

Northwest Water Research Initiative

The Northwest Water Research Initiative (<https://www.fs.usda.gov/research/pnw/centers/nwri>) focuses on developing and supporting shareable knowledge to assist resource managers and society in increasing the resilience of watersheds to rapid environmental change.

Background

- Kicked off in 2023, the Northwest Water Research Initiative was designed with input from partners in the land management and policy making communities.
- It's a highly interdisciplinary, partner-driven, 4-year initiative with an emphasis on co-producing knowledge that's applicable to resource management.
- The initiative has 3 themes: water quantity and quality, aquatic ecology, and aquatic-riparian ecosystem management and restoration. It encompasses more than 20 projects to date.

Research Areas of Emphasis

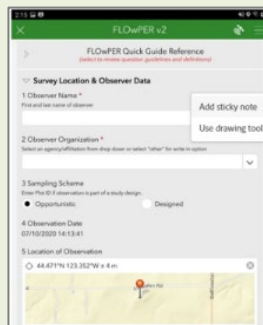
- Streamflow; water quality; impacts of extreme events.
- Effects of climate change on aquatic ecosystems and species; distribution and diversity of species; productivity and resilience of First Foods.
- Effects of traditional and novel valley floor restoration on groundwater, streamflow, stream temperature, fish growth, productive, and diversity; decision support tools and data with spatial information on streams, riparian areas, and foodscapes.

Highlight

FLOW PERmanence Mobile Application

<https://www.fs.usda.gov/research/pnw/products/dataandtools/tools/flowper-field-app>

- Addresses the need for standardized, easy to implement, and widely accessible field observations about the presence or absence of surface water.
- Developed by U.S. Forest Service and U.S. Geological Survey researchers in collaborations with resource managers with the U.S. Forest Service and Bureau of Land Management land managers.



A portion of the FLOWPER interface on a mobile device.

Highlight

Meadow Creek Integrated Restoration Project

- Goals: restore terrestrial and aquatic ecosystems, support tribal First Foods and critical ecological services, understand system responses to natural and human activities.
- Involves resource managers and researchers from tribal, federal, and state agencies.



In-stream sampling as part of watershed monitoring.

Current Activities

- **Scientific research** focused on increasing the resilience of watersheds to rapid environmental change and extreme events and understanding their impacts on novel ecosystems with highly variable conditions.
- **Engaging with partners** such as land managers, policy makers, and communities across the Pacific Northwest to understand their needs and provide opportunities for partners to shape the research focus.
- **Development of a strategic plan** for the initiative that incorporates perspectives of researchers and partners.

Who Benefits

- Managers who need information about streamflow conditions, flow permanence, and the effects of wildfire, extreme events, and restoration on watersheds.
- Managers who need information about the distribution and resilience of fish populations.
- Researchers working to build knowledge with partners.
- The general public seeking to adapt to a rapidly changing world.

Learn More

Visit us online to learn more about the Northwest Water Research Initiative, its researchers, and partners at www.fs.usda.gov/research/pnw/centers/nwri or contact:

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