Health of sediments in Commencement Bay improving

Local News

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OLYMPIA - Sediment samples the state Department of Ecology has collected from the bottom of Puget Sound's Commencement Bay show signs of improved environmental health compared to samples from identical locations nearly 10 years ago.

The findings come from a just-released Ecology study, "Urban Waters Initiative, 2008: Sediment Quality in Commencement Bay." The Commencement Bay sediment data collection is a follow-up to a previous Ecology sediment study at the same locations in 1999.
The new study found reduced levels of toxic metals in the sediments such as arsenic, copper, lead, mercury, nickel, silver, tin and zinc. It found reductions in cancer-causing chemicals known as polycyclic aromatic hydrocarbons, or PAHs. The study also found healthier populations of tiny sediment-dwelling life known as benthic invertebrates.

Efforts to reduce toxic chemicals in the environment are important because although pollution from industries, sewers and shipping has decreased, new pollutants from many hard-to-trace sources continue to threaten the bay. Rainwater runoff - or stormwater - is the leading source of pollution to Commencement Bay and all urban waters of the state.

"Healthy sediments are an indicator of overall ecosystem health," said Rob Duff, manager of Ecology's Environmental Assessment Program. "The sediments show us what kinds of pollution people are sending downstream into urban bays. This baseline and long-term monitoring work helps us learn if our strategies are working and what future investments we need to make to restore and protect Puget Sound."

"As pollution from people and land use increases, we are finding the best strategy is to control sources of pollution, as we continue to clean up contaminated areas. The state's marine monitoring program lets us know if these efforts are working," Duff said.
He added, "While these positive findings are encouraging, we know we have more work to do to control the sources of pollution entering the bay, including new and emerging contaminants."
David Dicks, executive director of the Puget Sound Partnership's said, "Monitoring tells us if we are making progress to bring life back to Puget Sound and the good news here is that we are. I credit all of our partners from citizen volunteers to local, state and federal levels, Tribes, as well as the industries and environmental groups. You are all helping us clean up and restore Commencement Bay."
Despite the progress, the study found that levels of plasticizers in the bay's sediments have increased. In addition, the study found no significant change in levels of some metals such as cadmium and chromium, PCBs and some types of PAHs.
In addition to the state study, the City of Tacoma has released its 2009 Stormwater Monitoring Report for the Thea Foss and Wheeler-Osgood watersheds. The report found trends showing

decreasing concentrations in total suspended solids, lead and PAHs over the eight-year study period. While these results are an indication of increasingly positive outcomes, other trends show no significant change.
"The City of Tacoma's experience in the Thea Foss watershed shows that it is possible to positively affect the quality of water discharged to our sensitive receiving waters. We are making a difference in the health of the waterway and the bay," said Geoff Smyth, of the City of Tacoma.

Commencement Bay became a Superfund cleanup site in 1983. The U.S. Environmental Protection Agency oversaw the cleanup of polluted sediments, and Ecology tackled controlling the sources of pollution as well as cleanup. As cleanup is progressing, the state has increased its efforts to prevent sources of pollution, protect cleaned-up sites and restore natural habitats.
Contaminants reaching the bottom of Commencement Bay, and all of Puget Sound, come from air pollution, contaminated stormwater runoff, and river sediments. Industries, municipal sewage treatment plants and internal combustion engines also add contamination.
Ecology is also examining sediment samples collected in the Bainbridge Basin (Sinclair and Dyes Inlets). The work will expand to Bellingham Bay in 2010, Budd Inlet in 2011 and to Port Gardner/Everett Harbor in 2012. Ecology finished a similar study of Elliott Bay in September 2009.

Just-out Ecology YouTube, "Marine Sediment Monitoring in Puget Sound"
www.youtube.com/watch?v=Mc-PPq4fZU8
Department of Ecology's Urban Waters Initiative, 2008: Sediment Quality in Commencement Bay
www.ecy.wa.gov/biblio/1003019.html
Summary of study "Focus on Puget Sound's Urban Bays, Sediment Quality in Commencement Bay, 1999 - 2008 www.ecy.wa.gov/biblio/1003021.html
City of Tacoma's 2009 Stormwater Source Control & Water Year 2009 Stormwater Monitoring Report for Thea Foss and Wheeler-Osgood Waterways www.cityoftacoma.org/Page.aspx?hid=14413
Department of Ecology Urban Waters Initiative Commencement Bay
www.ecy.wa.gov/urbanwaters/commencementbay.html
Ecology's Web site: http://www.ecy.wa.gov