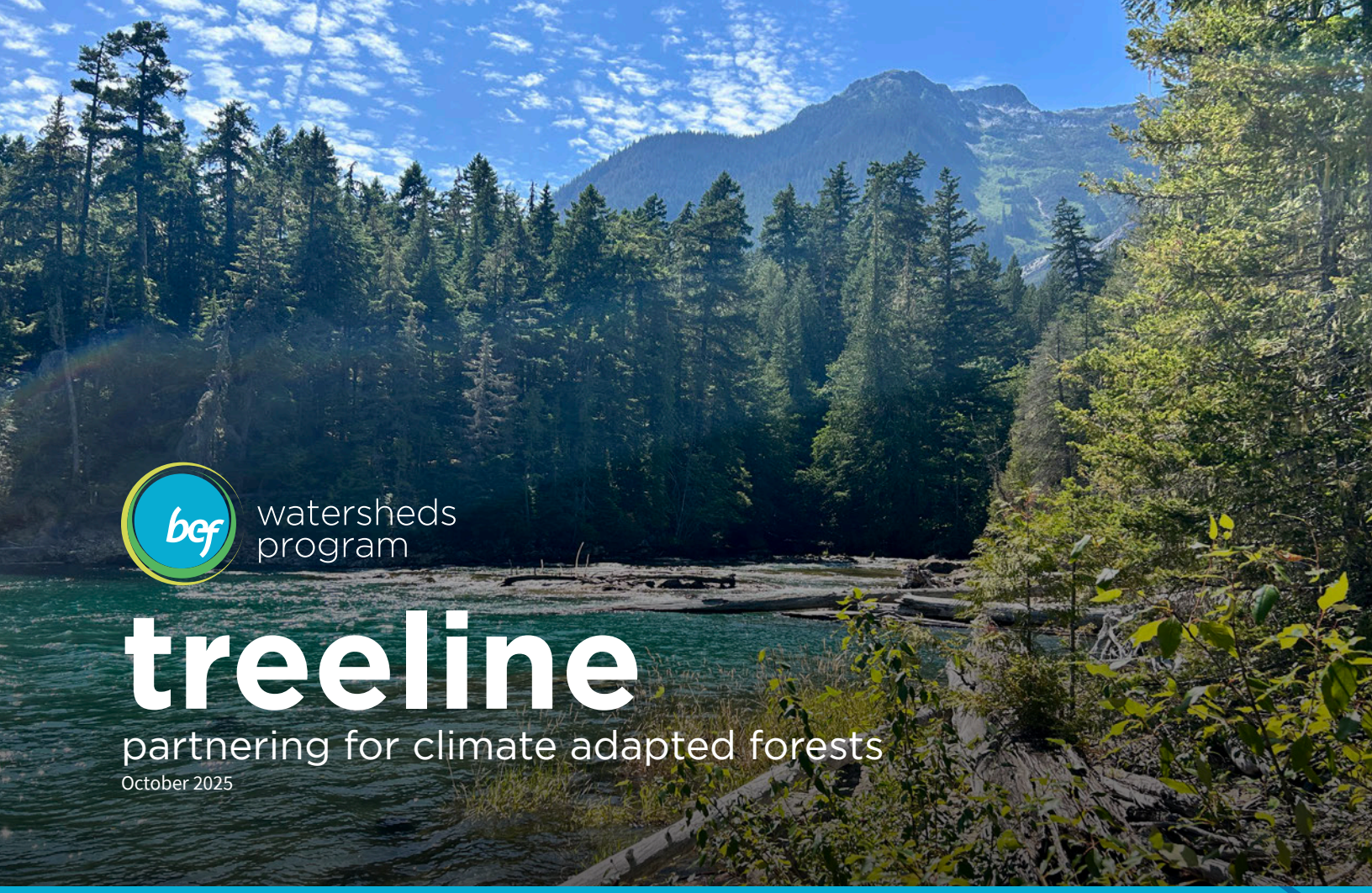

watersheds program

treeline

partnering for climate adapted forests

October 2025

treeline is an information and storytelling hub for Pacific Northwest restoration practitioners, nursery partners and researchers who work for or represent Tribes, Indigenous groups, non-profits, agencies, landowners, businesses and more.

The Disruptions Issue

This issue of treeline explores how system wide disruptions are affecting coalitions of NGOs, agencies, universities, businesses and more who work across various facets of ecological restoration.

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Impacts of AmeriCorps Funding Cuts to Organizations and Communities

Interviews Conducted by Kayla Seaforth

In April 2025, the federal government announced its intention to terminate nearly $400 million in federal AmeriCorps grant funding and cut federal staff. AmeriCorps is a national service program that connects students, veterans, and other adults with service and training opportunities in environmental stewardship, education, public health, eldercare, disaster response and recovery. In the 2024-2025 service year, 26,400 AmeriCorps members served Washington, Oregon, Idaho, and California.

In June, **legal action** led by 23 states and the District of Columbia resulted in the restoration of FY24 AmeriCorps funding for the states involved in the lawsuit, including Oregon, Washington and California. In early July, **additional legal action** resulted in a judge ordering the reinstatement of federal staff.

States not party to the June lawsuit have not had funding restored. After initially releasing a statement that The Office of Management and Budget would withhold all FY25 AmeriCorps funds, grantees were notified in late August that these funds would be distributed after all. At the time of this writing, the program's FY26 budget is in question. The House Appropriations Committee has passed a budget that cut AmeriCorps' budget in half from the previous year, although this relies upon Congress passing a spending bill in order to take effect.

The AmeriCorps program provides critical capacity and training that builds the restoration workforce. In the interviews below, we highlight insights from people in Washington State who mentor and rely upon the work of AmeriCorps Volunteers.

