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THE REDD

Dedicated to Restoring Salmon for Future Generations

THE NEWSLETTER OF THE SKAGIT FISHERIES ENHANCEMENT GROUP

IN THIS ISSUE:

Celebrating Fish Passage

By Alison Studley, Executive Director

Improving fish passage remains a high priority for salmon recovery in the Skagit watershed and around Washington State. Skagit Fisheries works with public, private, and tribal partners to identify, prioritize, and improve fish passage on creeks and waterways throughout the Skagit and Samish watersheds and even onto Whidbey Island. Many of these fish passage problems are caused by culverts (or pipes) that are put under roads to allow a creek to pass under the road. Over time, these culverts can become degraded and will need replacing. Many times these culverts are too small in diameter for a creek during a high water event to flow through the culvert. This can cause flooding and erosion around the pipe and create problems for the road and for salmon. This type of degradation can make it very challenging for a salmon to make its way through a culvert. Often these culverts are too small and the water is too swift during the fall months which impedes a salmon's ability to migrate upstream. Or sometimes, a culvert becomes "perched" above a pool due to erosion and a salmon struggles to jump into the pipe to reach habitat upstream. Sometimes culverts get squished, or sloped, and filled with sediment and debris making salmon migration difficult or impossible.

The inventories we are doing with our partners identify which of these culverts create fish passage problems for salmon. For the last decade, Skagit Fisheries has worked with County and Tribal partners to continue to update culvert inventories in the Skagit watershed and on Whidbey Island. In the Skagit, this group of partners has identified areas where culverts needed

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A perched culvert on Carpenter Creek creates a passage barrier to salmon migration

REDD: A female salmon uses her tail to dig a nest in the gravel. After she deposits her eggs the male fertilizes them. The female then covers the fertilized eggs and the resulting nest is called a redd.

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Volunteer Spotlight

2023 Volunteer of the Year

DEAN TILLES

1. Tell us a bit about yourself!

I am a retired sales and marketing guy who earned a chemical engineering degree from UCSD many decades ago. My wife and I live in Anacortes, and enjoy hiking, birding, and generally exploring the PNW.

2. How did you get involved in volunteering with Skagit Fisheries?

I am a 2023 alumnus of the Salish Sea Steward program, and learned of SFEG there. As an avid fly fisher, I'm always looking for ways to give back to the river I love so much.

3. What is your favorite kind of volunteer program that SFEG offers and why?

I have enjoyed all the programs - plant care at the nursery, classroom education, field trip support, tree planting, and spawner surveys! Each program really needs volunteers to succeed and that is reflected in how the programs are imagined and administered.

4. How has volunteering impacted you?

I learn so much from every program - plant identification, tree care, restoration strategies, fish biology. My appreciation for riparian environments only grows over time.

5. Anything else you'd like to add?

I really enjoy working with SFEG folks - AmeriCorps, interns, staff. Their energy is reflected in the care they bring to the work they do.

Dean with Lucy DeGrace


2023 Volunteer of the Year Dean (left) with 2022 Landowner of the Year Loren Fuell

FISH PASSAGES – CONT'D FROM PAGE 1

to be inventoried to assess whether or not the culverts meet current standards to allow for salmon to swim upstream (and downstream). Once the culverts have been assessed, we have worked to prioritize groups of culverts to remove and replace with salmon friendly structures. One goal of this effort is to work in stream systems where we can remove multiple barriers to salmon migration on one stream. By working on replacing multiple barriers in one stream we hope to open more miles of habitat for salmon.

