



VOL. 1 ISSUE 1 • OCTOBER 2023

FLOWING FORWARD

The Gifford Pinchot Stream Chronicles



Find the Opportunity

In the heart of the Pacific Northwest, nestled amidst the sky scraping stratovolcanoes, towering evergreens and pristine landscapes, lies the Gifford Pinchot National Forest. This sprawling expanse of lush greenery, waterfalls, and diverse ecosystems is not just a sight to behold; it's also the focus of an ambitious aquatic restoration effort. In our new newsletter, we invite you to explore the exciting opportunities emerging from the depths of Gifford Pinchot's aquatic restoration initiatives.



This Issue:

Find the Opportunity

Restoring the Heart of the Forest

Spotlight On 2023 Projects

Vision 2024

Flowing Forward

Fish-tistics

Play Array!!!

*Sneak Peek Next Issue

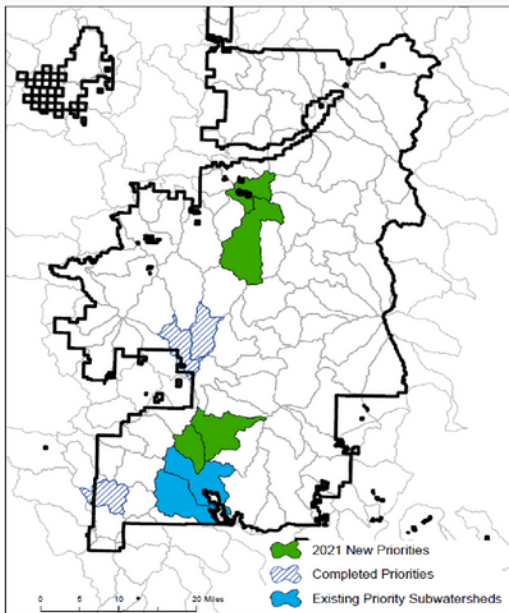
Where we dive into the exciting world of partnerships that make waves! We'll also explore the electrifying power of hydropower, flow forward with Yellowjacket/Cispus river area, and much more. Stay tuned for a magazine bursting with energy and eco-excitement!"





Restoring the Heart of the Forest

Gifford Pinchot National Forest is home to an intricate network of rivers, streams, and lakes. These aquatic ecosystems are vital not only for the diverse wildlife that call them home but also for the communities that rely on them for recreation and sustenance. Over time, human activities have taken their toll on these ecosystems, leading to issues like degraded water quality and the decline of native species.



Watershed Restoration Action Plans

The Forest Service has a process by which watershed quality can be prioritized based on the ecological, hydrological, and geomorphic functions and processes that affect watershed condition, called the Watershed Condition Framework. National forest managers use this framework to develop Watershed Restoration Action Plans (WRAPs) for watersheds that are priorities for restoration. The Forest plans to work on the restoration projects in the WRAPs over the next 5–7 years to improve watershed conditions and increase resilience to climate change. Current WRAPs include Yellowjacket Creek, Camp Creek, Trout Creek, Trapper Creek, Dry Creek, and the Wind River Headwaters.

A goal without a plan is like a fish without a home, merely swimming in wishful waters.