The Washington Conservation Corps crew serving the Tulalip Tribes do critical habitat enhancement and monitoring work in a learning environment. Photo Credit: Austin Richard

Timeline:

APRIL 25: federal AmeriCorps cuts announced and programs were directed to immediately terminate programming

APRIL 29: 24 state Attorneys General, led by the state of Maryland, filed suit (State of Maryland v. CNCS) against the federal government to challenge the cuts and immediately stop the closure of programs in plaintiff states

MAY 5: A coalition of non-profits filed another motion for preliminary injunction in Elev8 Baltimore et al v. CNCS

JUNE 5: U.S. District Court in Maryland issued a preliminary injunction in State of Maryland v. CNCS, allowing previously planned work to continue in plaintiff states

JUNE 7: According to **this article**, AmeriCorps issued a memo offering back pay and credit for service time missed due to the termination to all members

JULY 7: U.S. District Court for Maryland granted preliminary injunction in Elev8 et. al. v. CNCS, reinstating terminated employees and programming, and preventing further termination notifications

Austin Richard, Stewardship Ecologist at The Tulalip Tribes

KAYLA: How do AmeriCorps members contribute to your work in environmental restoration and stewardship?

AUSTIN: Our Restoration, Acquisition and Stewardship Department at The Tulalip Tribes has hired a year round Washington Conservation Corps (WCC) crew annually since 2021. We love the flexibility that this model provides to get a lot of different kinds of work done, and respond to time sensitive needs as they come up. We also try to provide a lot of diversity in work for the crew to appeal to the varied interests of the crew members, and allow them to get experience doing different things. They are really important to our restoration work, and put in plenty of time removing invasive species, but have also done things like wetland surveys, beaver habitat restoration, culvert inventory and analysis, and more.

As helpful as the WCC crew is to getting work done on the ground, we also recognize that this program is a way for young adults to get experience and exposure to different areas of natural resource management, and so we want to help provide as many pathways for that learning as we can.

KS: Can you share how these cuts have impacted your WCC crew and the work they do?

AR: One of the first things that it affected, that was very apparent, was crew morale and confidence in the system. Tulalip sponsors a WCC crew consisting of a group of 5 crew members, ages ranging from 18-25, who are just getting their foot in the door of the environmental field. The AmeriCorps funding cuts came with a lot of confusion and uncertainty. The first couple weeks after the cuts came, the crew didn't know if the entire WCC program was going to be shut down or not. The AmeriCorps funds were also used to provide WCC members with Segal AmeriCorps Education Awards after crew members successfully completed their term. These Ed awards could be used to pay off student loans, receive continuing education credits, and take classes/courses from Title IV establishments.

So with the AmeriCorps cuts came a lot of immediate anxiety and uncertainty. The crew members initially believed they weren't going to receive their education awards and with the already low stipend they were receiving, this led to one of our crew members ending their term early in pursuit of a higher paying job. Ultimately, the increased rates charged to sponsors like Tulalip allowed the program to supplement the education awards promised to crew members, but this led to us having to pay more.

One secondary impact that this is having is a shift in how these folks, early on in their careers, view potential employment pathways, particularly those with federal agencies. After an AmeriCorps term in California, I got my start in this field through a series of seasonal jobs at different federal agencies before landing in this permanent position at the Tulalip Tribes. With the changes currently underway, that is looking less and less possible for people just getting started working in conservation.

KS: Have you made budgetary and program delivery changes, and can you describe those changes and their impacts to the Tulalip Tribes and the communities you serve?

AR: With the funding cuts, Tulalip and the Department of Ecology had to amend our agreements to remove reference to any AmeriCorps funds and increase the weekly costs of the crew to make up the lost AmeriCorps funding for the remainder of the 2024-2025 season. For the 2025-2026 crew season the daily costs jumped from $1385/day in 24-25 to $1540/day for the upcoming 25-26 season.

On a related note, Ecology started up an Environmental Justice (EJ) Program a couple years ago that covered some week's expenses. In 2024-2025, WCC provided 18 weeks of service to Tulalip for no charge under the EJ program. However, because of the AmeriCorps cuts and increased crew costs, more sponsors requested these EJ funds and for the 2025-2026 season Tulalip is only going to be receiving 9 weeks of WCC service under this program.

So, ultimately, the AmeriCorps funding cuts led to Tulalip having to bear more of the costs of sponsoring our WCC crew and led to our crew members feeling underappreciated and anxious about pursuing a career in the environmental sector.

We have grant funding through a number of different funders, so ultimately we are able to cobble these together in a way that allows us to shoulder the higher crew cost. This, of course, comes with more administrative work to alter budgets and shift money around, and makes some work more constrained due to some funding that is tied to specific sites or projects.

In light of the changes, and potential continued future uncertainty regarding AmeriCorps, we are also reaching out to more private contractors to build those relationships and see where we can supplement the work of the WCC with private sector labor. This is an area that needs some development since the contractor pool is fairly limited to accomplish all that we and our regional partners have planned.

In addition to these changes, further uncertainty regarding other federal funding has led to more planning difficulties. We were previously awarded funding by NOAA for fish passage inventory and analysis, and just applied for another grant from them to continue this work, in collaboration with a number of municipalities. The funding outlook for some grant applications we submitted is unclear, and we're continuing to apply for a diverse range of grants to ensure we secure funding for restoration projects into the future.

The 2024-25 crew that served with the Tulalip Tribes. Photo Credit: Austin Richard

Rebecca Rising, Riparian Project Manager at Skagit Fisheries Enhancement Group

KAYLA: Can you tell me about the AmeriCorps positions that Skagit Fisheries Enhancement Group (SFEG) supports? How many members do you employ and what do they do for the organization?

REBECCA: We work with a Washington Conservation Corps (WCC) crew, and there are five which includes AmeriCorps members, and they are out there on the ground, and they're doing manual labor, primarily. From October to June they plant out riparian restoration projects, maintain them and control weeds across the sites that we steward. During the summer they transition to knotweed control in support of our watershed's eradication plan. The WCC has been able to continue programming through the uncertainty, which has allowed us to continue work as planned.