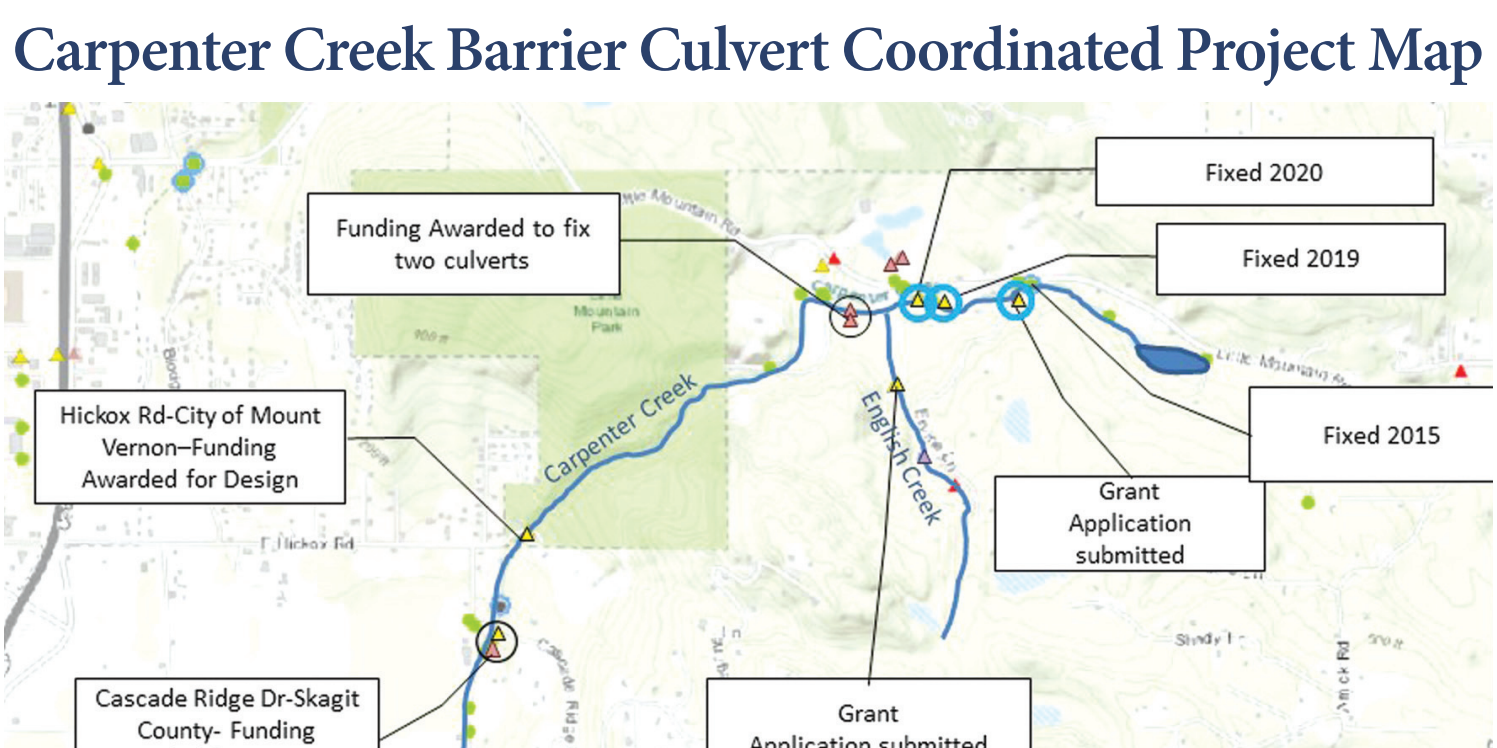
We are excited about the partnerships this inventory work has formed with local landowners. One example of this is in the Carpenter Creek watershed. Here, we are working with the City of Mount Vernon, Skagit County, and multiple private landowners to remove all the known remaining barriers to salmon migration in the Carpenter Creek watershed. We have received funding to start this work and have submitted grant applications for additional funding that will hopefully enable all this work to occur over the next few years.

Improving fish passage is not unique to Washington State.

After 30 years of doing habitat restoration work, we have opened 100 miles of habitat for salmon and steelhead in our creeks and waterways around the Skagit. We expect this amount of habitat to keep growing every year as we work with partners to fully open more creeks to salmon migration.

Improving fish passage is not unique to Washington State, in fact, improving waterways for migration of fish is of great importance worldwide– so much so that a day called World Fish Migration Day is now being observed. This year World Fish Migration Day will be on May 25th when we will join organizations and people around the world celebrating the restoration of free flowing creeks for migrating fish around the world. You can learn more about the work to restore migration for fish worldwide at WorldFishMigrationDay.com.

