

# Health of Aquatic Life in Snohomish County Watersheds 2005-2014

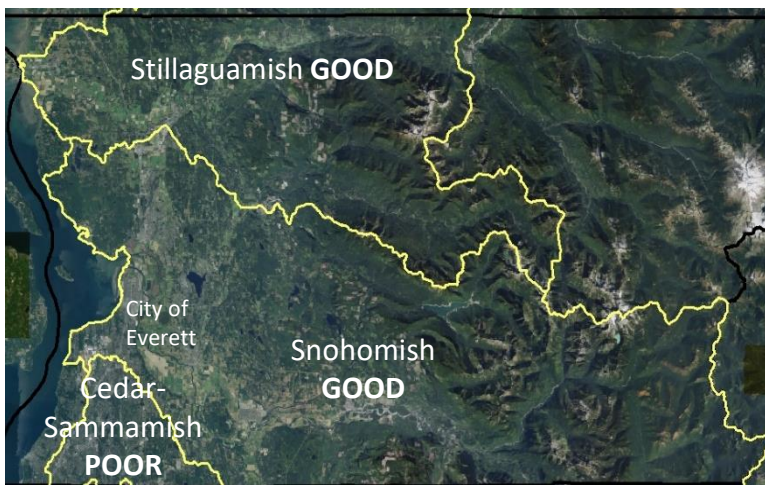
**Benthic macroinvertebrates** are small animals, including insects, worms, snails and freshwater mussels, that live in or near stream beds. The types and number of benthic macroinvertebrates can be used to gauge stream health. This is accomplished by using a tool called the Benthic Index of Biotic Integrity (BIBI) to create a score. Those scores are then put into one of five categories, ranging from very poor to excellent.



Immature Mayfly

Snohomish County Surface Water Management used benthic invertebrates to assess the health of streams in the Stillaguamish, Snohomish and Cedar-Sammamish watersheds. This work took place over a 10-year period from 2005 to 2014.

## Status & Trend of Benthic Macroinvertebrates in Snohomish County Watersheds



Health of stream bugs by watershed

**Stillaguamish and Snohomish:** In general, the benthic invertebrate community health is **good**. This means there may be a slight decrease in species sensitive to pollution and/or that the number of species may be less. Results also showed **no obvious trend** toward improving or declining benthic invertebrate community health.

**Cedar-Sammamish:** Benthic invertebrate health is consistently **poor**. This means there is less diversity and more species that can tolerate pollution. Results also showed **no obvious trend** toward improving or declining benthic invertebrate community health.

## Impacts to Benthic Macroinvertebrate Communities



### Urbanization

Increases in impervious surfaces, like roads and roofs, are associated with changes in stream bug communities.



### Water Pollution

Chemicals in the water can kill stream bugs and impact their ability to reproduce.



### High flows

Faster stormwater runoff can dislodge stream bugs from their homes.



### Loss of riparian plants

Riparian plants prevent chemicals from entering the water and slow down runoff that can harm stream bugs.

For more information visit [www.SOW.surfacewater.info](http://www.SOW.surfacewater.info)