KS: How do you plan to backfill the work that the WCC crew was scheduled to complete?

RR: Since the WCC functions as a cost-share, we can use the money that we typically spend to cover their time to hire members as seasonal technicians to do the same work. We've already budgeted for the daily crew costs, but if we go this route, we likely won't be able to provide all of the things that they would get under the WCC AmeriCorps program. We're not giving them an educational stipend, we're not giving them health insurance, we're not giving them those types of support benefits. We would pay them an hourly wage that is higher than their current stipend, but they'd lose all of the other benefits that they currently get through the AmeriCorps program.

There are also drawbacks for us organizationally. This was an unexpected change and we've wasted a lot of time trying to figure out how to adjust our plans. We already have a full schedule with project work and planning, and this was a major disruption that distracted us from our day to day operations.

KS: SFEG also hires Washington Service Corps (WSC) members, right? How are you dealing with the loss of those positions?

RR: We have two different WSC positions, a restoration associate, and another focused on education and outreach. The education and outreach position manages two programs: a service focused program called Kids in Creeks and an educational program called Salmon in Schools where she teaches schoolkids about the salmon lifecycle and leads them in raising salmon eggs and eventually releasing them in a local creek. She also attends a bunch of outreach events and works with community members.

This year, the restoration associate coordinated the salmon spawner volunteer effort which was almost a full time job. Not only did he organize all 52 of our volunteers, but he had to make sure everybody has gear and knows where they're going, monitor weather changes, changes in creek flow, and people, landowners, the whole deal. He also wrote a report summarizing the findings of the spawner surveys in coordination with a student at Bellingham Technical College. Our restoration associate is also tasked with working in our native plant nursery and managing volunteers who help with that part of our program. In addition, each summer we offer two vegetation monitoring internships, and the Restoration Associate coordinates that effort and manages those interns as well.

Since the cuts were announced, we have been able to offer the former WSC AmeriCorps members 1-year staff positions to perform many of the same duties they did in their previous positions. With so much funding uncertainty in the system currently, we cannot commit to making these permanent positions at this point. However, due to the instability we have observed in Washington Service Corps, we have decided not to work with them next year.

KS: Can you share more about how this is impacting these members in the near term?

WCC Lower Elwha Klallam Tribe spawner survey. Photo Credit: Kiahlee Brown

WCC Peabody Creek bridge replacement. Photo Credit: Mari Johnson

RR: Their service term was scheduled to end in July, but as it turns out, both of the WSC members wanted to sign on for another year. We were glad that they wanted to stay on and continue to share the expertise they've developed, but unfortunately that's not an option anymore. They like what they're doing. They're getting lots of experience doing varied tasks, and they're working in roles that are similar to managers or coordinators, so they are gaining really valuable experience. I think at least from my perspective, that it's actually almost good, in a way, for us to be pushed as an organization to elevate these to staff positions, especially for these folks who would be coming in already knowing the ins and outs of the positions. In a typical year, when we would normally be re-hiring the positions annually, this would cause more of a scramble, but this situation is forcing us to look critically at the value of the positions and transition them to temporary staff positions.

In the immediate term, these folks were hired by Skagit Watershed Council to complete their term.

KS: It's clear that these AmeriCorps members mean so much to SFEG. Can you share some of the ways these changes are affecting the communities you work with more broadly?

RR: We haven't lost the functionality yet with volunteer opportunities, but that's definitely on the line for any of our volunteer programs, since our AmeriCorps members play a huge role in supporting these. We host an annual Earth Day planting party, and they organize that whole thing. If we didn't have them, things like that would go away since we don't have the capacity to put on an event like that with our other things that we have going on. We're also leaning on our community more for support through donations to support things like the Salmon in Schools program.

KS: What do you think some of the long term impacts of these cuts will be?

RR: I'm concerned about the loss of opportunities for people who are early in their careers and looking to get their foot in the door. In the natural resources field, these internships are key stepping stones that are built into our system. It's expected that a person coming in has some level of field experience or other kind of environmental management experience before they get a full time paid position. The ability to mentor new people in a diversity of job skills is really cool, and I'm worried about how the loss of these positions across the system will impact people getting started in the field.

KS: This creates such a domino effect, doesn't it? You can fill in some immediate gaps through support from private donors or partner organizations, but that leads to further shuffling of resources and more questions to answer. What are some of those downstream effects that you see coming as a result of the AmeriCorps cuts?

RR: I think the positive side of that story is seeing how folks come together in the face of major disruptions. Sometimes, when people face pressures, they get together and they figure it out. Other times, when there's pressure, it causes conflict. In this instance, through conversation with our partners at the Skagit Watershed Council, we identified that they had some flexibility to provide funding to allow our WSC members to continue with their near term work. I'm not sure how that affects things long term, but it's a testament to the flexibility and strength that robust partnerships can bring.

In terms of how the loss of the AmeriCorps positions will affect our work, I think that we are at risk of losing the Kids in Creeks program next year. We've lost some other funding on top of this, so combined with like other losses, I think we're just going to have to look really critically and decide which things we can keep and which things we can't, and we don't really know what those are yet. We're trying to make clear, informed decisions in the middle of not knowing exactly what the future funding situations will be. I'm trying to tighten up the things that we are doing by focusing on efficiency and trying to do as much as we can with the staff that we have. I think that sometimes in natural resources work sometimes there is a tendency to try to do projects with as little money as possible, and so when we lose one element of the system like our AmeriCorps workforce, it makes it even more difficult to accomplish what we set out to do.

WCC North Cascades National Park spike. Photo Credit: Erika Courtney

Overall, the impacts of the cuts are going to be significant, even if we can't predict exactly what they will be. We will have less connection with kids in schools, fewer opportunities for volunteers to connect with conservation lands, and possibly fewer or smaller salmon recovery projects implemented overall.