Carpenter Creek Barrier Culvert Coordinated Project Map



The Importance of *Pocket Estuaries*

By Yuki Reiss, Restoration Ecologist

When people think about salmon habitat, often the first thing that comes to mind is forested rivers or deep blue ocean, but estuaries are an important transition habitat along the way. As baby salmon (fry) hatch out of their nests (redds) in the Skagit River and its tributaries, they will eventually move downstream and out into the Puget Sound and Pacific Ocean, during which time they are turning into saltwater-adapted "smolts".

These young fish need a safe, bountiful place to grow as they prepare to move into deeper ocean waters, and most species prefer the comfort of an estuary. An estuary is the place where freshwater and saltwater meet, varying in salinity based on tide levels and amount of flow from the river. The Skagit River has a large tidal estuary area, though the habitat has been greatly reduced through diking for agricultural purposes and housing development.

What happens when there isn't room for all the smolts in the Skagit delta? These smolts then keep traveling out in the Sound, but they still need a safe place to grow. This is where pocket estuary habitat is critical. Our tribal partners at the Skagit River System Cooperative (SRSC; http://skagitcoop.org/) completed a large-scale study on the importance of pocket estuary habitat for recovery of endangered Skagit River Chinook salmon. Pocket estuaries along the shore of the mainland or nearby islands are small estuaries, connected to small streams or wetlands.

Skagit Fisheries Enhancement Group is working on two pocket estuary projects, based on the knowledge of how important these "mini" ecosystems are to long term salmon marine survival.

The first project is on Fidalgo Island, in Deception Pass State Park, in Bowman Bay. There is a small, ~7 acre wetland adjacent to the bay that has been isolated from tidal influence by a berm built for a popular trail that accesses Lighthouse Point and other areas of the park. SFEG has funds from the Salmon Recovery Funding Board (SRFB) and the Estuary and Salmon Restoration Program (ESRP) to collect data on how to best restore this estuary wetland and for some initial restoration designs. Recent storm damage to the trail will potentially speed up restoration opportunities.

We will be working closely with our partners at WA State Parks and the NW Straits Foundation (NWSF; https://nwstraitsfoundation.org/) who are

managing other restoration work at Bowman Bay. SFEG is helping NWSF with fish monitoring in the bay 1-2 times monthly through all of 2024-please contact us if you are interested in volunteering to help! This monitoring will help us understand when and how juvenile salmon are using the bay habitat, as well as the forage fish they depend on. We are also working with partners at Pacific Birds Habitat Joint Venture (https://pacificbirds.org/) to make sure restoration efforts provide benefits for birds as well as fish.

The second project is a pocket estuary located on the east side of Whidbey Island, on Race Lagoon. This is a ~20 acre, mainly saltwater lagoon with freshwater input from two small, ephemeral streams draining from adjacent marshy habitat on private land. SFEG has a SRFB grant for design of new culverts to allow better connectivity with this freshwater habitat. We are also working with adjacent landowners to explore the possibility of future restoration of the freshwater habitat. SFEG and our partners at SRSC are conducting monthly monitoring on the lagoon and nearshore habitat to document juvenile salmon use, and we are collecting tissue samples from any Chinook salmon that will allow us to determine their river of origin.

SFEG is excited to be working on projects to enhance salmon habitat in pocket estuaries!

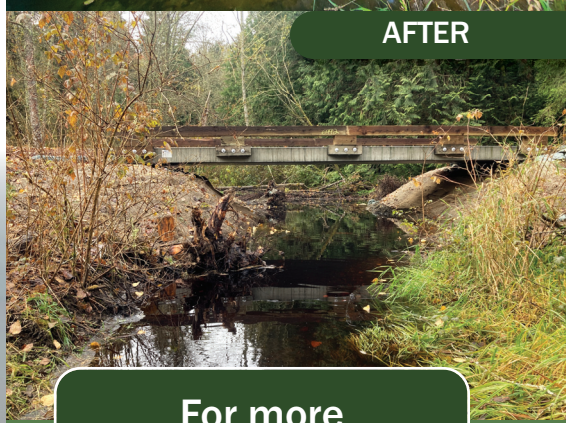
Seining at Bowman Bay

A juvenile Chinook salmon found at Race Lagoon

SFEG and NW Straits Foundation staff examine critters in a seine at Race Lagoon

Culvert Replacement FUNDING

Do you have a road or driveway on your property that crosses a stream? Skagit Fisheries Enhancement Group can help landowners obtain funding to replace undersized culverts that block fish passage. Miles of stream are inaccessible to fish because of barrier culverts – our goal is to help restore declining salmon and steelhead trout populations by replacing culvert barriers with new structures that allow fish to migrate into upstream habitat.



