

## Runner

FALL 2024

### REMOVING SALMON MIGRATION BARRIERS AND RESTORING NATIVE PLANT COMMUNITIES

BY: COLLEEN MERRICK, CRWP AND CRNA CLIMATE CHANGE COORDINATOR

Milepost 74.2, Richardson Highway – In a pioneering effort to blend modern environmental science, indigenous knowledge, and youth activism, the Little Tonsina Restoration Project has successfully opened more than 70 miles of salmon spawning and rearing habitat. The multi-million-dollar initiative marks a major milestone in restoring a crucial segment of Alaska's wilderness.

The project not only improves access for salmon but also includes the reintroduction of over 628 native plants, aiming to heal the land and stabilize the environment disrupted by infrastructure development. Collaborators included the Anchorage Soil and Water Conservation District (ASWCD), the Plant Materials Center, the Copper River Native Association (CRNA), and local youth who took part in the restoration process.

#### Reintroducing Native Plants for Ecological Balance

Restoration efforts focused on reestablishing native vegetation using permaculture principles, which emphasize working with nature to create sustainable ecosystems. Plant species such as wild geranium, common yarrow, bluebells, and spruce were chosen for their ability to promote soil health, prevent erosion, and provide habitat for wildlife.

**Siberian yarrow**, with **500 plugs planted**, played a key role in building soil structure. Meanwhile, **alder** and **Chamisso sedge** helped with nitrogen fixation and erosion control, critical for a recovering ecosystem. Dana White and Sabrina from the ASWCD were instrumental in selecting species that would not only thrive but contribute to the long-term health of the ecosystem.

"We wanted to choose plants that would survive and restore balance," said White. "This project isn't just about aesthetics; it's about rebuilding a healthy environment that can sustain itself."

#### Youth Activism and Hands-On Restoration

The project's success was also driven by the involvement of local youth, who worked alongside the **Copper River Watershed Project.** Three young volunteers were part of the team that dug holes, planted seedlings, and scattered seeds of **lupine**, **fireweed**, and **yarrow** to promote biodiversity. Their work highlighted the power of youth activism in environmental conservation.

"This project showed me how everything is connected," said one youth participant. "It felt good to be part of something that's going to last."

#### A Blueprint for Future Projects

The Little Tonsina Restoration Project sets a new standard for infrastructure initiatives, combining ecological restoration, community involvement, and indigenous knowledge. The planting of native species, including 17 highbush cranberry plants and hundreds of Siberian yarrow plugs, ensures the landscape will return to equilibrium, improving biodiversity and soil health.

As the final seedlings were watered and mulched, the project came to a close, leaving behind a thriving ecosystem that will benefit future generations of Alaskans. This initiative now stands as a model for how environmental restoration can be integrated into infrastructure projects nationwide.

"This project was about more than just fish habitat," said Colleen Merrick. "We've built an ecosystem, and it's something that can be replicated elsewhere."

With continued monitoring and community stewardship, the Little Tonsina Restoration Project serves as a powerful example of how diverse groups can come together to protect and restore Alaska's natural environment.





We are thrilled to announce the appointment of Kate Morse as CRWP's new Executive Director! Kate has been an integral part of CRWP since 2008 and steps into this leadership role following sixteen years with the organization as Program Director.

Kate began her journey with CRWP as a part-time staff member after earning her master's in public administration and nonprofit management from the University of Oregon through their Planning, Public Policy, and Management Program, with a focus on managing watershed landscapes. Her case study on the Copper River watershed led to a pivotal connection with Kristin Carpenter, CRWP's founding Executive Director, who connected Kate with communities and partners throughout the watershed. Kate then helped secure funding to evolve her position into a full-time role, where she significantly expanded CRWP's programs.

Under Kate's stewardship as Program Director, CRWP achieved notable milestones, including the Little Tonsina Bridge Project opening up 70 miles of critical upstream habitat in the Copper Basin and becoming the Nation's first Bipartisan Infrastructure Law-funded fish passage project to break ground.

Kate has also been a driving force behind CRWP's youth engagement efforts, creating opportunities for the next generation of environmental stewards through Watershed Education Programs, like Salmon in the Classroom, providing youth with hands-on experiences learning about the lifecycle of salmon and the habitats required for their survival.