KS: Thank you for sharing the ways that these cuts are impacting your organization and the people that you're working with. It's obviously creating a bit of chaos in the restoration system, but I'm hopeful that through strong networks and re-evaluation of what can feasibly get done with available resources we can collectively figure out how to move forward.


WCC members contribute to habitat restoration in many ways, from invasive species removal (left), to planting riparian sites (middle and right), and more. All photos courtesy of Eva Copely

Eva Copely, Washington Conservation Corps member

KAYLA: What has your time as an AmeriCorps member meant to you?

EVA: The WCC acted as a stepping stone when I was feeling directionless. A few years out of college and feeling stuck in the restaurant I was in, I needed something that provided me with purpose and the ability to move forward. I had been trying to save for continuing my education but was having a difficult time doing so. When I heard about the WCC, I was thrilled about the opportunity to a) give back to my community and to the earth and b) to earn an educational award to help me kickstart my goal of more school and to help me with my loan payments. While I have always known I wanted to pursue further schooling, I was still unsure about what exactly I was looking for. I signed up for the Wilderness First Responder course for our two training weeks and it was so amazing. I got to learn from incredible and experienced instructors through Aerie Backcountry Medicine and earn my WFR certificate. Additionally, I learned that Aerie matches Americorps education awards and I finally knew what I was going to pursue with my award. In the fall, I will be completing my EMT course with Aerie and I am so excited. This would not have been possible if it weren't for the training opportunity and the award money. On another note, I have learned so much about restoration and ecology and am able to positively give back to the planet when she really needs it. I have learned how to use and maintain a variety of tools, implemented many techniques of restoration, basic operation of ArcGIS since I have been injured, and so much more. We have participated in community events and work parties. I have also gotten to know and work with the best people. The WCC is a really special program and despite the chaos this year has brought, I am eternally grateful for the opportunity.

KS: How have the attempts to eliminate AmeriCorps programs affected you personally?

EC: The Americorps elimination was sudden and jarring. I was willing to accept and adjust to the pay decrease when I first took the WCC position as I knew that the educational award would be worth it in the end. When the award was prorated and ripped out from under us with absolutely no notice, it was infuriating. Getting a little more than half of what I signed on for was very disheartening. We all essentially took a pay cut in a position where pay is already very low. For such hard and important work to be deemed as "governmental waste" felt like a slap to the face. It was dismissing the vitality of our work and the fact that many members made sacrifices in order to set up our future selves. I have had to adjust my loan payment plans and the amount of courses I will actually be able to take with the lessened amount.

Jill Silver, Executive Director of 10,000 Years Institute

KAYLA: I'm curious about how these past several months of funding changes and cuts to AmeriCorps have impacted your program. Since you work with both the Washington Conservation Corps and local crews, how has this affected your work?

JILL: Many of the agencies that operate on the Peninsula experienced a sudden and unexpected loss of federal and state funding this year, which forced them to let go of the weeks they had contracted to hire WCC crews through AmeriCorps. This made the crews available to us, and we gladly deployed them on acres and miles of work as close as possible to their home 'hub' to limit travel time and also loaned them back for some weeks to the agencies to do the work they had originally planned to do—because the work won't get done without the crews to do it! We want to see their river restoration projects succeed, and we support it through coordinated partnerships, all working across the watersheds, taking on different aspects of the restoration needed.

We typically have enough budget for 78 weeks of crew time per year but last year, we were able to contract only five weeks of crew time, due to crew needs for other resource managers on the Peninsula, and also that simply weren't enough crews to fill the need. We also hired a project coordinator who lost an AmeriCorps position!

Both our local crews and our WCC crews conduct watershed-wide invasive plant prevention and control on federal, state, and county, and some tribal and private lands in three counties on the coast of the Olympic Peninsula. This work supports biodiversity, forests and fish in healthy watersheds—providing space, water, and food webs from native plants. Our annual workforce budget is $500,000 to $600,000. We are committed to creating local jobs, hire locally, to train folks who want to work where they live. We're also hoping to develop a place-based permanent, year-round, non-competitively funded program called the Community Conservation Corps, modeled after the 1930's Civilian Conservation Corps. We haven't yet gained permanent funding, so we utilize grants and other sources to pay for crew time to do the invasives, biochar, forest thinning, and other restoration work we are committed to. Besides sharing with partners who need crew time, we train the WCC crews who work with us in the same skillsets. Recently, our crews and one of the WCC crews worked with Pacific Coast Salmon Coalition to construct beaver dam analogs (BDAs) in our north coast area, and the south WCC crew has been donated to work in the south coast with partners on purple loosestrife and knotweed.

To learn more about 10,000 Years Institute's year-round, placed based crew model, see **this article**, featured in a past issue of treeline.

Utilizing WCC as a significant part of our labor force in the remote rural area where we are active has many drawbacks. WCC members tend to come from cities far away and end up moving to areas in and around Port Angeles where housing is more accessible. This leads to both a lack of local connection and high daily travel times (2-5 hours), which impacts overall productivity. Crew members don't often stay in the area beyond the 1-2 years of their term, which leads to low transfer rates to other permanent resource management jobs. Our proposal for the Community Conservation Corps includes significant funding for housing hubs to address some of these issues and provide more safe and stable housing for those getting started working in this field.

KS: Given some of the challenges you've shared related to housing for shorter-term workers and other issues, how do you think the uncertainty around AmeriCorps's status and the associated benefits to members will affect recruitment and program viability?