Spotlight: 2023 Projects

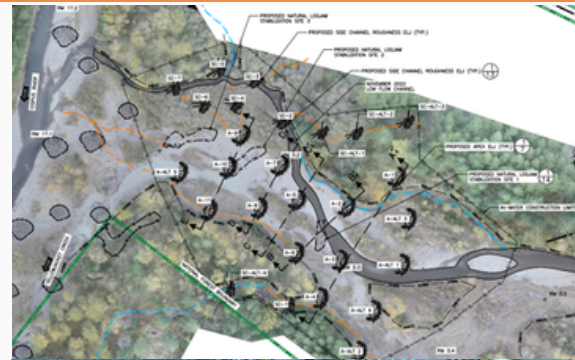
Yellowjacket Creek Phase 3

Collaboration and partnership lie at the heart of our mission to enhance watershed function within the Gifford Pinchot National Forest. Our Forest continues to join forces with The Cowlitz Indian Tribe to revitalize salmon and steelhead habitats in the Cispus River and Yellowjacket Creek, vital tributaries to the Cowlitz River. In this remarkable partnership, The Cowlitz Tribe has taken the reins, overseeing contacts, while the Gifford Pinchot National Forest has diligently handled the environmental analysis and Permitting aspects. In the exciting Phase 3 of our endeavor, we've breathed new life into a half-mile stretch of Yellowjacket Creek by introducing multiple large, intricately designed wood structures. These engineered log jams, securely embedded 20 feet into the riverbed and rising another ten feet above the water's surface, consist of layers of substantial wood and slash. Much like the natural formation of log complexes, these structures have been backfilled with river substrate and are set to be adorned with native trees, thanks to the dedicated volunteers from [Cascade Forest Conservancy](#). This tree planting will help anchor the structures, fostering the growth of desirable forested islands.

The construction process has been meticulously planned to mimic the natural evolution that takes decades, allowing debris and sediment to accumulate forming natural complex log jams. The immediate impact of these engineered log jams will entail slight shifts in the river channel, the resurgence of side channels, and the formation of pools with cooler, deeper waters where fish can seek refuge during warm spells or floods.

Our project's ultimate goal is to provide top-notch spawning grounds, summer rearing habitats, and safe wintering spots. These engineered log jams also serve as excellent hiding cover and deepen residual pools in the main stem and re-activated side channels. Furthermore, this initiative will enhance water storage and hyporheic exchange, lower summer stream temperatures, and fortify resilience against the effects of climate change, including more severe flood events, reduced summer flows, and heightened thermal pressures. Given the substantial yearly discharge in the Cispus River above the Yellowjacket confluence, which can reach about 15,000 cubic feet per second, and the current gaged maximum of 28,000 cubic feet per second, large log jams are imperative to ensure these structures stand strong.

Funding for this monumental undertaking has been made possible through the generous support of the [Tacoma Cowlitz Restoration and Recovery](#) and the [Lower Columbia River Salmon Recovery Funding Board](#), with a total of \$1,600,000 dedicated to this noble cause. Together, we're forging a path toward a brighter, more sustainable future for our cherished rivers and their invaluable ecosystems.



Spotlight: 2023 Projects Continued...

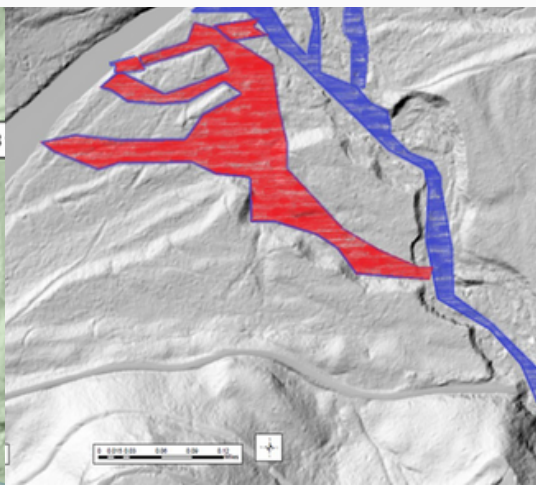
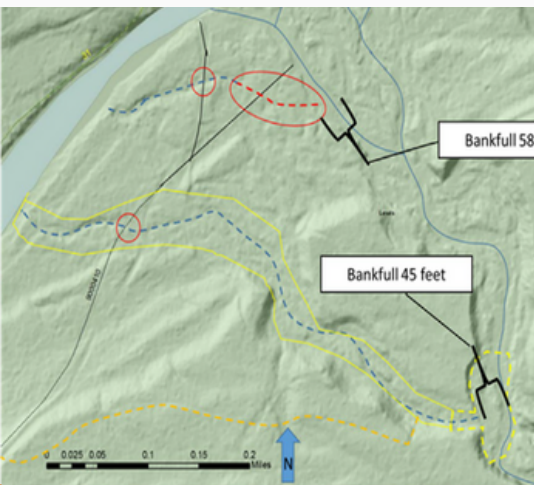
Rush Creek Phase 2 - Final

In the 1970s, road construction and logging activities disrupted several side channels within the Rush Creek alluvial fan, significantly reducing the complexity and connectivity of crucial fish habitat in the broader Lewis River watershed. Fast forward to 2022, where fisheries biologists from the Gifford Pinchot National Forest embarked on the Rush Creek Side Channel Reactivation Project. This project aimed to restore the natural hydrology, geomorphology, and ecology of the area, with the ultimate goal of revitalizing essential cold-water fish habitat by reconnecting two dormant side channels within a core spawning and rearing section of Rush Creek.

In the first phase of the project in 2022, we successfully rejuvenated 3,145 feet of channel habitat. This effort was instrumental in expanding juvenile bull trout rearing spaces and enhancing adult spawning habitat within Rush Creek. To achieve this, a contractor skillfully utilized an excavator to remove an outdated log landing, a culvert, and a substantial berm, effectively restoring the connectivity of the northern side channel of the creek.

Rush Creek Phase 2, the culmination of our efforts, was completed during the summer of 2023. This phase focused on reactivating the southern and western portions of the alluvial fan by strategically placing boulders and rocky materials to redirect the flow into these previously obstructed channels. To further enrich habitat complexity, full-length trees were carefully positioned in both channels by an excavator. This monumental undertaking opened up an impressive 1.5 miles of fresh spawning and rearing habitat.

With these dedicated conservation efforts, we're not only mending the past disruptions but also ushering in a brighter future for Rush Creek and the diverse aquatic life it sustains. Together, we're creating a thriving environment where fish can flourish and contribute to the health of our cherished Lewis River watershed.



VISION 2024

PROJECTS

The Aquatic Restoration Program is ready to put its plans into action with a robust lineup of on-the-ground projects. These initiatives are fully funded and will be executed by either our dedicated Forest Service team or our trusted partners. We've already completed the necessary environmental analysis processes, and now it's time to roll up our sleeves and get to work. Boots on the ground, we're on the move, ready to make a positive impact!" 🧡🌊🌲🐟



DRY CREEK

AQUATIC ORGANISM PASSAGE
 >>> \$1,000,000

LEGACY ROAD AND TRAILS

Exciting news for Dry Creek! The design phase was successfully completed in 2023, and by 2024, it will be liberated from its last remaining barrier in the subwatershed. The Aquatics team is collaborating closely with Engineering to strategically time the implementation in sync with an upcoming timber sale. This coordinated effort is set to bring positive changes to the ecosystem.

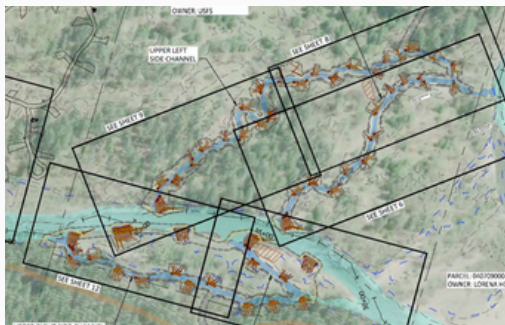
CAMP CREEK RESTORATION
 In 2023, Cascade Forest Conservancy (CFC) and Gifford Pinchot National Forest joined forces, securing funding from Tacoma Power's CRR initiative. This partnership will pave the way for contracted work, where CFC will collaborate closely with Gifford Pinchot National Forest employees to bring this crucial project to fruition. Together, we're committed to making a positive impact on our environment!

>>>> \$90,000 Cowlitz Restoration & Recovery
 \$10,000 Cascade Forest Conservancy



WIND RIVER MINING REACH PHASE 1
 >>> \$267,000
 WATER SOURCE PROTECTION
 \$40,000

NATINAL WILD TUKEY
 The Gifford Pinchot Aquatics team is gearing up to take on the first phase of the mining reach in the Wind River, covering a significant 1-mile stretch of stream. It's an all-hands-on-deck effort for this crucial implementation. Excitingly, the National Wild Turkey Foundation has stepped in to provide funding for fish log acquisition further supporting this important project. 🌊🌲🐔🐟



BEAVER CAMPGROUND SIDE CHANNELS

>>>> \$340,000 SALMON RECOVERY FUNDING BOARD

In collaboration with the Mid-Columbia Fisheries Enhancement Group, the Gifford Pinchot Aquatics team is embarking on a project to enhance the area below Beaver Campground. This initiative involves the addition of wood and the opening of side channels. MidColumbia will be responsible for contracting out the work, while the Gifford Pinchot Aquatics team will take the lead in directing the implementation. Together, we're working towards a healthier aquatic ecosystem.

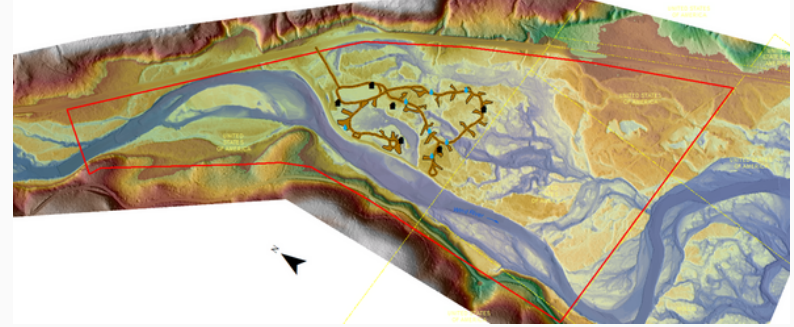


VISION 2024



DESIGNS

The future indeed looks promising as we meticulously design projects, drawing on the expertise of our FS staff in Engineering and Aquatics, as well as the substantial contributions of our dedicated partners. With a collaborative approach, we're paving the way for successful on-the-ground implementation, ensuring a brighter future for our aquatic initiatives." 🌞 🌧️ 🌲 🍂



SWIFTCAMP CREEK,
OLDMAN CREEK AOPS
➤➤➤ \$90,000

LEWIS RIVER AQUATIC
CONSERVATION COMMITTEE

Gifford Pinchot Engineering
and Aquatics contracting
out design to fix barriers to
fish.

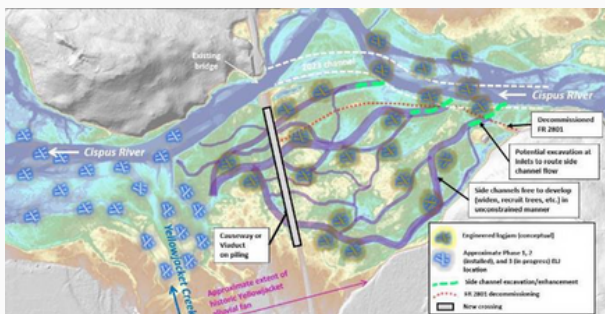
The Gifford Pinchot Aquatics Group,
in collaboration with the
Underwood Conservation District,
aims to enhance the pipe
infrastructure on a county road.
This improvement project is
designed to enhance passage to the
forest land located above the area.

➤➤➤ HOLLIS CREEK
AQUATIC ORGANISM PASSAGE
\$150,000



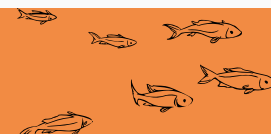
➤➤➤ DRY CREEK REACH 1
\$90,000 BONNEVILLE
POWER ADMINISTRATION

In partnership with the Yakama
Nation, the Gifford Pinchot Aquatics
group will be designing the first
reach of Dry Creek for instream
habitat restoration



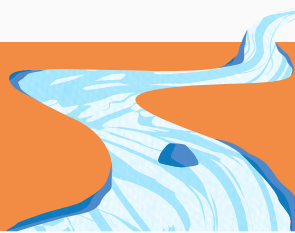
➤➤➤ FOREST ROAD 28 CISPUS SIDE CHANNEL
\$200,000 TACOM COWLITZ RESTORATION AND RECOVERY

In collaboration with the Gifford Pinchot National Forest, the
Cowlitz Indian Tribe has received funding to do preliminary
design on both improving passage through the 28 road and
creating complex habitat in the newly available side channels.





FUTURE

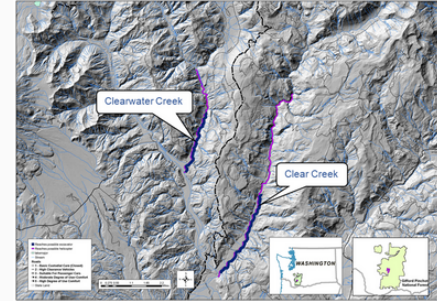


FLOWS

We have a lineup of upcoming projects that are almost at the starting line, just waiting for that final push to get them into full implementation mode! Exciting times ahead as we bring these initiatives to life!"



CLEAR AND CLEARWATER CREEKS
>>> \$3,200,000 LEWIS RIVER ACC
 Funding the Lewis River Aquatic Conservation Committee has been successfully acquired for the placement of fish logs in Clear and Clearwater Creeks. 2024 have been earmarked for the environmental analysis process to identify suitable tree stands for the implementation of these projects.

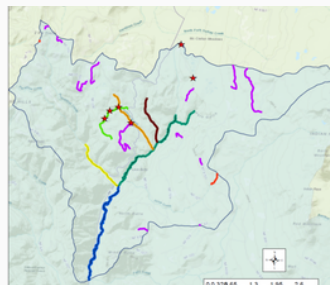


YELLOWJACKET, CRYSTAL & HIGH BRIDGE AOPS >>> \$2,000,000

In 2024, the Gifford Pinchto Aquatics and Engineering group will initiate the search for funding to support their designed projects.

The Wind River has secured **\$5 million** in Collaborative Landscape Aquatic Restoration (CALR) funding dedicated to aquatic restoration efforts. This financial support will be allocated to initiatives such as stream restoration, road hydrostabilization, and the removal of barriers that impede fish passage to aquatic restoration efforts.

>>> \$5,000,000 CALR WIND RIVER MINING REACHES 2-4, PARADISE CREEK, DRY CREEK, WIND RIVER ROADS



FISH LOGS FOR COWLITZ INDIAN TRIBE

The Cowlitz Indian Tribe has made a request for fish logs to support their restoration projects downstream of Gifford Pinchot. They are currently exploring stands located within the Amboy and Pine Creek administration sites for this purpose.

CISPUS-YELLOWJACKET RESTORATION NEXT PHASES



>>>> YELLOWJACKET/CISPUS PHASE 4, 5 AND FOREST ROAD 28

Phase 4, encompassing both private and Forest Service land, has secured funding for its implementation, with plans to commence in 2025. A portion of the project's required trees will be sourced from fish log stands identified within the Yellowjacket Vegetation environmental analysis. Furthermore, Cowlitz Indian Tribe and Forest Service are actively seeking funding for Phase 5's design (beyond Phase 3 on Yellowjacket Creek) and the subsequent implementation of Forest Road 28 project within the upcoming years.





FISH-TISTICS

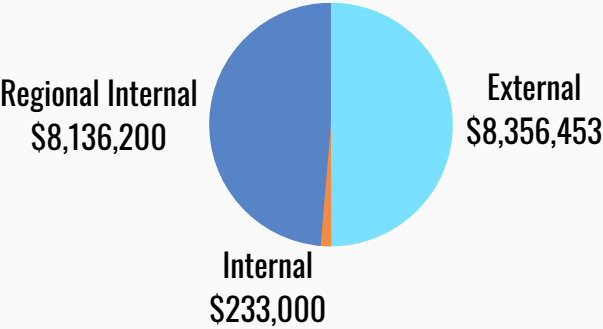


Welcome to "Fin-tastic Fish Facts"! The Gifford Pinchot Aquatics Group has dedicated substantial effort to collaboration with partners in securing funding, allocating resources wisely, and witnessing tangible benefits for aquatic ecosystems. Numerous projects within our initiative have successfully garnered significant financial support, which has played a pivotal role in advancing our mission to restore and safeguard aquatic habitats. These funds have been strategically allocated for multifaceted purposes, such as hydrostabilization of roads, the removal of barriers obstructing natural water flow and fish movement, as well as the strategic placement of thousands of logs to enhance habitat complexity. Our collective endeavor is making a significant impact on the preservation and revitalization of aquatic environments.

PROJECT FUNDING RECEIVED

2021-2027

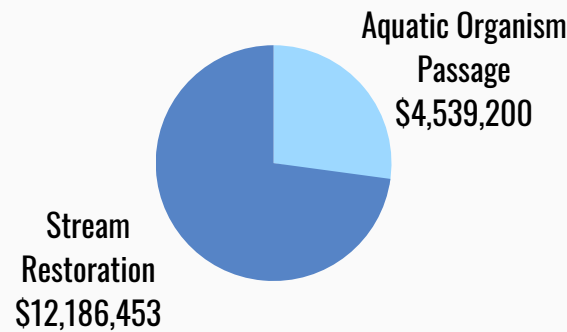
TOTAL= \$16,725,653



DOLLARS SPENT ON AQUATIC PROJETS IN 2023

\$1,755,000

HOW DOLLARS WILL BE DISTRIBUTED



WHERE DOES AQUATIC RESTORATION FUNDING COME FROM?

Collaborative Aquatic Landscape Restoration Fund, PacifiCorps Lewis River Aquatic Coordination Committee, Water Source Protection, Tacoma Powers Cowlitz Restoration and Recovery, Mid Columbia Salmon Recovery Funding Board, National Wild Turkey Fund, Washington Department of Natural Resources, Army Corp of Engineers, National Oceanic and Atmospheric Administration, Legacy Roads and Trails Fund and more..

*This funding could not be going toward our National Forest if it were not for all our great partners. Look forward to our next issue for a dive into the partnerships we have.

»»» ACCOMPLISHMENTS IN 2023

- Fish Barriers Removed - 3
- AOPs Designed - 4
- Roads Hydrostabilized - 1 mile
- Stream Improved - 2.5 miles
- Improved floodplain (acres) - 45 acres
- Fish logs placed- Over 10,000

Fish Logs are Key to funding match and project readiness!!

Thank You! Environmental analysis teams for getting fish logs through the process!!



PLAY ARRAY!!!

Phillip Thompson lead an education outreach field trip for Western Washington University students. They learned about the Forest Fisheries Program and what a U.S. Forest Service Fish Biologist does!

The group discussed everything from planning processes to collaboratively working with partners, regulatory agencies, and tribes. The group visited the Rush Creek Restoration Project and Swift Camp Creek. The group also learned about data collection biologists are doing on Bull Trout, viewed a culvert replacement for aquatic organism passage, and observed a small demonstration on electrofishing.



Monitoring of bull trout populations in the North Fork Lewis River has occurred annually since 1989. Monitoring activities are a collaborative effort between PacifiCorp and the Public Utility District No. 1 of Cowlitz County, Washington (Cowlitz PUD), federal, and state resource agencies. Fixed Passive Integrated Transponder (PIT) Antenna Arrays, seen in photo above, help detect fish presence and movement in streams. The Gifford Pinchot restoration team uses these on Rush Creek to track fish presence in newly opened side channels. **As of last data check two bull trout have already been detected in the side channel that did not have water for over 70 years.**



Song: Ridin' that Bull Trout



Well, saddle up, my friends, it's time to ride, A bull trout in these waters, we won't hide. With fins of silver, and scales that gleam, This river's champion, our wildest dream.

Ridin' that bull trout, holdin' on so tight, In the crystal waters, we'll ride through the night. Through rapids and shallows, we'll conquer the tide, On the back of a bull trout, our hearts open wide.

In the heart of the mountains, we'll make our stand, With courage in our hearts, and a rod in our hand. Bull trout, you're the legend, we've come to meet, Ridin' you wild, in this river so sweet.

Ridin' that bull trout, holdin' on so tight, In the crystal waters, we'll ride through the night. Through rapids and shallows, we'll conquer the tide, On the back of a bull trout, our hearts open wide.

In the wilderness, we find our thrill, As we ride the currents, with a fish so chill. In the spirit of adventure, we'll boldly go, On this bull trout journey, our spirits aglow.

Ridin' that bull trout, holdin' on so tight, In the crystal waters, we'll ride through the night. Through rapids and shallows, we'll conquer the tide, On the back of a bull trout, our hearts open wide.

As the sun sets low, and the stars shine bright, We'll remember this ride, in the pale moonlight. Ridin' that bull trout, it's a memory we'll keep, In the river's embrace, where our dreams run deep.

J.D.

Inspired by Hailu &... Bull Trout





DEEP GRATITUDE: A RIPPLE OF THANKS FOR GIFFORD PINCHOT AQUATIC RESTORATION!!!

THE GIFFORD PINCHOT IN COLLABORATION AND COORDINATION WITH NUMEROUS PARTNERS, ACCOMPLISHED AN IMPRESSIVE AMOUNT OF MEANINGFUL AQUATIC AND RIPARIAN RESTORATION IN 2023. WE APPRECIATE ALL THE WORK AND DEDICATION BROUGHT TO OUR PUBLIC LANDS FROM OUR EMPLOYEES AND OUR PARTNERS. IT TRULY TAKES ALL HANDS ON ALL LANDS TO BENEFIT OUR NATURAL RESOURCES.

BELOW ARE A FEW SPECIAL SHOUT OUTS:

GISPUS-YELLOWJACKET RESTORATION
THANK YOU TO OUR 2023 PROJECT PARTNERS.

A wave of thanks to the Cowlitz Indian Tribe folks: Justin Isle, Pete Barber, and Katie Fielding (took the below photo) for their outstanding collaboration and partnership on Yellow Jacket Phase 3. Their continued efforts have been instrumental in the successful completion of this project.



RUSH CREEK RESTORATION
THANK YOU TO OUR 2023 PROJECT PARTNERS.

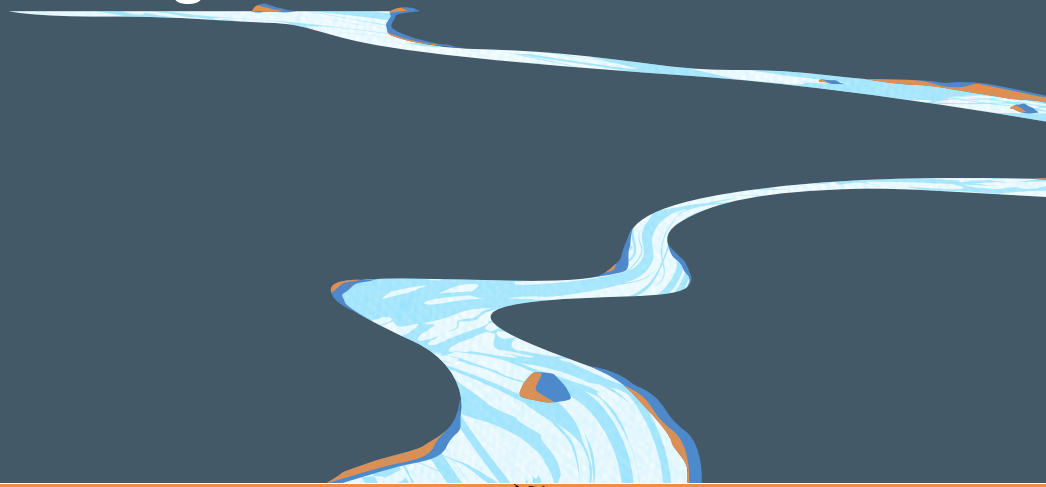
A cascade of thanks to Greg Robertson and Phillip Thompson for their unwavering dedication, commitment, and energy in working on Rush Creek and bringing that project to completion. Great teamwork!



COWLITZ INDIAN TRIBE



Fishy friends, let's keep the restoration ripple going! Together we'll turn muddy waters into crystal clear complex streams, one project at a time. Stay tuned for more exciting updates, and remember every project counts to restore nature's masterpiece. Stay hooked on restoration and keep those rivers **Flowing Forward!**



FLOWING FORWARD

PAGE 12



Forest Service
U.S. DEPARTMENT OF AGRICULTURE

**USDA is an equal opportunity provider, employer,
and lender.**