

Focus on: Watershed Health Monitoring 2023



Elochoman River, Wahkiakum County

Stream surveys in the Lower Columbia Region during 2023

The Washington State Department of Ecology's Watershed Health Monitoring program assesses streams and rivers across the state to obtain a consistent, objective picture of habitat and biological conditions. We track these conditions over time to answer important questions about the overall function and health of our watersheds.

Our scientists determine watershed health in Washington's streams and rivers by analyzing the monitoring data for each region. We assess the key factors and conditions that affect the continued success of aquatic species.

Surveys cover biology, chemistry, and physical habitat

During our site visits, we collect biological, chemical, and physical habitat data. The status of the aquatic animals and their habitat gives us insight into how the watershed is functioning. The chemical and physical habitat data gives us a complete picture of stream and riparian conditions.

- Biological species (fish, amphibians, macroinvertebrates, algae)
- Chemical parameters (nitrogen, phosphorus, total organic carbon, metals, total suspended sediment)
- Physical habitat characteristics (riparian vegetation, slope, stream substrate, woody debris)

Randomized sampling builds a wide view of the watershed

Watershed Health staff use a statistical survey design to monitor the status and trends of an entire watershed. This allows us to accurately describe large geographic regions. Instead of surveying every stream, we randomly choose sample sites that represent the overall stream network.

During 2023, the Lower Columbia Region will be sampled

We sample eight regions across the state on a rotating basis. In 2023, we will survey 50 streams and rivers in the Lower Columbia region from July 1 through October 15. We previously sampled this region in 2010 and in 2014. The following map shows all of our previous sampling locations.

Field crews respect private property

We ask landowners for permission to access streams on their property. We do not enter private lands without permission.

Watershed Health monitoring program, since 2009

We established the Watershed Health Monitoring program to meet the goals of the state’s 2009 Comprehensive Monitoring Strategy for Watershed Health and Salmon Recovery. Our monitoring program was designed with direction from Washington’s Monitoring Forum, a multiagency group responsible for coordinating actions related to monitoring watershed health and recovery of aquatic species. You can learn more and find data at <https://ecology.wa.gov/WatershedHealth>.

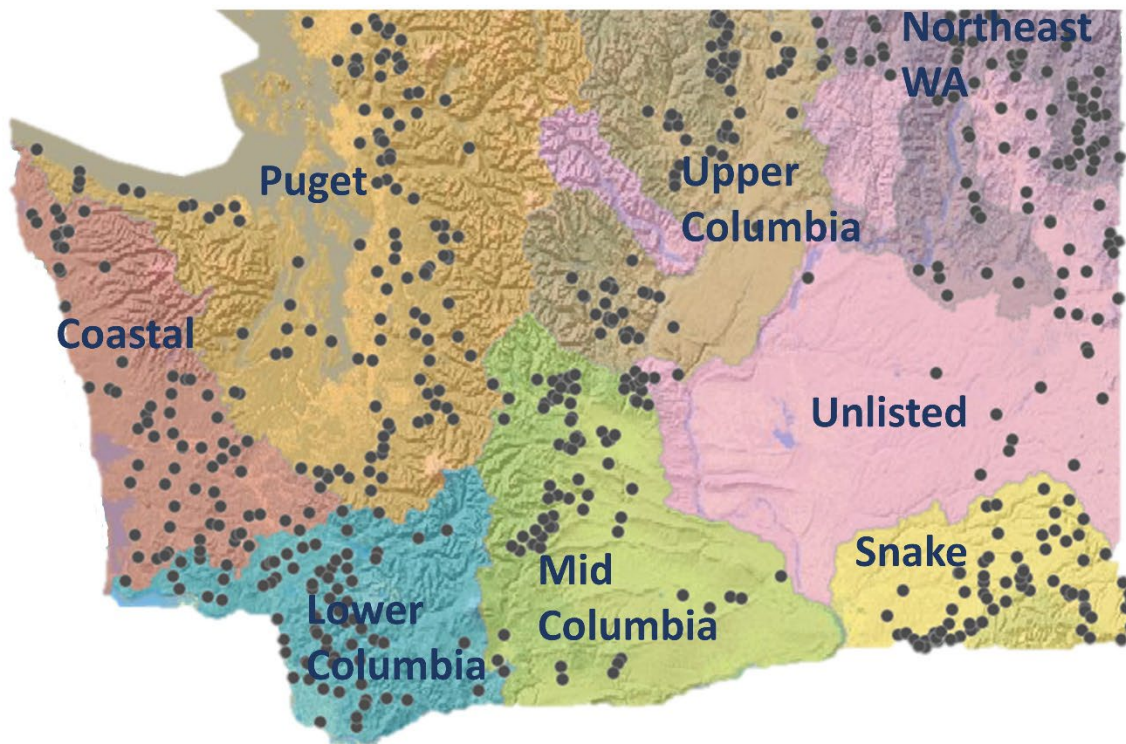


Figure 1. Map of 591 sites sampled during 2009-2021, within Washington’s eight Status and Trends Regions. Sites are indicated by dots.



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