JS: We don't see a lot of local applicants for the WCC, and last year, I heard from the higher level managers that they just couldn't get anyone in the Port Townsend, Chimacum, Irondale, East Jefferson County area. They had to get the crew from Port Angeles because there weren't enough people who lived there that wanted to join. I am hopeful that the Natural Resources program that started around a year ago at Peninsula College in Forks, which we helped develop, will start building up a local workforce. We already have one, but looking forward to more students will be coming out of that program, coming straight to us who have housing here already because they're from here. We're getting interns from local colleges, which is rewarding.

KS: What is your typical breakdown of work completed by WCC vs. 10KYI local crews in a year?

JS: It varies year-to-year. In 2024, we only had five weeks of WCC crew up north, and five weeks down south. So our crews did around 80% of the work, and they did 20% of the work. This year the WCC will be doing 40% of the work in watersheds close to their hubs. We have new project areas that we've been working in, and we will be deploying them in new watersheds that they haven't been in before.

Josiah Downey, Interim Director for Washington Conservation Corps

KAYLA: How did you respond when the news of the federal AmeriCorps cuts broke?

JOSIAH: We first learned that the National Civilian Community Corps (NCCC) program had been terminated in early April, which put us on alert, though this did not affect our members directly. We received formal notice of termination of AmeriCorps grants in late April, and our first priority was securing continuity funding to keep our members in their

WCC Debris removal at Gingko Petrified State Park. Photo Credit: Sam McClintic

positions. The Department of Ecology was able to provide this funding, so we continued operations as planned.

With the immediate funding needs met, we went into information management and sharing mode. We have tried our best to seek out and share the most accurate information with members and partner organizations to keep our members and partners informed, we sent regular newsletter updates, and hosted multiple full corps Q&A sessions.

In April, Washington Attorney General, Nick Brown, signed onto a multistate lawsuit challenging the actions by the federal government, and an injunction was granted in that case on June 5th. Since then, we have been working to implement the terms of the injunction, which has allowed our members to regain access to their education awards, loan forbearance, and maintain their qualifications for state provided food benefits.

Moving from immediate response to the next stage of planning meant navigating increased costs due to the loss of AmeriCorps funding. To cover these cost increases and to provide a modest stipend increase for members, we identified we would need to increase the rates we charge our partners. We implemented this increase in July and are moving forward with these increased rates for the 2025-2026 service term.

KS: Besides the rate increase to partners, how will the program look different in the next year?

JD: We will continue providing high-quality services that support environmental restoration, recreation access, and disaster response to our partners. We are going to shrink slightly and will have 20 fewer member positions than last year. Partner rate increases, in combination with some partners losing access to other funding sources means some partners will be working with crews for fewer weeks than they would have otherwise. The good news is, we are also bringing on several new partners to provide more diverse opportunities for our members. We are also still able to offer environmental justice crew time to eligible partners, which provides crew services at no charge for communities which need them most.

KS: It's great that you're able to keep the doors open, so to speak, for the upcoming year. I'm curious how you are thinking about a long term strategy in light of the uncertainty that has been sown over the past several months in regard to the WCC's partnership with AmeriCorps?

JD: We are always working on contingency planning. It's great that our partnership with AmeriCorps has lasted as long as it has, but we are considering how WCC might continue if federal cuts to AmeriCorps persist. WCC existed independent of AmeriCorps funding in the pastI think, if necessary, we could return to that structure. Our highest aim is to continue to be a robust resource for Washington conservation partners and a career pathway for members.

As we think about this possibility, we are keenly aware of the need to diversify our funding sources. We are open to working with private foundations or other donors who want to help support this important work.

KS: Thanks for sharing this update, and for your work to keep the WCC operational through an incredibly challenging few months.

Photo Credit: Austin Richard

Pest to Watch: Mediterranean Oak Borer

By Kayla Seaforth, Scientific Review by Christine Buhl, Oregon Department of Forestry

Oak woodlands and prairie, once a defining ecosystem of the Pacific Northwest lowlands, have declined by an estimated 90% from historic land cover. Conversion for agriculture and urban development in combination with fire suppression have led to the demise of this extremely productive habitat.

The Mediterranean Oak Borer (MOB) is a species of ambrosia beetle that is native to parts of Europe, western Asia, and Northern Africa. In 2017, scientists found the first known population of the beetle in California, and by 2019 it had spread throughout Central California and was also found in the Willamette Valley.

In its native range it infests weakened or dying oak and beech tree species that are already suffering from drought, other pests, or disease. MOB may be particularly harmful to white oaks in the United States, including Garry/Oregon white oak (Quercus garryana). These beetles have a symbiotic relationship with several species of fungi that can cause oak wilt. The beetles bore into the limbs and drive their tunnels deep into the sapwood. They carry spores of fungi into trees, inoculating their galleries to provide food for their brood. Here, they lay eggs and the fungi clog the water conducting tissue within the tree, leading to wilting. This can cause the death of an entire limb and also spread throughout the whole tree.

Symptoms of MOB infestation include canopy dieback that starts as large sections of red/brown leaves on a whole branch that spread slowly throughout

Death of one limb or a portion of the canopy is characteristic of MOB infestation. Photo Credit: Christine Buhl

the crown. This is most obvious during the summer. In more advanced stages, attacks also occur at the base of the tree in the form of pale boring dust, also called frass, that mounds in bark crevices or at the base of the tree. The entry and exit holes are extremely hard to spot at 1/16th of an inch around, hidden in the grooves of the bark.

In exposed or downed wood, it is possible to see MOB's black stained, branching, and overlapping networks of tunnels throughout the sapwood. Female beetles may be seen on the outside of trees almost all year long. They measure in at approximately 1/8th of an inch. Males are 1/10th of an inch, flightless, and have a rhino-like horn, but are typically present in much fewer numbers than females and stay within trees.

There are several other diseases and pests that may affect oak trees including gall making wasps and flies, squirrels, oak lace bugs, oak leaf phylloxera, oak looper and various other defoliating caterpillars, and other woodboring insects, however most of these are unlikely to cause oak mortality like Mediterranean oak borer does. They also differ from MOB in their signs and symptoms. The Oregon Department of Forestry (ODF) has developed a **fact sheet** that may be helpful in differentiating damage from other pests from that caused by MOB.

