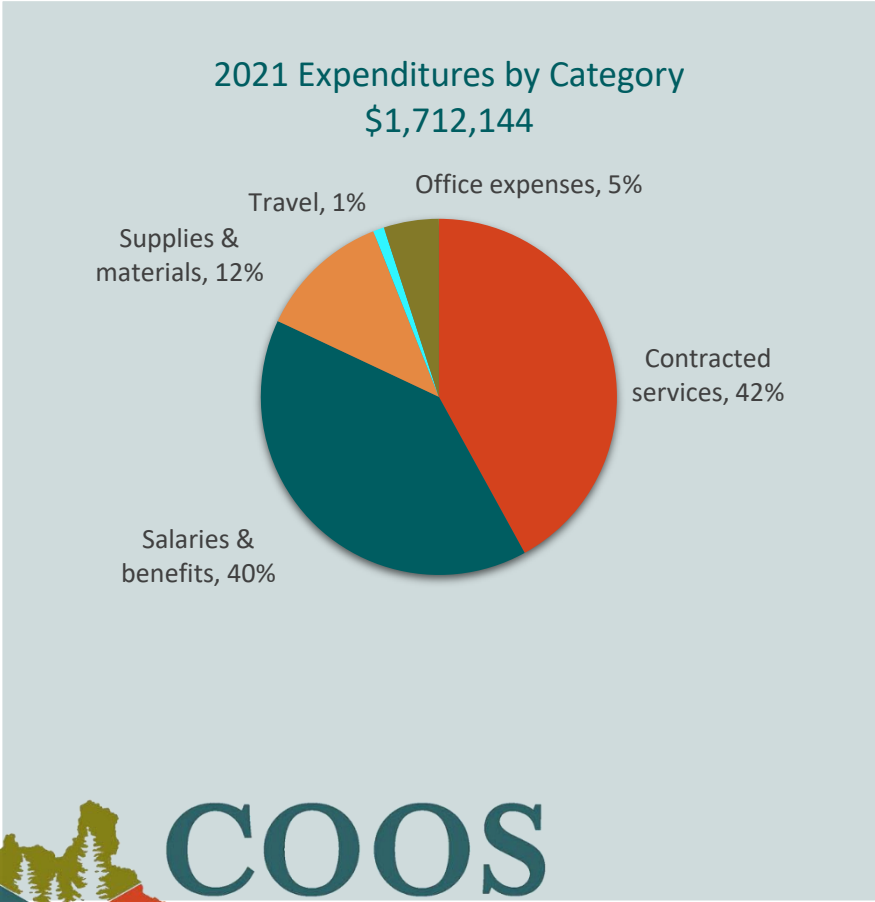
Revenues	
Grants	$1,269,958
Contributions	$20,913
Other income	$481,455
Total revenue	$1,772,326
Expenses	
Program services	$1,535,672
Support services	$176,472
Total expenses	$1,712,144
Net assets, beginning of year	$803,171
Net assets, end of year	$576,934
Change in assets	$226,237



Statement of Financial Position

December 31, 2021

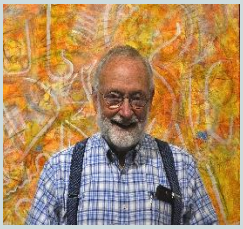
Assets	
Cash and cash equivalents	$160,854
Grants receivable	$374,002
Other assets	$42,890
Office and field equipment	$128,750
(less accumulated depreciation)	<129,652>
Total assets	$576,934
Liabilities	
Accounts payable	$96,232
Accrued payroll taxes and benefits	$75,809
Accrued leave	$20,387
Deferred grant advances	$64,758
Total liabilities	$257,186
Equity	
Restricted	$34,642
Unrestricted	$285,106
Total equity	$319,748
Total liabilities and equity	$576,934



COOS Watershed Association

Special Thanks

Over the past 27 years, the Association has had the pleasure of employing over 200 people, and welcoming 85 community members representing a wide variety of stakeholders to serve on our Board of Directors. Board members go above and beyond to guide and support the Association, through regular board meetings, committees, planning sessions, and volunteer events. Two current board members reached important milestones in 2021:



Al Solomon – *Celebrating 10 years with the Association, since 2011*

Allen Solomon fills a "member-at-large" role on our board, bringing with him a wealth of knowledge and experience. Al retired as National Program Leader for Global Change Research in the US Forest Service in 2009. In his career as a plant ecologist, he studied vegetation responses to climate change, and held senior scientist positions with the US Environmental Protection Agency, the White House Office of Science and Technology Policy, Oak Ridge National Laboratory, and the International Institute for Applied Systems Analysis in Vienna, Austria. In addition to 90+ research publications and many other prestigious accomplishments, he was a contributor to the 2007 Nobel Peace Prize awarded to the Intergovernmental Panel on Climate Change. We are grateful for the support and perspective he has brought to CoosWA in his ten years as a board member.

Joe Metzler – *Celebrating 5 years with the Association, since 2016*

Joe represents the Cape Arago Audubon Society on our board. He is a retired U.S. Coast Guard Helicopter Rescue Swimmer who now works for various fish and wildlife agencies, such as the Oregon Department of Fish and Wildlife and USDA APHIS/Wildlife Services. Joe has been an active participant and supporter of our community engagement activities, such as the annual Coos Watershed Mayfly Festival, and is an especially engaging mentor for youth in our watershed stewardship programs. We are grateful for his enthusiasm and support over the last five years!

Thank you

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 2021 was a great year for the watershed. We look forward to working with you again next year!

Looking ahead to our 28th year

2022 is our 28th year! Despite pandemic-related unknowns, we remain excited to celebrate our beautiful watershed and look forward to more great projects with YOU! Keep an eye out for the following events in 2022:

- 6th annual Mayfly Festival
- 28th Birthday Bash Fundraiser

To learn more about these events and other upcoming opportunities, choose from any of the following: sign up for our email list to receive our quarterly newsletter (https://cooswatershed.org/#subscribe), visit our website and social media pages, give us a call, or shoot us an email. We look forward to hearing from you!

Sincerely,

The CoosWA board and staff

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COOS Watershed Association

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