

Water Quality – Freshwater: Overview

Water temperature, turbidity, and the level of pollutants determine the quality of freshwater. Water temperature can vary naturally from year to year depending on weather conditions, the amount of snow pack and the seasonal pattern of snowmelt. Clearing trees and other cover along the bank can cause water temperatures to exceed standards. Urban stormwater runoff is a major source of temperature variations in urban streams within the Puget Sound basin. Dams and the extraction of water for drinking, industrial, and other uses can also affect stream temperature. Turbidity is affected by natural variations in weather, snow pack and snowmelt. It is also affected by human disturbances such as stream diversions, bank protections, construction activities, and other disturbances. Pollutants to freshwater arrive via surface runoff. Developments adjacent to freshwater sources without proper stormwater management controls contribute to pollutant loading of freshwater bodies through stormwater discharge to the freshwater bodies.

The Department of Ecology regularly monitors water quality at a number of rivers and streams in the Puget Sound basin as part of the Puget Sound Ambient Monitoring Program (PSAMP). The Department of Ecology recently started reporting freshwater conditions using a Water Quality Index (WQI) for eight parameters in addition to a single overall WQI for each sampling station.