

Focus on: Quilcene/Tarboo Watershed Study in 2025-2026



Little Quilcene River

Temperature trouble and harmful bacteria

Several streams in the Little Quilcene, Donovan Creek, and Tarboo Creek watersheds have fecal (poop) bacteria concentrations and temperatures that do not meet the state's water quality standards, according to data collected over the last 20 years. This means that portions of these creeks are either too warm to support fish habitat, could harm human or animal health, or both. The Washington State Department of Ecology (Ecology) is conducting a study in these watersheds to identify bacteria sources and the causes of high temperatures.

Study goals

- To better understand current water quality conditions in these watersheds by collecting measurements of temperature and bacteria, as well as for related water quality indicators such as pH, dissolved oxygen, and nutrients.
- To identify common sources of fecal bacteria in the study area, then develop and implement strategies to reduce concentrations in the watershed.
- To develop a computer model of stream temperatures to test how improving shade coverage in the watershed will improve fish habitat.

Fieldwork

Field staff will go out twice a month from late May 2025 to July 2026. Residents may see our vehicles parked near waterways as we collect a variety of data points through observation, field measurements, and water sampling for lab analysis. A few sites will have sensors installed that can continuously test water temperature, dissolved oxygen, or streamflow.

What we are doing

- **Sampling and measurements:** water quality samples, water chemistry measurements, and flow measurements.
- **Continuous monitoring:** (limited) temperature and/or dissolved oxygen loggers measure every 30 minutes while deployed.
- **Streamside habitat and channel surveys:** occasional stream surveys will measure stream-channel shape, inventory near-stream vegetation, and collect shade data.
- **Surface water flow:** stream stage gages will be installed at several sites to estimate stream flow throughout the watershed.

Where to see the results of the study

We will use the data we collect in 2025 – 2026 to write a technical report about the possible causes of high bacteria and temperature in the watersheds. Later, we will work with the community, local governments, and other partners to develop a restoration plan to improve water quality in the study area.

The technical report, restoration plan, and all data we collect will be published on Ecology's website.

Related Information

- Environmental Assessment Program
<https://ecology.wa.gov/science>
- Water Quality Assessment
<https://ecology.wa.gov/303d>
- EIM or Environmental Information Management database
<https://ecology.wa.gov/eim>



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To request an ADA accommodation, contact Ecology by phone at 564-669-3028 or email at eappubs@ECY.WA.GOV, or visit <https://ecology.wa.gov/accessibility>. For Relay Service or TTY call 711 or 877-833-6341.