According to the Oregon Department of Forestry, the introduction pathway for MOB to the west coast of the United States is unknown. It was first detected in central California in 2017, but is suspected to have been present for several years before then, and was confirmed in Oregon in 2018. Interestingly, the Oregon population is genetically distinct from the California population, indicating that it might have come from a separate introduction. It's likely that both populations travelled to the US on some kind of oak product like raw oak timber, pallets, hobby wood, or crates. One theory is that they hitched a ride on oak staves used to make wine barrels, since the infestations so far have been traced to areas known for winemaking.

Don't Move Firewood!

Many invasive species may be transported on firewood, including MOB. It is recommended that you move firewood no more than 20 miles from its place of origin and take extra care in areas with known invasive species that live in wood. Learn more at **dontmovefirewood.org**.

As pointed out by ODF Entomologist Christine Buhl in a **2024 MOB update video**, Oregon white oak, while drought tolerant, is expected to see a shrinkage of its ideal habitat in the near future due to worsening drought conditions and other impacts of climate change. For a species that is often the only overstory tree in an imperiled ecosystem, the added layer of threat posed by invasive species like MOB is concerning.

Like many other pests that affect trees, MOB has been observed to more frequently attack trees that are already weakened by things like drought, storm damage, root disease, construction and encroaching infrastructure, or other stressors, than it has been observed in healthy trees. However, in California, full scale infestations have been observed even in healthy oaks, as shared by Curtis Ewing in a **2024 presentation**. In California, valley and blue oaks have mostly been affected, and in Oregon infestation has been detected only in Oregon white oaks.

To reduce the likelihood of MOB infestation, in the video linked above, Buhl at ODF recommends reducing stressors that may increase tree stress and susceptibility to MOB. Preventative management actions may include cutting large, unsupported limbs that are likely to break in storms and can provide an entry point for insects and diseases, and avoiding construction or root compaction around at least twice the radius of the tree's dripline. Oaks are often long-lived and tolerate many stressors and injuries over time but they are large trees with large root systems and need space to thrive. In some cases, even drought-tolerant trees such as oaks may benefit from supplemental irrigation such as a slow and deep watering, in the evenings, 1-2 times during the hottest summer months, see **here** for best watering practices. However, if providing supplemental irrigation, water must penetrate deeply for long enough for trees to absorb the moisture as opposed to shallow irrigation provided by sprinklers and soaker hoses in lawns and gardens. Additionally, irrigation should be avoided where there is evidence of fungal decay such as stem or root rots but these can be hard to detect unless they are advanced or conks are visible on the exterior. While not foolproof, these suggestions may reduce other stress factors and lessen individual tree susceptibility to MOB.

If you suspect a Mediterranean Oak Borer infestation, contact your state invasive species management agency to confirm. If MOB presence is verified, according to the **Oregon Department of Forestry**, the best treatment available

Adult beetle. Credit: Christine Buhl

If you suspect you have found Mediterranean Oak Borer, contact the appropriate management agency to confirm and discuss next steps:

To report suspect Mediterranean Oak Borer in **Oregon,** report it to the **Oregon Invasive Species Online Hotline**

To report suspect Mediterranean Oak Borer in **Washington,** report it to the Washington Invasive Species Council: **pest@agr.wa.gov**

To report suspect Mediterranean Oak Borer in **California,** report it using **this survey** hosted by UC ANR.

is to cut the host tree flush with the ground and the wood should be burned or chipped onsite. If managers chip material, the chips can be spread on site, ideally away from unaffected oaks since it is not yet known whether fungi can survive and spread on this material. Another option is to bury infested material 5-12 inches below the soil surface, though optimal burial depth has not yet been determined by experts. If possible, ODF recommends burning materials in air curtain incinerators to minimize carbon emissions. To date, the use of insecticides and/or fungicides for control of this pest is unproven; evaluation is ongoing and further testing is planned. Progression of MOB infestation and injury or tree mortality was not halted in trees that were treated shortly after MOB was detected.

Currently, MOB is present in at least 7 counties in California (Napa, Sonoma, Lake, Mendocino, Sacramento, Yolo, and El Dorado), according to CALFIRE's Curtis Ewing. In Oregon, infested trees have been found in Multnomah, Marion and Clackamas Counties, with 34 infested trees confirmed and 16 removed, according to the **Mediterranean Oak Borer Survey Dashboard**. So far, MOB has not been detected in trees in Washington, but it has been found on the Oregon-Washington border and the Washington Department of Agriculture and WSU Extension have deployed monitoring traps to detect further spread as early as possible.

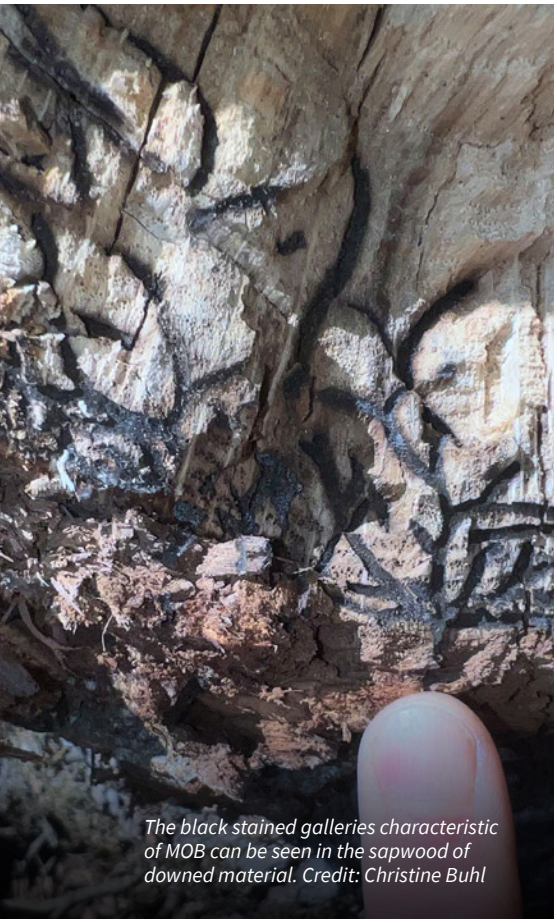
Given the persistent threats to oak woodlands, from the ongoing impacts of climate change to the emergence of new invasive species like the Mediterranean Oak Borer, continued monitoring and management are paramount. By understanding the signs of infestation, reporting suspected cases, and implementing best management practices, we can collectively work to protect these vital ecosystems and the benefits they provide. The future of our oak woodlands depends on informed and collaborative efforts from a committed community of stewards.

