

Focus on: Watershed Health Monitoring 2022



Twin Creek, Jefferson County

Stream surveys in the Coastal Region during 2022

The Department of Ecology's Watershed Health Monitoring (WHM) 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 communities 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.

- physical habitat characteristics (e.g. riparian vegetation, slope, stream substrate, woody debris)
- chemical parameters (nitrogen, phosphorus, total organic carbon, metals, total suspended sediment)
- biological species (fish, amphibians, macroinvertebrates, algae)

Randomized sampling builds a watershed-wide view

WHM uses 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 2022, the project returns to the Coastal Region

We sample eight regions across the state on a rotating basis. In 2022, WHM will survey 50 streams and rivers in the Coastal region between July 1 and October 15. We previously sampled this region in 2010 and in 2014. The following map shows all of our previous sampling locations.

Ecology 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, since 2009

During 2009, we established the WHM program to meet the goals of the state’s 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>

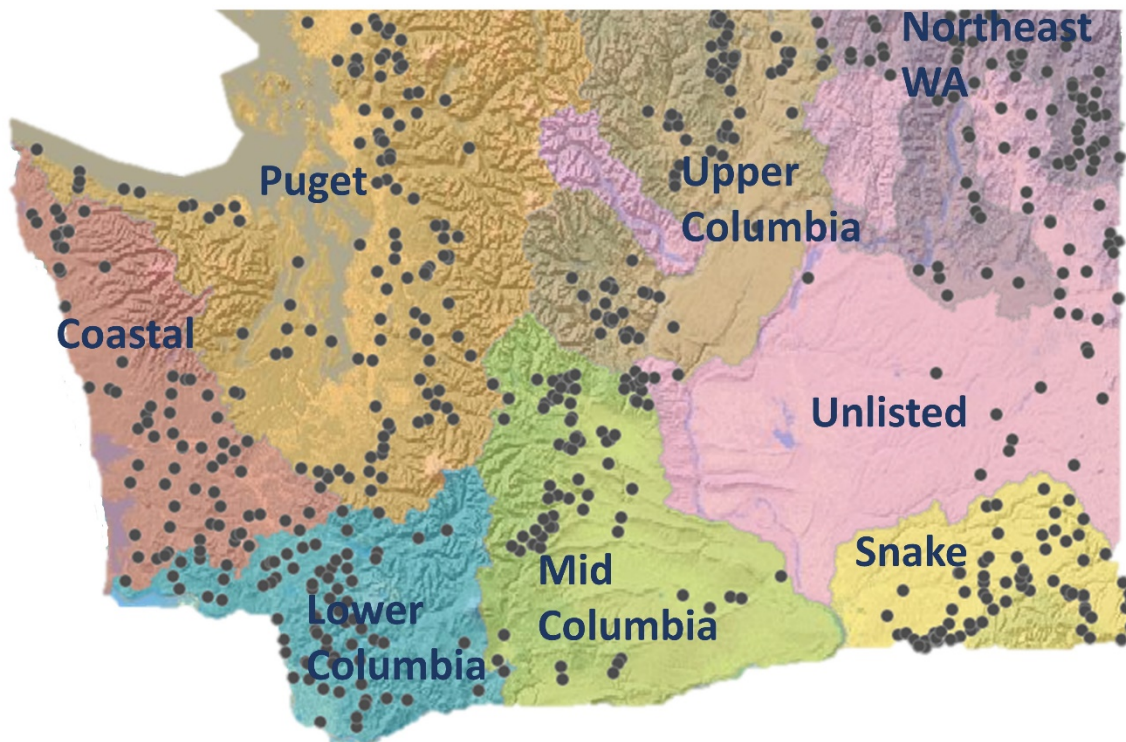


Figure 1. Map of 591 previously sampled sites during 2009 - 2021, among Washington’s eight Status and Trends Regions. Sites are indicated by dots.



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