Albert Jensen & Son Shipyard
Port of Friday Harbor

May 30, 2018

John Evered, Leonard Machut

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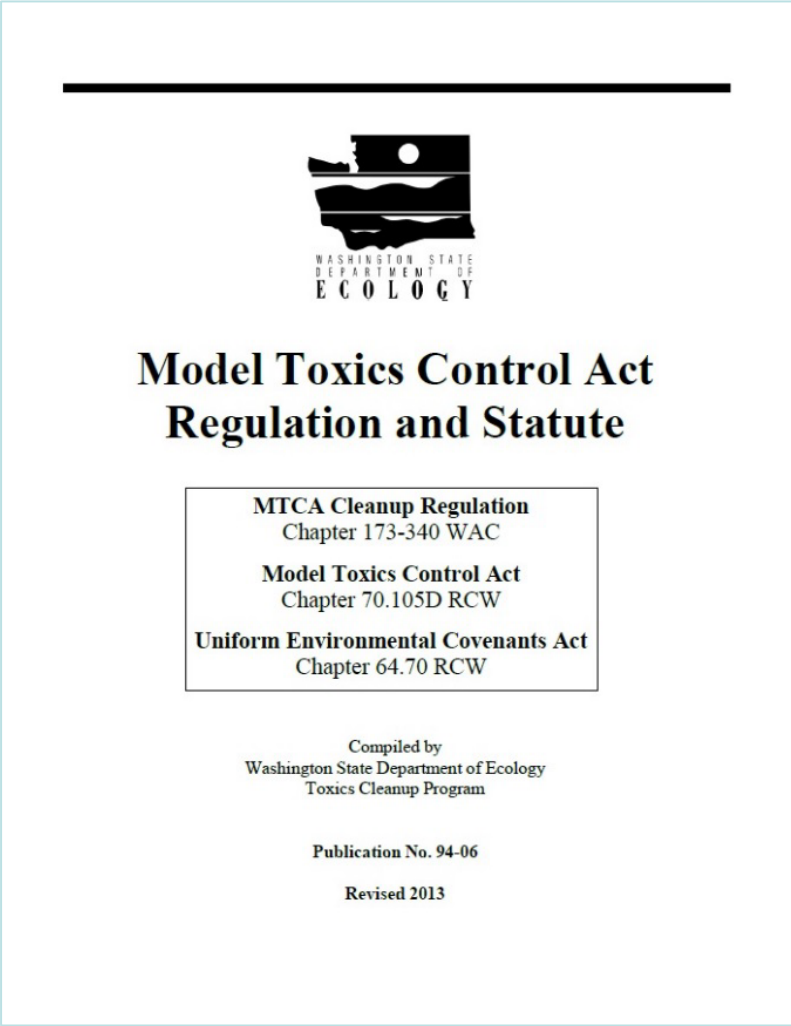
MTCA and SMS Cleanup Laws

Model Toxics Control Act (MTCA)

MTCA establishes administrative processes and standards to identify, investigate and clean up facilities where hazardous substances have come to be located. Soil and upland focus.

Key principles of cleanup law:

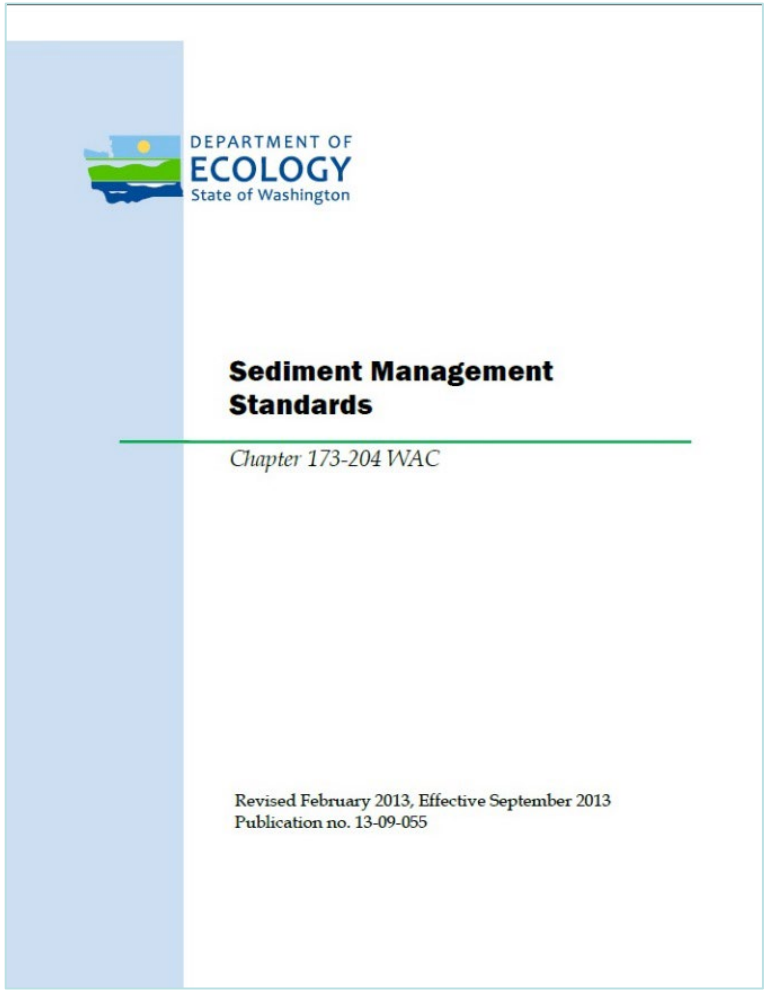
- Streamlines cleanup approach
- Permanent remedies
- Joint & several liability
- Polluter pays
- Public participation



