South Sound Regional Background Study

You're invited!
Technical Workshops
May 29 & 30, 2018

May 29, 2018, 11:30 – 1:00 p.m.
Multipurpose Room B
222 Columbia St NW
Olympia, WA

May 30, 2018, 11:30 – 1:00 p.m.
Johns Prairie Room PUD3
2621 E Johns Prairie Road
Shelton, WA

For more information contact:

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Special accommodations:

To request ADA accommodation including materials in a format for the visually impaired, call Ecology at 360-407-6300 or visit https://ecology.wa.gov/accessibility. People with impaired hearing may call Washington Relay Service at 711. People with speech disability may call TTY at 877-833-6341.

Final Report Complete

The Department of Ecology (Ecology) has completed a study of regional background levels of contaminants in marine sediments of the South Puget Sound. These regional background levels will be used to set sediment cleanup levels, inform cleanup decisions, and identify potential areas that may require cleanup in the future. Ecology will use this study to implement the Sediment Management Standards (SMS), which is the state's cleanup rule for sediment.

Natural Background vs Regional Background

Because some contaminants have natural sources (for example, dioxins can come from volcanic eruptions), even a "pristine" area might not be free of some chemicals. The amount that occurs from natural sources is called natural background. Natural background values for South Puget Sound can be found in Ecology's Sediment Cleanup User's Manual II (SCUM II, Publication NO. 12-09-057).

If we removed or treated enough contamination to return a cleanup site to natural background levels, that site could be re-contaminated by diffuse, non-point sources of pollution like car exhaust or stormwater runoff. The level of contamination that includes these non-point sources is called regional background.

Sources of Data

Background levels of contaminants can vary between regions around the state. Areas with contamination from a known source, such as Shelton Harbor could not be used in the study. However, the SMS allows sampling in other similar geographic areas. To establish the South Puget Sound regional background, Ecology analyzed existing data from areas surrounding Squaxin Island, south of Harstine Island, and five inlets: Budd Inlet (including the Olympia waterfront), Oakland Bay and Hammersley Inlet (including Shelton Harbor), Henderson Inlet, Eld Inlet, Totten Inlet, and Oyster Bay. After screening, the final data points used are shown in Figure 1 and Figure 2.

Final Report available for review at these locations:

Ecology's Southwest Regional Office
300 Desmond Drive SE Lacey, WA 98503
By appointment only:
Contact Susie Baxter,
PublicDisclosureSWRO@ecy.wa.gov,
Or (360) 407-6365

Final Report Website
https://fortress.wa.gov/ecy/publications/SummaryPages/1809117.pdf

Budd Inlet Website
https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=2245

Oakland Bay and Shelton Harbor Website
https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=13007

Results

Ecology used the existing data to calculate regional background for dioxins/furans and carcinogenic polycyclic aromatic hydrocarbons (cPAHs). The regional and natural background levels are presented in Table 1.

Ecology will use these regional background levels when setting cleanup levels in the following inlets and bays:

- Budd Inlet: cPAHs, dioxins/furans
- Shelton Harbor : cPAHs, dioxins/furans
- Oakland Bay outside Shelton Harbor: dioxins/furans

Ecology will consider whether regional background applies to other areas of South Puget Sound on a site-specific basis.

Table 1. Regional and natural background levels for South Puget Sound

Analyte	Regional Background	Natural Background
Dioxins/Furans	19 ng/kg TEQ	4 ng/kg TEQ
cPAHs	78 µg/kg TEQ	21 µg/kg TEQ

Figure 1. Final cPAH data set

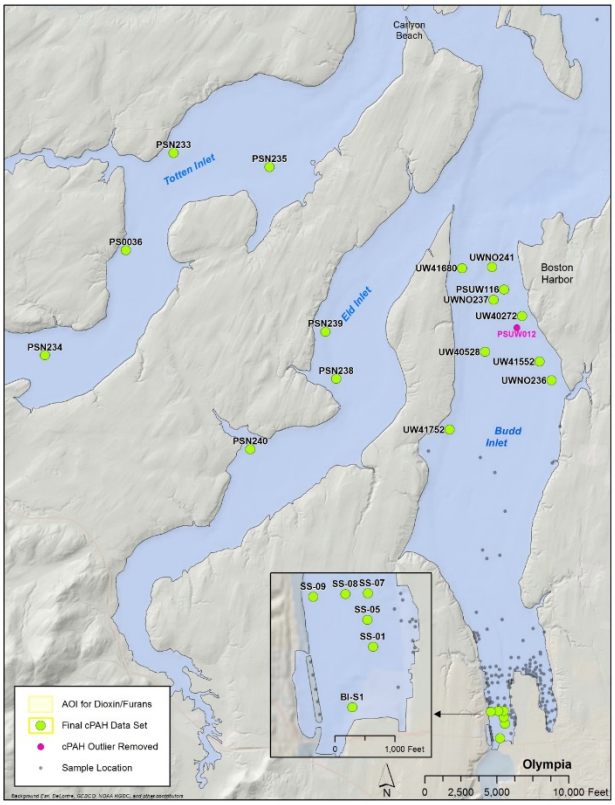

Figure 2. Final Dioxon/Furan data set