



**Shellfish Bed Closures Due to Pollution**

Clean water is the lifeblood of shellfish in Puget Sound. They filter large quantities of water as they feed and can also accumulate bacteria, viruses, and other contaminants. Safe, edible clams, oysters, and other bivalve shellfish are evidence of good water quality. Contaminated shellfish reflect water quality problems and can harm the people and animals that eat them.

**Hood Canal Dissolved Oxygen Problems**

Dissolved oxygen is crucial to sustain fish and aquatic life, which “breathe” it for survival. In Hood Canal, low levels of dissolved oxygen have resulted in fish kills and growing “dead zones.” While natural factors and water circulation play a role, nitrogen is the main pollutant causing low dissolved oxygen levels. Excess nitrogen levels cause excess algae growth. As the algae die and decay, it robs the water of dissolved oxygen and smothers marine life. Nitrogen pollution comes from wastewater treatment plant discharges, septic systems, some farming activities, and fertilizer and pet waste runoff from home lawns and gardens.

high: 5.95  
low: 0.44

DISSOLVED OXYGEN

**Toxic Cleanup Sites**

- cleanups in progress
- awaiting cleanup

When toxic pollutants get into Puget Sound, they can settle to the bottom, then work their way into the food chain and accumulate, ultimately threatening the entire ecosystem. Today, more than 5,700 acres of underwater lands in Puget Sound and Hood Canal exceed toxic level standards. Ecology is in the process of cleaning up 553 sites located within one-half mile of Puget Sound and has identified 115 more upland and aquatic toxic sites waiting to be cleaned up.

**South Puget Sound Dissolved Oxygen Problems**

Ecology is concerned that depleted levels of dissolved oxygen in some areas of South Puget Sound could trigger the same water-quality crisis bedeviling areas in Hood Canal. Recent studies have revealed low levels of dissolved oxygen levels in several key marine bodies – particularly Budd, Case, and Carr inlets.

high: 7  
low: 3

DISSOLVED OXYGEN

**Paved Surfaces**

When land is developed, surfaces get paved over creating a hard barrier that keeps rain and melting snow from soaking into the ground. Instead, water runs off roads, parking lots, rooftops, and other hard surfaces. As this “stormwater” flows across developed areas, it carries oil, grease, yard and garden chemicals, bacteria, and other pollutants that get into Puget Sound.

Hood Canal data courtesy HCDOP-IAM Science Team & Spatial Analysis Lab, School of Oceanography, University of Washington