Matt Piché, Board Chair, Cordova

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Kate Morse, Executive Director Alexis Cooper, Accounting Kimberlee Casavan, Operations Manager Amy Scudder, Partnership Administrator Ashley Taylor, GIS and Data Specialist Kirsti Jurica, Watershed Restoration Staff Michelle McAfee, Communications Specialist



loves engaging ruture stewards an se their salmon fry in May 2024.

In addition to her work with fish passage and youth education, Kate helped expand the Freshwater Temperature Monitoring and Invasive Plant Management Programs, which are also connected to fish passage and the overall health and sustainability of the watershed.

Copper Basin Board Member, Tenley Nelson said, "As an upriver board member, I am pleased to embrace Kate Morse as our new Executive Director. While we will miss seeing her at the programs she has run for over a decade in person, it is that experience and knowledge of the Copper Basin that leads me to believe she will competently advocate for salmon health and habitat in the entire Copper River Watershed. Welcome, Kate!"

Kate takes on the Executive Director role during a period of significant growth for CRWP. With sixteen dedicated years working in the watershed, her deep understanding of the region's challenges and opportunities will help lead the organization into its next chapter. We're excited to see what the future holds for CRWP, and welcome Kate as our new Executive Director!

Amanda Jackson, Watershed Stewardship Program Manager Colleen Merrick, CWRP/CRN Climate Change Coordinator



by NOAA at the American Fisheries Society meeting.

#### GAINING NATIONAL EXPOSURE FOR FISH PASSAGE

BY MICHELLE McAFEE

The Copper River Watershed Project (CRWP) had several opportunities in 2024 to showcase our fish passage work on a national platform. With a focus on culvert replacements in the Copper River Delta and the Eyak Lake Weir project, CRWP engaged in several key events throughout the year.

In May, CRWP participated in Innovate Cordova, a two-day tour for public and philanthropic leaders to review and advance resilience innovations for coastal communities. During the event, staff members Kate Morse and Alexis Cooper presented the Eyak Lake Weir fish passage project to Senator Lisa Murkowski, State Representative Louise Stutes, and Commissioner John Boyle III from the Alaska Department of Natural Resources. The project faced an ownership hurdle that needed to be resolved for the project to move forward and we needed support from decision makers to get us to a resolution. Continued failure of the weir threatens the productivity of this valuable salmon habitat in Cordova.

More recently, Kate also presented at the American Fisheries Society's 154th annual meeting alongside Tiffany Beedle from The Eyak Corporation (TEC). Their presentation highlighted fish passage on tribal lands and how reconnecting waterways helps to connect the Eyak People to traditional resources.

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In the early 1900s, a railroad, now a gravel road, bisected the river delta to move copper from mines in the Wrangell Mountains to the coast, disconnecting and disrupting critical salmon habitat.

CRWP and TEC were awarded \$4.3 million in NOAA funds through the Bipartisan Infrastructure Law (BIL) to remove fish passage barriers like failing culverts and open access to spawning and rearing habitat on the Copper River Delta. These culvert replacements result in a more productive salmon habitat and resilient infrastructure and connect the Eyak people to their customary and traditional resources on the Copper River Delta.

Additionally, Kate Morse was invited to speak with the Alaska Congressional Delegation in Washington, D.C., to highlight the positive impacts of BIL funding in the region through the Alaska Sustainable Salmon Fund. Our groundwork with fish passage restoration planning had CRWP poised to work quickly when the BIL funds were released. The delegation sought insights from organizations with completed BIL-funded projects, and CRWP was uniquely able to provide feedback, having completed several key projects with BIL funds.

(Above) CRWP staff members Kate Morse and Alexis Cooper with Senator Lisa Murkowski in the CRWP office wearing salmon hats during Innovate Cordova 2024.

CRWP staff members Kate Morse and Alexis Cooper with State Representative Louise Stutes at Sheridan Glacier during Innovate

(Below) Looking upstream at the old Eyak Lake Weir that is currently in the planning stage for replacement. Photo by Euan-Angus MacLeod



The ongoing efforts to create a barrier-free watershed are rooted in local action, but gaining national attention opens doors for further funding and support. CRWP remains dedicated to removing barriers that block salmon spawning grounds, opening more cold-water rearing habitats for salmon, and ensuring the health of the Copper River ecosystem for future generations.

