

Sediment Investigation Report Available for Public Comment and Public Meeting Planned



A PUGET SOUND INITIATIVE site

**Reaching the goal of a healthy, sustainable Puget
Sound now and forever!**

In 2008, Ecology's Toxics Cleanup Program conducted a sediment study to investigate the health of the sediments in Oakland Bay. Ecology has summarized the results of the study in the Sediment Investigation Report, which is now available for public review and comment.

The Sediment Investigation Report contains information about:

- Location and amount of chemicals and woodwaste in the sediment.
- Amount of sediment movement and deposition in Shelton Harbor and Oakland Bay.
- Potential effects of sediment contamination on the health of creatures living on or in the sediment.
- Possible sources of dioxin found in sediment.

Ecology also partnered with the Washington State Department of Health (DOH) to investigate potential human health effects from contact with sediments and eating shellfish. DOH has determined that the levels of contaminants found in the sediments and shellfish in Oakland Bay pose a very low human health threat. Therefore, people do not need to reduce the amount of shellfish they eat or restrict their exposure to the sediment. DOH reports are available at <http://www.doh.wa.gov/ehp/oehas/consults.htm#Mason>. These documents are not part of this comment period.

Ecology Wants Your Input!

Ecology is asking for your comments on the Sediments Investigation Report. You are invited to:

- **Review** the report and **send** your comments in writing to Ecology for consideration. See box to the right for document locations.
- **Attend** a public meeting and open house on December 15, 2010. More information about this event can be found on page 4.

Comments Accepted

December 6, 2010 -
January 21, 2011

Submit Comments and Technical Questions to:

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SWRO Toxics Cleanup Program
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Public Involvement Information:

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Human Health Concerns:

Len O'Garro

WA Department of Health

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Document Review Locations

Shelton Timberland Library

710 W Alder Street

Shelton, WA 98501

Phone: (360) 426-1362

WA Department of Ecology Southwest Regional Office

300 Desmond Drive SE

Lacey, WA 98503

By appointment only:

Contact Debbie Nelson at

Debbie.Nelson@ecy.wa.gov or

(360) 407-6365

Ecology's Toxics Cleanup Website

http://www.ecy.wa.gov/programs/tcp/sites/oaklandBay/oaklandBay_hp.htm



Oakland Bay Sediments Investigation

Ecology investigated Oakland Bay and Shelton Harbor to better understand the extent of known contamination and determine if contamination was present in other areas. Ecology used several methods to determine the type and amount of contamination in the sediments.

WHAT WE DID

WHAT WE FOUND

SEDIMENT SAMPLING AND ANALYSIS

- ◆ Collected sediment samples from the surface and deeper layers (2-3 feet).
- ◆ Tested samples for the presence of chemical contamination.



- No samples had chemicals (from the state sediment standards list) above state standards.
- Dioxins were present in all sediment samples.
- Dioxin levels ranged from 1 to 902 parts per trillion (ppt). The highest levels were found in Shelton Harbor (in deeper layers).

DIOXIN SOURCE ANALYSIS

- ◆ Compared the types of dioxins found in Oakland Bay to those of known sources (for example, forest fires and paper mills) and from other areas of Puget Sound.



- The type of dioxins found in Oakland Bay were similar to those found throughout Puget Sound, but at higher levels.
- The dioxin types are most similar to those made from burning pulp mill waste and pentachlorophenol (wood treating chemical).
- Additional data would be needed to determine exact sources.

BIOLOGICAL TESTING

- ◆ Exposed marine life to sediments from the bay and harbor and measured health effects on these organisms.



- 50% of the sediment samples showed some level of toxicity for at least one of the types of tests done.

GEOPHYSICAL SURVEY

- ◆ Examined physical environment using sonar and other techniques.
- ◆ Estimated the location and amount of wood waste.



- There is very little sediment movement out of Oakland Bay.
- Nearly every core sample contained wood.
- Several hot spots (more than 20% wood per volume) were found near historic and current log rafting and wood processing activities.
- Small amounts of wood were widely distributed in the sediment throughout the study area except Hammersley Inlet.

Why This Investigation Matters

As part of Governor Gregoire's efforts to restore the health of the Puget Sound, Ecology's Toxics Cleanup Program is investigating sediment pollution in seven Bays. These bays include Oakland Bay, Budd Inlet, Port Angeles Harbor, Port Gardner, Port Gamble, Fidalgo and Padilla Bays, and Dumas Bay. The goal is to locate and clean up contamination to protect and maintain sustainable use of valuable natural resources.

Ecology chose Oakland Bay because Shelton Harbor has a history of heavy industrial use and previous studies have provided evidence of contamination. In addition, Oakland Bay is one of the most productive shellfish growing areas in the country.

Industrial uses of Oakland Bay resulted in sediment contamination in Shelton Harbor and surrounding areas. Chemicals, woodwaste, and waste water from timber and wood product manufacturing industries have been discharged into Oakland Bay.

Previous investigations revealed the presence of several contaminants above state standards including; metals, semi-volatile organic compounds, petroleum products and wood waste contamination.

Early actions in embayments throughout the Puget Sound will contribute significantly towards overall restoration efforts. Ecology's work will help with efforts to restore the health of the Sound by 2020.

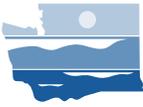


Sediment sample collection in Oakland Bay

What Happens Next?

- Ecology will continue to evaluate sediment study data and determine the best next steps.
- Ecology will talk with interested community members, environmental groups, and other agencies to explore how potential cleanup actions could be integrated with habitat restoration projects and other activities in Oakland Bay.





DEPARTMENT OF
ECOLOGY
State of Washington
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Oakland Bay Sediments Investigation

Shelton, WA

Ecology Seeks Public Comment on Sediment Investigation Report

Public Comment Period

December 6, 2010 - January 21, 2011

If you need this publication in an alternative format, call (360) 407-6300. Persons with hearing loss, call 711 for Washington Relay Service. Persons with speech disability call 877-833-6341.

Join us for a Public Meeting and Open House!

December 15 at the Shelton Civic Center
525 W. Cota, Shelton
Phone: (360) 426-9731

Join us to hear more about what Ecology found during the recent sediment investigation and next steps!

6:30 - 7:00 p.m.	Open House
7:00 - 8:00 p.m.	Presentation
	Question and Answer Session
8:00 - 8:30 p.m.	Open House

Ecology staff will be available to answer your questions. Light refreshments will be provided.

