

GREEN/DUWAMISH AND CENTRAL PUGET SOUND (WRIA 9) IMPLEMENTATION TECHNICAL COMMITTEE



WRIA 9 Implementation Technical Committee Meeting

August 20, 2025 | 9:30 am – 11:30 am

[Click here to join the meeting](#) or call in (Teams audio only) [+1 425-653-6586](tel:+14256536586), [185643467#](tel:+185643467)

Meeting ID: 212 285 313 251

Passcode: t9wk6N

9:30 **Welcome & Introductions**

All

Miro activity

We'll do a brief introduction activity to get to know each other and refamiliarize with the WRIA 9 Miro board.

9:45 **Puget Sound Juvenile Salmon Offshore Monitoring Program**

Liz Duffy, LLTK

Presentation followed by Q&A

Mike Crewson, Tulalip Tribes

The Tulalip Tribes and Long Live the Kings (LLTK) have partnered over the past five years to conduct annual offshore monitoring in Puget Sound. The crew spends two weeks each summer on a purse seiner fishing vessel, traveling from the San Juan Islands to the southern end of Puget Sound and Hood Canal to gather biological data from salmon and other marine life. Researchers sample fish and environmental conditions at 18 locations, and collect data on salmon abundance, age, growth, diets, and food supply. These surveys take a snapshot of the Puget Sound ecosystem and salmon in the early marine portion of their lifecycle. This work is part of a broader effort to create a long-term, Puget Sound-wide monitoring network. So far, the research crew has traveled 200 nautical miles and sampled 9,209 fish (including salmon from 20 different stocks).

10:55 **Watershed Updates**

All

Miro activity

Bring your updates for the Miro board watershed map! If you'd like to add your updates in advance, the board is linked here:

https://miro.com/app/board/uXjVLVsw89g=?share_link_id=300176352315. The watershed map is in frame 3, titled "WRIA 9 Round-Robin". You can also email updates directly to Iris (ikemp@kingcounty.gov) if you prefer.

Please note – you do **not** need to enter your email in the Miro prompt. If you select the "Enter board now" button without typing your email, it will let you into the board!

11:30 **Adjourn**

WRIA 9 ITC web page: <http://www.govlink.org/watersheds/9/committees/ImpleTechCmte.aspx>

Participant list:

Chapin Pier, Chester Bennett, Chris Gregersen, Liz Duffy, Erik Rigaux, Fletcher Levy, Halley Kimball, Heidi Watters, Iris Kemp, Jackie Weber, Jenn Stebbings, Joshua Hopkins, Julian Douglas, Katie Simpson, Kollin Higgins, Marc Marcantonio, Mary Ramirez, Matt Goehring, Mike Crewson, Natane Moore, Nathanael Overman, Nik Novotny, Rowena Valencia-Gica, Suzanna Smith

Puget Sound Juvenile Salmon Offshore Monitoring Program

[\(link to slides\)](#)

Project Background

The first marine year is a critical growth period for Chinook salmon. Growth over the first marine year and size in July in Puget Sound correlate positively with survival to adult return. Survival is linked to feeding and growth. In the Salish Sea, there are spatial differences in salmon food supply (zooplankton and fish). For Chinook, the shift to piscivory is associated with enhanced growth. Salmon are gape-limited predators; the shift to piscivory is size-dependent.

Offshore monitoring for juvenile salmon, salmon prey, and salmon growth is a critical data gap in Puget Sound. This project developed an offshore monitoring program that builds off prior offshore monitoring efforts and complements existing freshwater (smolt trap), estuary, and nearshore monitoring projects in Puget Sound.

Goals & Objectives

The offshore monitoring program is intended to be an annual check on conditions: physical conditions (water parameters), food supply (zooplankton), fish (salmon metrics and other fish counts) and analysis to understand mechanisms and identify indicators of salmon population health and survival. The overall goal is to monitor limiting factors for salmon and improve forecasting ability for adult returns.

Survey Design

Two week surveys (10 fishing days per year), sampling ~20 locations in marine areas 7-13.

- CTD sampling – water temperature, dissolved oxygen, salinity
- Zooplankton tows
- Purse seine sets

Results to Date

- Fish species caught: herring, chum, Chinook, coho, pink, surf smelt, walleye pollock, river lamprey, three-spine stickleback. See slides for other, rarer catches.
- Catch distributions vary by region and year
- Fish caught range in size from 65 mm (young of year herring) to 178 mm (coho).
- Chinook sizes vary by region and year. Puget Sound is a mixing area for Chinook; many fish from north regions are caught in south regions and vice versa.
- Chinook caught are 70-90% hatchery-origin fish. The dataset reflects 15+ natural-origin Chinook populations.

- Crab and fish dominate Chinook diets, dependent on size of the Chinook. The length threshold for piscivory varies by region and year. Size of herring (predominant fish prey) varies by region and year.

Outputs & Collaborations

This program hopes to collaborate with other programs looking at toxics, feeding hotspots, herring populations, dissolved oxygen, zooplankton, and more. The program intends to generate annual survey reports and annual synthesis reports as well as presentations to watersheds and regional groups.

Next Steps

The program has necessarily focused on piecing together funding to support ongoing surveys. Program leads are continuing to explore sustained funding sources and potential collaborative funding models. If surveys are maintained over time, building this long-term dataset will contribute to ecosystem indicator development for Puget Sound, similar to the successful NOAA's Ocean Conditions Indicators Trends Program ("stoplight" model) for the coast.

