

Puyallup-White River LIO Quarterly Meeting: Fish Passage Barriers
March 26, 12:00-2:00pm
Virtual Zoom Meeting

Welcome, Purpose, & Agenda Review

Cindy Haverkamp, PWR LIO Chari kicked off the meeting with a quick round of online networking and an overview of the agenda.

I. Overview of Research on the Effects of 6-PPD on Salmon

Nathan Ivy, Washington State University Extension. View Nathan's presentation [here](#).

Nathan provided an overview of his research at Washington State University (WSU) Extension to determine the mortality rate of adult and juvenile coho salmon due to exposure to 6-PPD, a chemical found in particulate matter from tires. When 6-PPD interacts with ozone it forms the organic chemical 6PPD-Quinone which ends up in urban runoff during rain events. 6-PPDQ levels are particularly high during spring rainstorms, causing ecosystem runoff mortality syndrome (URMS) in coho salmon which often leads to death. In his research, Nathan is mimicking pre-storm conditions in the lab using water from the research site, Miller Creek to simulate what is happening during spring storms. This research indicates that coho are exposed to sustained pulses of toxicity from 6-PPDQ, leading to 81.4% mortality in juvenile coho salmon, emphasizing the importance to monitor this phenomenon.

II. Fish Passage Barrier Efforts to Improve Fish Migration in Pierce County

Liz Winter, Washington State Department of Transportation. View Liz's presentation [here](#).

Liz presented on the Washington State Department of Transportation (WSDOT) Fish Passage Program that was born out of the 2013 permanent injunction set forth by the U.S. District Court ruling in favor of the northwest Washington tribes asking that Washington repair or replace culverts that impede salmon and steelhead migration. The goal is to open 90% of blocked habitat by 2030. In WRIA 10/12 that makes up the Puyallup-White River Watershed, there are 12 corrected injunction barriers, 1 project under contract, 21 projects that are in the design and scoping phase, and 29 that have a future delivery plan for injunction barriers. Once the new construction is implemented, they are inspected on a 5-year cycle unless there are issues with the culvert which would bump the inspections up to occur annually. Successful fish passage barrier removal projects in the Puyallup-White River Watershed include the 2020 Minter Creek project, the Purdy Creek project, and the Pussyfoot Creek project from 2021.

III. Pierce County Culvert Inventory Program

Sean Goldsmith, Pierce County. View Sean's presentation [here](#).

Sean shared an overview of the development of the Pierce County Draft Fish Barrier/Culvert Replacement Prioritization List developed by various Pierce County departments that serves as a dynamic and reflexive representation of fish passage barrier priorities at the state and federal level. The goal of developing this list is to seek federal and state grants to implement these projects and conduct a needs assessment which was informed in-part by information shared by WDFW and WSDOT to

understand the implications of culvert replacement at the watershed scale. Fish barrier projects were categorized by a ranking criteria ranging from tier 1 to tier 6 with tier 1 serving as the highest priority projects. Out of the 854 total Pierce County-managed culverts, so far, 24 of them are planned or active. The draft culvert prioritization projects data is represented in the [Culvert Inventory Prioritization Map](#) developed by Pierce County and allows PWR LIO members to stay up to date on the status of Pierce County fish passage barrier replacement projects.

IV. Seeking Participation in Ecosystem Health Research in the Puget Sound Region

Krista Harrington, Oregon State University.

Krista provided an overview of her dissertation research focused on the roles of expertise in climate action. This research is broken into two phases; Phase one involves the characterization of expertise being utilized by decision-makers. Phase two will consist of communicating with experts to determine barriers they face in facilitating climate action. Krista is seeking participation from PWR LIO members for a 45-minute interview to understand how and where folks obtain climate change adaptation information and how it’s used in decision-making. Please contact krista.harrington@oregonstate.edu to indicate your interest in participating in this research.

V. PWR LIO Updates

- 2026-2030 Action Agenda Update – Drafts will be shared with the LIOs early this summer via the newsletters. If you have experience related to the various topics outlined in the upcoming Action Agenda, the PWR LIO would appreciate your participation in the review process. Please contact Haley (hmorris@rossstrategic.com) and Kristen (kdurance@rossstrategic.com) if you would like to be involved.
- LIO Collective Action Plans (Healthy Shorelines) - Healthy Shorelines has been determined as the next LIO Action Plan topic voted on by the ten LIOs throughout Washington. LIO Action Plans serve as a bridge between regional strategies and local work to ensure that funding is being allocated to support local work. Using a simple table, LIO Action Plans highlight the connection between pressures and solutions and include a clear project action, estimated cost, and capacity needs. In the coming weeks, PWR LIO members will be given the opportunity to participate in a categorization activity to identify specific project actions in Pierce County to support healthy shorelines.

Next Meeting

The next quarterly PWR LIO meeting is scheduled for June 11, 2025, from 12-2pm.

List of Participants

Name	Agency
Abby Borge	Puyallup Tribe
Ashley D. Mocoorro Powell	University of Washington
Cindy Callahan	Tacoma-Pierce County Health Department
Cindy Haverkamp	Tacoma-Pierce County Health Department
Desiree Radice	City of Tacoma

Elizabeth McManus	Ross Strategic
Emile Ancelet	Pierce County
Kim Rydholm	WA State Department of Transportation
Kyler Higgins	WA State Department of Transportation
Lindsay Tuttle	Tacoma-Pierce County Health Department
Lisa Spurrier	Pierce County
Liz Winter	WA State Department of Transportation
Marco Pinchot	Pierce County
Marty Stump	Tacoma Parks
Monea Kerr	Puget Sound Partnership
Nathan Ivy	Washington State University Extension
Robby Wright	City of Sumner/PRWC Board
Sean Goldsmith	Pierce County
Tom Kantz	Pierce County
Haley Morris	PWR LIO Assistant Coordinator