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In the 26,500-square-mile Copper River watershed, connections matter. Home to one of the world's most prolific and prized wild salmon runs, the Copper River is the tenth-largest in the United States. It supports a strong commercial and subsistence fishing economy and is the lifeblood of twenty diverse communities that call this region home. For the last twenty-five years, the Copper River Watershed Project (CRWP) has carved a niche as a convener and is dedicated to solving complex issues facing this region.



#### FISH PASSAGE

Fish passage is the focal point of our work. Our communities and economies rely on fish and the healthy habitats needed to support healthy fish migration. Replacing undersized or damaged culverts with large-

span culverts or bridges allows juvenile fish to move freely between smaller tributaries and larger waterways. This gives fish access to more freshwater spawning areas in the watershed.



#### STREAM TEMPERATURE MONITORING

Another critical focus with long-term watershed implications is the Stream Temperature Monitoring Project. Salmon thrive in cold water with ideal

temperatures between 41-55° F. Colder water contains more oxygen, which salmon eggs need to survive, so finding cold water refuge for salmon is important as global temperatures rise. Through stream temperature monitoring, the most supportive areas for salmon can be targeted to create a barrier-free passage to colder water habitats.

"It's easy to be focused on protecting the salmon streams that have salmon in them, but some of those streams are only viable and healthy habitats because of the cold water springs that are draining into those streams," said Kate Morse.



#### COLLABORATIONS

We collaborate with partners to jointly plan, develop, and implement projects in the watershed with handson stewardship and boots-on-the-ground action.

Connecting the people who live in the watershed with opportunities to train in restoration and stewardship work is also an important part of what we do, from opening up career opportunities for youth to facilitating work training for adults with regional organizations.

CRWP combined resources and partnered with the Copper River Native Association (CRNA) in 2023 to bring Colleen Merrick on board with both organizations. Merrick works with CRNA's Youth Employment Training Initiative Program (YETI), facilitating paid summer internships and various workforce development opportunities. Merrick and Kate Morse combined the YETI and CRWP's Invasive Plant Management Program, getting youth out onto rivers in their area, educating them on invasive plants, and manually removing those plants on field trips.

Through partnerships and projects, tangible solutions to wideranging issues in the watershed can be solved. This is a big watershed, and it takes a birds-eye view of a map to see how connected our communities are, and how far the projects we work hard on reach.

Like the veins of freshwater tributaries feeding the main Copper River, it will take every community effort, partnership, and successful project to keep the entire watershed connected, healthy, and thriving into the future. We are dedicated to using the strengths of our organization, communities, and watershed to come together for a vibrant, healthy future for the Copper River.





After a busy first field season as Watershed Stewardship Coordinator, I welcome the opportunity to reflect on the summer and I am hopeful for the future of the watershed. It was inspiring to see so many residents, especially youth, actively engaged in hands-on stewardship activities that deepened their understanding of their role in sustaining the web of watershed connections around us.

A particular highlight was our collaboration with five Tribal and Federal partners that resulted in a day-long workshop with 15 youth stewards from across the watershed engaged in workforce initiatives. The event highlighted the value of partnerships in tackling watershed-scale issues, like invasive plant management and supporting healthy native plant communities. Youth participants and their mentors learned how to identify the invasive plants of the Copper Basin, various control methods (e.g., deadheading and tarping), as well as how to prevent their spread to begin with. They also practiced surveying and left with resources such as boot brushes and ID guides to support their efforts to tackle the pesky plants. As they continued their summer internships, they were able to assist in continued monitoring and eradication efforts as well as ensure they didn't spread new infestations.

We are so fortunate at CRWP to already see the "fruits" of these engaging educational opportunities that plant stewardship seeds during teens' formative years – our seasonal workforce included two recent graduates from the region and former participants in our annual Copper River Stewardship Program. Both Floyd Witsoe and Bella Ranck had participated in various Watershed-stewardship activities while in elementary and high school, which inspired them to join the CRWP team for the field season and continue to make a positive impact on the watershed. We are very proud to see the progression and extended interest the students have had in our programs, committed to helping sustain the health of their communities.



(Top) Plant Program Intro Day: Youth Environmental Training Initiative (YETI) working group with Copper River Native Association (CRNA), the Ahtna Youth Interns with Ahtna Incorporated, and the Youth Conservation Corps (YCC) and Student Conservation Association (SCA) participants with Wrangell-St. Elias National Park and Preserve.