For more information contact:
360.336.0172
culverts@skagitfisheries.org
SkagitFisheries.org/culverts

Stick Them in the Ground, *and They Will Grow*

By Muriel Troka, Field Technician – Crew Lead

Whips, stakes, and cuttings are several terms for the simple, yet successful method of 'live staking' to grow trees and shrubs. Certain species native to the Pacific Northwest will grow new plants from cut sections of branches planted into moist soil. Willow, Cottonwood and Dogwood tend to have high survival rates, and are most commonly used in our riparian plantings. Field Technician Kelin Doner and I have had many jovial live staking days along the Skagit this planting season, that I look back on as some of my favorite days in the field. There is an admirable simplicity to taking a branch, sticking it in the ground, and returning that spring to find that little branch bursting with new growth. This method is suitable for our especially wet restoration sites and works well for stabilizing eroding banks with fast and abundant root growth. Live stakes thrive in harsh conditions where many other species struggle, as they become easily established in standing water and with minimal maintenance, can hold their own against Invasive Reed Canary Grass. With the combined effort of our field staff, WCC Crew, and volunteers, Skagit Fisheries will have planted over 20,000 live stakes this planting season alone. I look forward to visiting these sites for maintenance this spring, and uncovering these stakes as they begin the impressive transformation from cutting to tree.

Live Stakes

By Kelin Doner, Restoration Technician

Willow to wetland
Your branches bring forth new life
A high stakes mission

Interns and AmeriCorps are vital to Skagit Fisheries

These young adults are passionate about serving their communities and making a difference for the future of salmon. Funds are needed to increase the number of opportunities and the diversity of individuals who participate. Unpaid internships can only attract those who can afford unpaid positions. With your help, we can create more opportunities for ALL those interested.

Donate now to support future conservation leaders.

www.SkagitFisheries.org/ways-to-give

Scan the QR code above to explore options, visit www.SkagitFisheries.org/ways-to-give or call the office at 360-336-0172

BECOME A MEMBER
Members make salmon recovery possible. Help ensure successful salmon restoration efforts continue by becoming a member today.

DONATE
Show your commitment to the future stewardship of our local watersheds by making a donation today. Consider a recurring donation!

VOLUNTEER
We recruit and train volunteers to achieve increased public awareness for salmon habitat restoration. All projects are based on learning through hands-on activities.

STOCK / IRA GIFTS
Make your gift an investment in the future of Salmon.

LEGACY GIVING
Make a lasting impact on the future of Salmon.

PLAN A FACEBOOK FUNDRAISER
Organize a Facebook Birthday Fundraiser in support of Skagit Fisheries.

DONATE A USED CAR
Vehicle pickup and transportation are free. Fill out the form and we do the rest.

FRED MEYER
Shop through Fred Meyer Community Rewards.

Skagit Fisheries Enhancement Group is a 501(c)3 nonprofit organization.
All contributions are tax deductible to the extent that the law allows. Tax ID#: 94-3165939

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RETURN SERVICE REQUESTED

EARTH DAY 2024

SCAN THE QR CODE TO LEARN MORE AND RSVP.

We will provide tools and gloves.
Please wear shoes you don't mind getting muddy!

Plant a tree on Earth Day with Skagit Fisheries Enhancement Group!

RESTORING SALMON FOR FUTURE GENERATIONS
SKAGIT FISHERIES

When: April 20th, 2024 from 10am-2pm

Where: Riverfront Park in Sedro-Woolley
901 River Rd, Sedro-Woolley, WA 98284