PUGET SOUND
VITAL SIGNS

INDICATOR
FRESHWATER BENTHIC INDEX OF BIOTIC INTEGRITY

The Benthic Index of Biotic Integrity (B-IBI) describes the biological condition of stream sites and their surrounding habitat based on the diversity and relative abundance of the benthic (bottom dwelling) macroinvertebrates found at the site. Ten measures of biological condition are scored and summarized as the B-IBI, which ranges from a score of 0, indicating very poor stream condition, to 100, indicating excellent condition.

BIBI_2023_landscapePoint.png

TO LEARN MORE ABOUT THE VITAL SIGNS VISIT: **vitalsigns.pugetsoundinfo.wa.gov** OR CONTACT: **vitalsigns@psp.wa.gov**

Macroinvertebrate samples were collected from 718 sites across Puget Sound in the last five years (2018-2022). The map shows the biological condition category for each site based on its mean B-IBI score.

Indicator Progress

GETTING BETTER

Target Status

NO TARGET

Target

No targets are currently set for this indicator.

Data Source

Puget Sound Stream Benthos

Indicator Lead

Kate Macneale
Kate.Macneale@kingcounty.gov
King County

Last Updated

09/05/2023

Key Vital Sign Indicator Results

- Stream conditions are mixed across Puget Sound. The biological condition category at 718 sites ranged from excellent or good (41 percent) to fair (22 percent) to poor or very poor (37 percent).
- Over time, most B-IBI scores have either improved or remained stable. Analysis of trends at 188 sites with at least 10 years of monitoring data show that B-IBI scores improved at 22 percent of sites and declined at only 2 percent of sites. Scores at three-quarters of sites (76 percent) have not changed significantly over time.
- Overall, these trends are encouraging. While development has increased in the region, stream health appears to have improved in more than one of five streams and declined in only one of 50 streams. This may be due in part to stream and riparian restoration as well as historic and ongoing actions that aim to control and treat stormwater (see the Stormwater Strategic Initiative for more information).

CONTRIBUTING PARTNERS

King County

DEPARTMENT OF ECOLOGY State of Washington