Resources for Further Learning

Best Management Practices, published by Oregon Department of Forestry and Oregon Department of Agriculture

2024 Workshop Recordings, hosted by Washington State University Extension's Urban Forest Health Lab

MOB Diagnosis Video by Oregon Department of Forestry



The black stained galleries characteristic of MOB can be seen in the sapwood of downed material. Credit: Christine Buhl

The pale, fine boring dust seen here is typical of an advanced MOB infestation, but may not be detected until the insects have become well established. Credit: Christine Buhl

Reconnecting Riverscapes: Beaver Restoration Assessment Tool (BRAT) Lessons for a Resilient Watershed

By Austin Bernales

On a scorching day in Winthrop Washington, watershed restoration practitioners, Tribal natural resource managers, scientists, and community partners gathered at the Winthrop public library with a shared goal: to learn, collaborate, and build capacity for one of the most transformative forces of nature in floodplain restoration—the beaver.

Hosted as one part of a series of Riverscape Network tools, this event centered on the Beaver Restoration Assessment Tool (BRAT), a powerful model designed to map, measure, and maximize the potential for beaver-driven ecosystem restoration. From cultural history to GIS mapping and field surveys, the gathering wove together diverse perspectives and practical skills, offering participants both the "why" and the "how" of working with beavers in modern restoration projects.

Alexa Whipple, Director of the **Methow-Okanogan Beaver Project** began the workshop with a powerful reminder: beavers have been shaping North American riverscapes for millennia. Tribes have coexisted with and benefitted from these keystone species since time immemorial, yet by the mid 1800s, political and economic forces had nearly eradicated them. This "structural starvation"—the loss of dams, ponds, and wetlands they created had left vast watersheds degraded, disconnected, and less resilient to floods, fire, and drought. In healthy ecosystems, beaver dams slow water, store nutrient rich sediment, recharge groundwater, and create a mosaic of wetland habitats. For restoration professionals, these processes are not luxuries; they are essential tools in the fight to rebuild ecological resilience in the face of degrading climates.

Alexa reinforced that beavers are not just wildlife. They are partners in restoration and partnerships require understanding, planning, and creative-problem solving. Utilizing tools like BRAT and deep place-based knowledge, we can facilitate that process.

Jean-Paul, Senior Watersheds Program Manager at BEF introduced the BRAT model as a"gateway" to beaver-based restoration. Developed through the

Winthrop Public Library BRAT Workshop. Photo Credit: Kayla Seaforth

Riverscape Consortium, BRAT predicts the maximum amount of beaver dams that a given riverscape can successfully support. It integrates multiple data layers: vegetation, hydrology, slope, and potential risks to help practitioners identify where beaver activity can thrive and where it may be limited by landscape factors, or conflict with infrastructure or humans.

For the PNW Beaver Network, BRAT serves three purposes:

- Mapping Capacity: Where are the conditions right for beaver dam building?
- Where could dams potentially threaten infrastructure or land use?
- Through the BRAT localization process, practitioners gain a greater understanding of the unique beaver habitat needs and beaver activity in their region. Critical information for launching any beaver restoration or conservation program.

Wally Macfarlane, Research Assistant Professor, Dept. of Watershed Sciences at Utah State University, pioneered the BRAT and joined us for the days ahead. Before diving into the technicalities of BRAT, participants explored the bigger picture: riverscape health. Healthy floodplains and riparian zones are inefficient in the best way possible. Water lingers, spreads out, and nourishes the land. This "inefficiency," created by wood jams, beaver dams, and multi-threaded channels build resilience against climate extremes. In contrast, simplified, straightened, and incised channels lose their floodplain connectivity, drying out riparian vegetation and reducing overall habitat diversity. If your goal is a resilient floodplain, your strategy should include and consider beavers.

The BRAT model estimates capacity for beaver through three primary questions:

1. Is there enough water to maintain a pond?
2. Is there enough of the right woody vegetation for dam building?
3. Can dams be built and persist across flow extremes?

All BRAT data is housed in the **Riverscapes Data Exchange**, a robust online platform with web-based GIS tools. Users can search projects, view maps, and download datasets for deeper analysis. The system supports collections, bookmarks, and tagging for customized organization. The web viewer offers an intuitive way to explore results, check data quality, and share findings with partners.

Data to inform the three questions include the National Hydrography Dataset, LANDFIRE vegetation data, and USGS hydrology curves. The model also applies buffer zones to simulate beaver foraging ranges (typically within 100 meters of water). The outputs of BRAT in the Riverscapes Data Exchange is high in fidelity, mapping beaver activity of reaches, categorizing stream segments into capacity classes, and noting suitable vegetation. This data can be compared between historical and current conditions to assess change over time.

