

WA Department of Ecology
Environmental Assessment Program (EAP)

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Long-Term Water Quality Monitoring

Ecology has various different types of long-term water quality monitoring it conducts throughout WA State. The monitoring programs below are those that occur every year, separate from those special studies such as Total Maximum Daily Load (TMDL) or Effectiveness Monitoring (EM) studies. These include:

- River and Streams Water Quality Monitoring – Long-term ambient monitoring (Freshwater Ambient), looking at trends in stream health over time.
- River and Streamflow Monitoring – Streamflow gage stations with near real-time streamflow and water quality information.
- Habitat Monitoring – Ambient Biological and Watershed Health Monitoring
- Toxics Monitoring – Persistent Bioaccumulative Toxics (PBT) Monitoring, including Freshwater Fish Contaminants monitoring, Mercury in Fish Tissue, Lead and PBT contaminants in sediment cores.
- Invasive Aquatic Plant Monitoring – Statewide, annual monitoring.

River and Streams Water Quality Monitoring

Ecology's Environmental Assessment Program (EAP) conducts monthly water quality sampling throughout the state.

- Long-term/Sentinel stations:
 - Sampled monthly, every year and have been for multiple years, 10+.
 - Primarily sampled for trends, reference conditions, and to support other types of monitoring.
- Basin stations:
 - Typically sampled for only one year, three stations within the region per water year.
 - Water Quality staff or other Ecology staff identify certain areas that might be problem areas and where more information is needed.
 - Other criteria have to be met. The proposed sites go through a selection process to choose the final three basin stations for the water year.

Freshwater Ambient Monitoring and the Lower Yakima River Basin

Lower Yakima River Basin sites sampled in last 5 years:

| Site ID | Site Name | Type | Last Year Sampled |
|------------------------|----------------------------------|-----------|-------------------|
| 37A090 | Yakima River at Kiona | Long-term | 2020 |
| 37A205 | Yakima River at Nob Hill | Long-term | 2020 |
| 37L050 | Corral Cr @ Old inland Hwy | Basin | 2019 |
| 37A060 | Yakima River VanGiesen Bridge | Basin | 2017 |
| 37A120 | Yakima River and Euclid Bridge | Basin | 2017 |
| 37A180 | Yakima River at Donald Wapato Rd | Basin | 2017 |
| 37A070 | Yakima River near Richland | Basin | 2015 |
| 37A110 | Yakima River at Prosser | Basin | 2015 |
| 37A190 | Yakima River at Parker | Basin | 2015 |

Data is available at the Ecology's [Freshwater Information Network](#) (FIN).

Water Year 2021 sampling sites:

1. Yakima River at Kiona (long-term)
2. Yakima River at Nob Hill (long-term)
3. [Snipes Creek](#) near Mouth (basin, last sampled in 2011)

Parameters collected or measured:

- Monthly: pH, Conductivity, Temperature, Barometric Pressure, Dissolved Oxygen, Fecal Coliform/E.coli, Total Suspended Solids, Turbidity, Ammonia, Nitrate/Nitrite, Total Persulfate Nitrogen, Orthophosphate, and Total Phosphorus.
- Every other month, we sample for metals analysis. This includes: Hardness, Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Silver, and Zinc.
- Temperature dataloggers for continuous data collection at each site, air and water.