Sediment Management Standards (SMS)

Chapter 173-204 WAC

Washington state's rule for cleaning up contaminated freshwater and marine sediment



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Sediment is unique

Risks from sediment contamination are different than upland:

- We eat a lot of fish and shellfish.
- We have thousands of miles of freshwater and marine shorelines (i.e. a lot of sediment).
- The majority of the population lives near water.

Clean sediment is important to:

- Protect people who eat fish and shellfish and recreate in water.
- Protect valuable natural marine and freshwater resources.
- Maintain attractive recreational opportunities and promote marine outdoor economic opportunities

Who is liable (Potentially Liable Person)?

- Owner and operator at the time of release
- Current owner or operator with any ownership interest or exercises any control
- For abandoned facilities, anyone who owned, operated or exercised control before abandonment
- Credible evidence that persons who owned the hazardous substance and arranged for disposal, treatment or transport (i.e. generators)

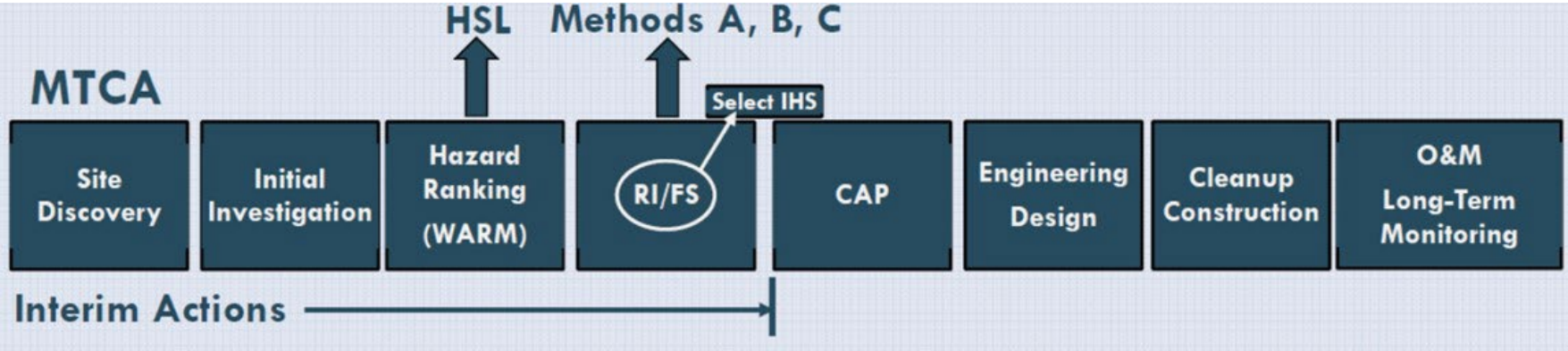
What is scope of liability?

- Joint and several: Any PLP may be liable for entire cleanup
- Strict: PLPs are liable for cleanup regardless of who was responsible for pollution

MTCA Cleanup Process

- Site discovery
- Initial investigation
- Site hazard assessment & ranking
- Interim action (if necessary)
- Remedial Investigation/Feasibility Study
- Cleanup Action Plan

Our Goal:
Constructively work with PLPs to move efficiently through this process to reach mutual goals



MTCA Cleanup Process

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Our interactions with other Ports

- Open communication
- Understanding economic development and a clean environment can coexist
- Public participation is key in efficient cleanups

Puget Sound Initiative

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- