WNTI Small Grant Report

Project Title: Fostering Fisheries Conservation Through Youth

Grant Number: 2024 SG 9

Report Submission Date: 02/27/26

Project description: Salmon seem to get all the love in Western Washington. But not anymore, thanks to the generous grant funding from WNTI. The Fostering Fisheries Conservation Through Youth project increased awareness of, appreciation for, and stewardship of local native bull trout and coastal cutthroat trout. 86 students from Thurgood Marshall Middle School's Citizen Science Institute (CSI) program became active and engaged participants in native trout awareness and conservation through a combination of lessons, field trips, monitoring, and habitat restoration work.

This grant is also the gift that keeps giving, as the impact will go well beyond the 86 students' increased trout literacy and habitat restoration contributions. Future CSI program participants will benefit from the lesson improvements, new curriculum, and educational equipment enabled by this grant. The vegetation planted will continue to improve and support critical habitat function, and future habitat restoration efforts will benefit from new supplies acquired from this grant.

Project Goals/Objectives:

Approximately 90 CSI Students will:

- Receive at least one classroom lesson focusing on Coastal Cutthroat Trout, with an emphasis on the WNTI support "Coastal Cutthroat Trout Habitat Restoration Project"
- Gain hands on educational experience for restoration work, including learning how and why to propagate and plant native species.
- Learn what invasive species are and participating in removal efforts.
- Learn how to conduct water and habitat quality sampling.
- Learn how to analyze their data and present their finding in front of groups.
- Learn about a non-profit and citizen scient projects focusing on Coastal Cutthroat Trout and Bull Trout.

Approximately 16 vetted students will:

- Beta test and complete the USFWS's Elwha River Fish Tracking Curriculum
- Plot the migrations of tagged Bull Trout and Coastal Cutthroat Trout on Google's My Maps layers program with special attention given to migrations between two historical dam sites.
- Analyze their data, draw conclusions, and apply what they have learned to other proposed large-scale fish passage projects
- Travel to the Elwha River for two days of site visit tours and presentations by conservation scientists.

Project Budget:

WNTI Grant Expenses			
Category	**Expense Details**	**Amount**	**Use and notes:**
Gear	Vivosun Light System	$525	Greenhouse lights for plant propogation
Gear	Gardening Tools	$150	Plant propagation and habitat restoration
Gear	Uprooter	$200	Scotchbroom invasive plant removal
Gear	Browning Trail Cameras	$330	Riparian zone restoration monitoring
Gear	Snotel Survey Equip.	$343	Snow moisture content monitoring for Mt. Rainier snowpack monitoring (now annual)
Plants	Trees and shrubs	$690	For class restoration projects: Feb 2025
Plants	Trees and shrubs	$1,000	For class restoration projects: Dec 2025
Travel	Vans	$321	Kennedy Creek Salmon Trail
Travel	Vans	$606	Woodard Bay
Travel	Vans	$620	Billy Frank Jr - Nisqually Nat'l Wildlife Refuge
	Total Spent	**$4,785**	
	Total Budget	**$5,000**	

In-kind Contributions				
Office	**Staff**	**Hrs**	**Est value**	**Notes**
W WA Fish and Wildlife Conservation Office	1	60	$3,000	Multiple lessons via classroom visits and field trip support
Quilcene National Fish Hatchery	1	4	$200	Hatchery tour, Quilcene River tour, Moon Valley Restoration project, native trout.
Quinault National Fish Hatchery	1	4	$200	Steelhead and coho salmon for Salmon in the Classroom program.
Billy Frank Jr. Nisqually Nat'l Wildlife Refuge	2	8	$500	Class wetland tours. Content included importance of river and estuary for bull trout and coastal cutthroat trout.
Olympic National Park	2	4	$250	School tours of Elwha River and estuary. Included BT and CCT content
Mt. Rainier	2	4	$250	School tour and new snowpack sampling and monitoring project. Emphasis on consistent cold water for bull trout.
Oly Ecosystems	2	20	$2,000	Coordination and field trip support for restoration projects.
Washington Dept of Fish and Wildlife	1	8	$400	Field trip support
Thurston Conservation District	2	8	$400	Water quality monitoring and student "Green Congress" symposium support
Estimated Total Value =			**$7,200**	

Project Outcomes:

Education: The educational programming associated with the Fostering Fisheries Conservation Through Youth grant included classroom lessons and field trips. This included native trout content additions to existing lessons (salmon in the classroom, water quality, riparian zones, and fish dissections) and a new curriculum (Elwha Recover Project fish tracking). Field trips were similarly improved with the inclusion of native trout content. This includes the importance of the 4 C's, marine derived nutrients, and eggs, fry, and smolt as critical forage food for bull trout and coastal cutthroat trout.

Lessons:

- **CSI teacher led**: Water Quality, Salmon in the Classroom, and Riparian zone curriculums.
- **U.S. Fish & Wildlife Service Led**: Fish dissections, Salmon in the Classroom (supplemental lesson), fluvial geomorphology and habitat restoration (using Em2 River Table), and the Elwha Fish Tracking Curriculum.

Field Trips: Lesson specific. Does not include monitoring and restoration

- **Kennedy and McClean Creeks (2):** Chum salmon spawning, MDN, habitat, etc
- **Billy Frank Jr. Nisqually National Wildlife Refuge:** River and estuary wetlands emphasis
- **16-Student Multi Day Field Trip (Oct 2024):**
    - **Olympic National Park :** Emphasis on Elwha Recovery Project. This includes species (including BT and CCT), habitat restoration (fish passage, ELJs, and riparian zones), fish tracking, and population monitoring.
    - **Quilcene National Fish Hatchery:** Hatchery and Big Quilcene River Tours. Importance of this river and the salmon MDN to coastal cutthroat trout emphasis. Also discussed the Moon Valley restoration project and the WNTI contributions to the habitat assessments of the lower river. We also discussed the WNTI supported "Coastal Cutthroat Trout Habitat Restoration Project" and the importance of the Big Quilcene River and other Hood Canal tributaries to these populations.

- **Mt. Ranier National Park:** Emphasis on the importance of snowpack for cold water dependent bull and coastal cutthroat trout. Snowel survey equipment used for the first time to start tracking snowpack moisture levels. Other tracking data collected at the fixed station.

Monitoring: The CSI Students took part in multiple monitoring projects that emphasized the importance of biotic and abiotic tracking over time to assess population, water quality, and snowpack trends (short and long term).

- **WQ Monitoring:** Chemical & BMI monitoring on Deschutes River and Green Cove Cr.
    - October 18th 2024, Feb 14 2025, and October 17th, 2025
- **South Sound Green Congress:** Select students presented their WQ data to natural resource conservation professionals.
- **Mt. Ranier National Park:** Emphasis on the importance of snowpack for cold water dependent bull and coastal cutthroat trout. Snowel survey equipment used for the first time to start tracking snowpack moisture levels. Other tracking data collected at the fixed station.

Habitat Restoration:

Invasive Species Removal:

- **Grasslake Park**: On March 28th 2025 86 Citizen Science Institute members in partnership with the city's park department worked at the City of Olympia's Grasslake Park removing invasive species. This park contains the headwaters of Green Cove Creek and is a critical wetland system in northern Thurston County.
- **City of Olympia Squaxin Park Restoration project**: 86 CSI students and 10 adults spend 3 hours removing invasive species from the park. The park creek and estuary is important CCT habitat.

Plant propagation: All native plants for habitat restoration efforts, including Salal, Lodgepole Pine, Western Red Cedar, Ocean Spray Pacific Crabapple Hemlock Nootka Rose, Oregon Grape, Snow Berry, Shore Pine, and Black Cottonwood.

- Plants propagated by the class were used by both the classroom and provided to Oly Ecosystems for their efforts.
- The new Vivosun Light System purchased via this grant will boost our future plant propagation capabilities.

Native Planting:

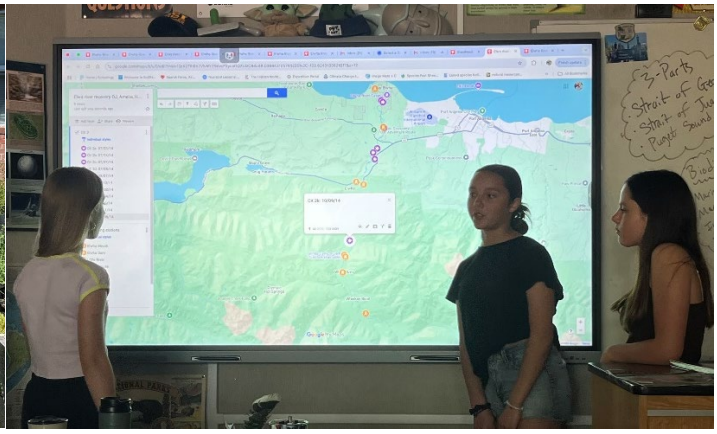
- **Deschutes Estuary Preserve Restoration**: On January 24th 2025 86 Citizen Science Institute members using native riparian plants from the nursery as well as other sources from our partner Oly Ecosystems spent the day planting over 500 trees and shrubs.
- **Campus 2 acre slope restoration project (Green Cove Creek Watershed):** Two events during the winter of 2025 86 CSI students removed invasive species (scotch broom, Himalayan Blackberry) and planted 200 native conifers and shrubs in an effort to create habitat and to mitigate campus run-off.

- Other student supported events took place at Green Cove Creek and Oly Ecosystems managed lands.

Photos:

Lessons:

Elwha Fish Tracking and Recovery: Students gaining experience using radio telemetry equipment (first image). Notice the student raised native plants for habitat restoration in the background. Second image: Students presenting their migration map and findings after the plotting real telemetry data that was collected on bull trout, steelhead, Chinook salmon, and Pacific lamprey.



Fluvial Geomorphology and Habitat Restoration: The U.S. Fish and Wildlife Service provided lessons using the Em2 River Model. Subjects covered included erosion, soil saturation, critical habitat, fish passage, and habitat restoration (ELJs and culvert replacements). The class was lent the river table for the remainder of the week. .

Field Trips:

Mount Rainier Snowpack Monitoring: Students gaining knowledge of the importance of snowpack for native trout experience in monitoring. Images 2-4 using the newly purchased Snotel survey equipment.




Water Quality Monitoring: Chemical and benthic macroinvertebrate sampling at Deschutes river (top three) and Green Cove Creek (bottom 2). Notice the completed fish passage project in the background.





Habitat Restoration: First image highlighting the native plant propagation efforts. The images below highlight invasive plant removal (ivy and scotchbroom) and native plantings.