Q&A

- Any sockeye encounters?
 - Not as juveniles. Every so often encounter an adult. Seems like sockeye have a different life history – sampling design isn't intended to catch them.
- Is anyone currently using size and growth in adult return forecasting?
 - Not in Puget Sound. Some of the salmon indicators for the coast include salmon abundance in June and factor in size and condition.
- Any sampling in low light or adverse conditions?
 - The Salish Sea Marine Survival Project purse seines (a precursor to this program) did some dusk sets to target herring. The current program has not done this but does have some incidental low light condition sets. The 2025 survey was (by chance) in the midst of a large dinoflagellate bloom with very low water clarity.

Further questions? Contact Liz Duffy (eduffy@lltk.org) and Mike Crewson (mcrewson@tulaliptribes-nsn.gov).

Watershed Updates



Ecology water
quality grant
application is
open!
Applications due
September 3.

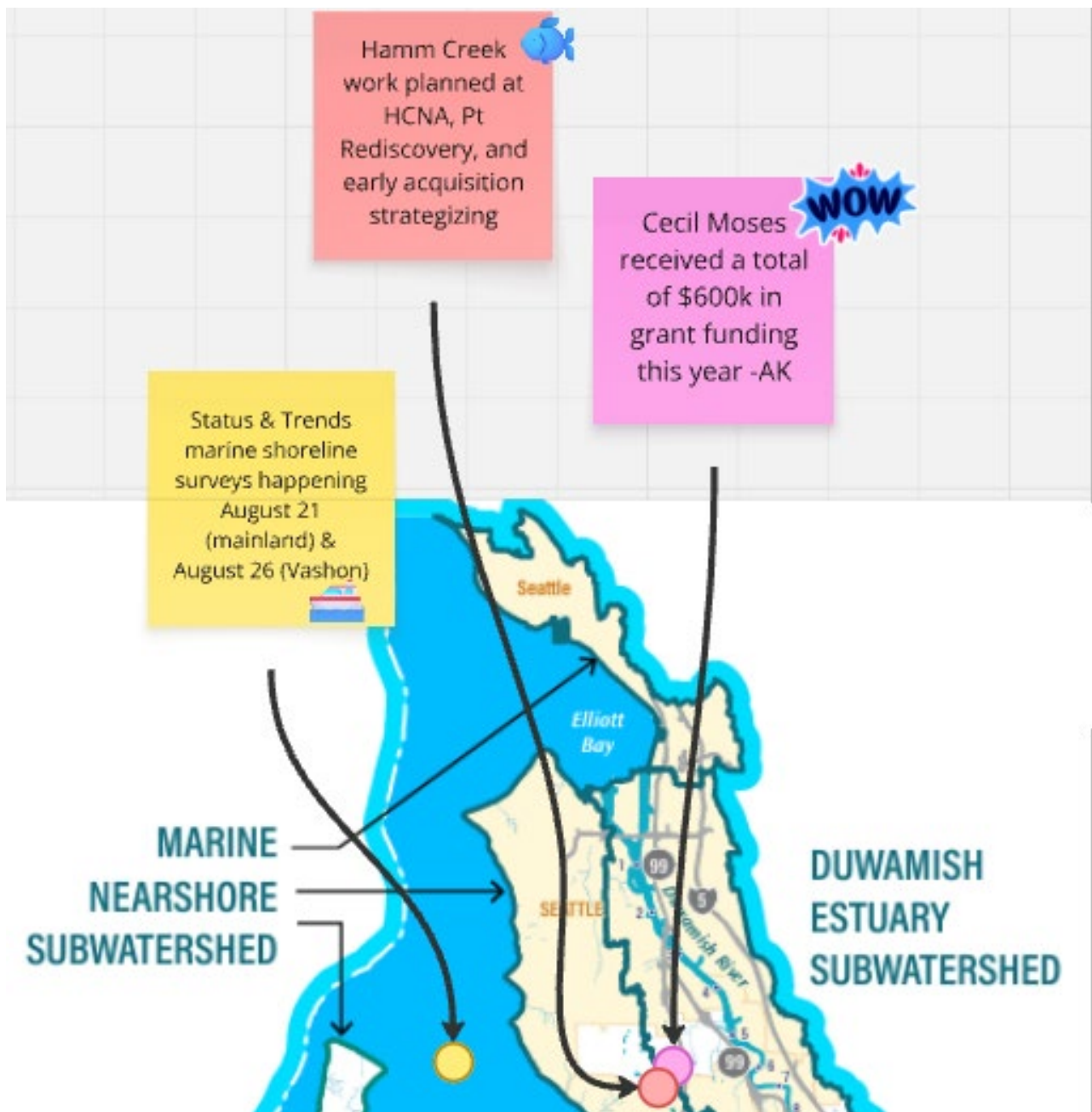


Lower green
river sediment
study received
full requested
amount -AK



14 of 17 ILA
partners have
approved
2026-2035 ILA
Renewal





Federal delegation
update meeting at
HAHD on Aug 19



Washington
DC trip to
meet with
USACE Sept
22-24



WRIA 9 Library – ITC Autobiographies

[Learn more about Mystic, Connecticut \(i.e., the poison ivy scourge of Julian's life\).](#)