(Above) Bella is hard at work capturing invasive plant data along the Gulkana River with our federal partner, BLM.



"I have always loved the Copper River Watershed, the delta, the mountains, everything. Growing up in Cordova, I spent a large amount of my time recreating, working, and subsistence hunting and fishing. I was a Steward on the Stewardship Program and an intern in summer 2022, working with CRWP on their net recycling project. Because of these experiences, I knew this summer would be an opportunity I would regret not taking. I helped with the control of invasive plants making sure they didn't spread, and I loved every moment of it." – Floyd Witsoe

## WELCOME TO THE TEAM AMY SCUDDER

Amy Scudder joined CRWP in June 2024 with a background in environmental science, nonprofit administration, and community engagement. In her role, Amy will focus on building and sustaining the partnerships that make our work happen. Amy believes sharing our collective knowledge and resources will create a more sustainable future for the Copper River watershed.

With over 20 years of Alaskan conservation experience, she has led projects on ecological restoration, community involvement, and coalition building. She loves to find meaningful, place-based connections with the lands, waters, and people that nourish and connect the Copper River watershed. As someone who can never decide if she is a "water" or "mountain" person, she is excited to work with partners who connect the big geology and hydrology of the region. Amy has a B.S. in Biology and an M.S. in Environmental Science and is working on an M.A. in organizational leadership and conflict mediation.

In her free time, she can be found hiking the Wrangell mountains, exploring glaciers, biking as much as possible, adventuring with her teenage kids, cooking, reading, and knitting. Amy is based in McCarthy, Alaska living among the glaciers and lakes that flow into the watershed.





As we wrap up the summer, enjoy the fall harvests, and start thinking about 2025, we will take a moment to celebrate our secret sauce: partnerships! Working with local communities, Tribes, nonprofits, and State and Federal agencies is what makes our mission to sustain this amazing watershed possible.

#### HERE ARE A FEW REASONS WHY PARTNERSHIPS ARE KEY:

- 1. Shared Knowledge: Each partner brings their own expertise. Whether it's scientists studying fish, engineers designing better fish-passage structures like culverts and weirs, or local Tribes sharing traditional knowledge and practices, we all learn from each other!
- 2. Combined Power: Teamwork makes the dream work! Together we can tackle bigger projects. Thanks to our partners we've been able to do habitat restoration projects that wouldn't be possible on our own because of combining expertise and resources.
- 3. Community Connection: Our partnerships help us connect with local groups, schools, students, volunteers, visitors, decision-makers, and the fishing community so that everyone feels a sense of ownership and pride in working together to sustain the health of the Copper River watershed.
- 4. More Clout: When we work together our voices are louder! Together we can push for actions that benefit the watershed and its fish and wildlife.

Because of the value CRWP places on partnerships, and our interest in helping them function in a way that is efficient with their time and maximizes our collective resources, I was hired in the new role of Partnership Administrator. In this role, I will work to keep our diverse partners on the same page working towards our common goals.

Feel free to contact me at partnership@copperriver.org to introduce yourself or find out how you can partner with us to help keep the Copper River watershed intact and functioning!

(Above) Kate meets with partners from ADFG, USFWS, USFS, and DOWL on-site at Eyak Lake Weir.

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# COPPER RIVER WATERSHED PROJECT

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#### **ROBIN MAYO**

**EXECUTIVE DIRECTOR** 

#### WISE (WRANGELL INSTITUTE FOR SCIENCE AND ENVIRONMENT)

I support Copper River Watershed Project because they really show up, implementing hands-on projects that embrace community involvement and collaboration. Actions speak louder than words, and CRWP projects bring together diverse people from throughout the region with the common cause of caring for our watershed.

I work for WISE, a partner nonprofit organization that does science and environmental education in the Copper Basin. CRWP is a frequent partner, and they always bring fantastic energy and creativity to our work with youth, like the field trip Amanda Jackson organized this spring so students could release the salmon they had raised. This is what it's all about: youth out in nature, getting wet, getting dirty, being actively engaged in their world.

As a former board member, I appreciate the thoughtful and professional way the organization is managed. The addition of permanent full-time staff and an office in the Copper River Basin is a wonderful step forward, cementing CRWP's commitment to the whole watershed.

Supporting Copper River Watershed is a way to show my love for this region, and my belief in a healthy future for the people and the watershed.