Data is only as good as its ground-truthing, and the BRAT survey protocol was designed and developed to localize model outputs. The field crew for the day grew excited to go from learning about the BRAT to surveying Bear Creek. Field crews assessed 300-meter reaches for:

- Beaver activity (dams, lodges, feeding signs, scent mounds, food caches, feeding benches)
- Vegetation composition in 30m and 100m buffers
- Hydrology conditions at base and peak flows

These random and opportunistic surveys are both valuable, with a baseline goal of 75 field surveys per watershed. Photos, geotagging, and consistent data

Workshop participants guided through Bear Creek, viewing beaver habitat. Photo Credit: Austin Bernales

entry are critical for BRAT calibration, tuning the model towards real-world conditions.

Lessons from the workshop and subsequent field surveying underscored several key points:

- Beaver-based restoration is a high-impact, low-cost strategy for increasing watershed resilience.
- Data-driven tools like BRAT help target resources effectively, balancing ecological opportunity with risk.
- Collaboration across disciplines and jurisdictions from Tribal fisheries teams to GIS analysts to public/private landowners is essential for success.
- Ground-truthing is non-negotiable. Local expertise makes national datasets truly relevant.

Beavers had once defined the landscapes of the Pacific Northwest. With tools like BRAT, there is the opportunity to bring back their transformative influence, strategically, collaboratively, and in harmony with human needs.

As one participant put it, “Every time a new network connection sparks in the community, it’s like a beaver building a new dam—more resilience, more connectivity, more life.”

Watch the Workshop Recordings

Want to revisit the presentations or learn about BRAT? View the full video recordings **here**.

Explore the Riverscapes Data Exchange BRAT Access Page

Ready to see where beaver restoration opportunities exist in your watershed? Visit the **BRAT Access Page** to explore maps, download datasets, and start planning your next restoration project.

BRAT surveying at the beginning of a reach.
Photo Credit: Austin Bernales

WDFW Riparian Data Engine is Live

Earlier this summer, Washington Department of Fish and Wildlife (WDFW) made their **Riparian Data Engine** available for public use, following more than a year of scoping, public input, and development. The data engine combines data from more than a dozen sources to help support riparian restoration planning efforts, and is hosted on a publicly accessible dashboard.

Some of the key features offered by the platform include:

- **Search, filter, and summarize:** These core tools allow users to explore and analyze vast amounts of data at various geographical scales, from broad regions down to specific stream reaches.
- **Identifying gaps in vegetation cover:** The engine helps pinpoint areas where riparian vegetation is missing or degraded, providing a clear visual representation of where restoration efforts are most needed.
- **Addressing water temperature:** It identifies aquatic areas with documented higher-than-normal water temperatures, often a direct consequence of insufficient shade from riparian vegetation, enabling targeted interventions.
- **Locating fish passage barriers:** The tool maps human-made barriers that impede fish movement, a critical factor for salmon recovery.

Source

To help riparian professionals get started using the engine, ESA, in coordination with WDFW has developed a **Riparian Data Engine Guide** to describe the components of the main pages to help users quickly find what they are looking for. For more background, see a **webinar** that WDFW staff hosted in June to explore the engine and share several potential use cases.

The functions described here are a small window into the applications of the Riparian Data Engine. Washington based practitioners, planners, and more are encouraged to explore this tool and share feedback with WDFW staff. For more context on the tool, check out a recent **blog post** by WDFW staff.

Categories of data represented in the engine include:

- **Land cover:** Detailed information on vegetation height, types, and changes over time.
- **Fish and streams:** Data related to fish distribution and stream characteristics in a watershed or reach.
- **Human and social elements:** Information like land use (such as agricultural or forestry) and protected areas and intersections with riparian habitats.
- **Boundaries:** Various local, jurisdictional, and geographic boundaries.

Source

"I hope restoration professionals find that the RDE provides an easy and reliable way to create a short list of high priority projects. I hope it helps people identify great projects in places that weren't on their radar. I hope funding agencies encourage its use. Finally, I hope users provide feedback to RiparianData@dfw.wa.gov so we can make the tool even more useful for users."

- Keith Folkerts, Riparian and Shrubsteppe Environmental Planner at WDFW

Conferences & Events

Tree School Lane

October 25, Eugene OR

Tree School Lane will be held at Churchill High School. This mini-college features 32 classes on a wide variety of topics of interest to family forestland owners, professional foresters, loggers, arborists, teachers, and forest enthusiasts of Northwest Oregon.

Learn **more**

11th Annual Fire Ecology and Management Conference

December 2-6, 2025, New Orleans, LA

Save the date for the 11th International Fire Ecology and Management Congress in New Orleans, Louisiana. This event will include workshops, field trips, and 3 full days of presentations, discussion groups, and networking opportunities.

Learn **more**

2025 Carbon Friendly Forestry Conference

December 8, 2025, Seattle, WA

We're excited to welcome practitioners, policymakers, decision-makers, landowners, civil society, wood supply chain companies, academics, and community members whose work connects to forest management or carbon sequestration.

Learn **more**

International Invasive Species and Climate Change Conference

December 9-10, 2025, Virtual

This virtual conference is currently seeking presenters focusing on natural and cultural resource management, and early career presenters.

Learn **more**

After the Flames: Tools and Tactics For Communities and Agencies Impacted By Wildfire

April 6, 2026, Cle Elum, WA

After the Flames Conference and Workshop is an event devoted to post-fire recovery. Attendees represent individuals, organizations, and agencies impacted by wildfire and responding to the post-fire impacts, as well as experts in the arena of post-fire recovery.

Learn **more**

Further Reading

Tribal Paddlers Explore the Undammed Klamath River

The Washington Post

RANGES

by George Kral

This blog post by PhD forester and nursery owner George Kral discusses the ever shifting ecological stronghold of plants, and how we might consider these as climate conditions rapidly shift.

watersheds program

Do you have an idea for a future newsletter article or interview, or a suggestion for how we might improve? Please reach out to Kas Guillozet at **treeline@b-e-f.org**.

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