Portland’s watershed monitoring program measures progress toward achieving the city’s goal of improving watershed health and establishes a base of scientific information the city uses to make decisions that affect watershed health. Healthy watersheds protect public health, make communities more livable, stimulate the economy and support native plants and animals. Maintaining healthy watersheds preserves valuable resources for future generations.

In addition to monitoring watershed health, the monitoring program also:

✓ measures the effectiveness of watershed protection and restoration actions;

✓ demonstrates city compliance with state and federal environmental regulations;

✓ enables the city to compare watershed health data locally and nationally; and

✓ supports city sewage treatment, stormwater management, and sewer construction and maintenance responsibilities.

**Monitoring Approach**

Portland bases its monitoring approach on the U.S. Environmental Protection Agency’s Environmental Monitoring and Assessment Program (see [epa.gov/emap](http://epa.gov/emap) for more information). The program ensures that Portland monitoring is consistent with nationwide watershed monitoring efforts, that Portland collects data according to the best available science, and that results can be compared to and combined with regional and national watershed health assessments.
Watershed Plan Areas
Portland and the four major streams that flow through the city are part of the Willamette River Basin. The city is divided into five watershed plan areas.

**Willamette** - includes Forest Park, downtown’s commercial core, industrial districts on both sides of the river, and Portland’s most densely populated residential neighborhoods

**Johnson Creek** - flows west from Boring to the Willamette River near Milwaukie

**Fanno Creek** – flows from Hillsdale to the Tualatin River

**Tryon Creek** - flows from Multnomah Village to the Willamette River near Lake Oswego

**Columbia Slough** - flows from Fairview Lake to the Willamette River near Kelley Point Park

Information Gathered
The city selects monitoring sites randomly from all Portland rivers and streams. Program staff sample 32 Portland sites per year. Field crews spend three to five hours at each site taking measurements and gathering data, such as:

- Water temperature, dissolved oxygen, nutrients, pathogens
- Water levels, velocity, and responses to precipitation
- Vegetation, stream bed composition, and bank condition
- Native and non-native fish, amphibian, and aquatic insect species

Staff at Portland’s Water Pollution Control Laboratory analyze the collected samples.

Monitoring Results
The city publishes its findings annually and compares the data gathered in previous years to evaluate changes in watershed conditions over time. The city posts annual monitoring reports at portlandonline.com/bes/watershed.

For More Information
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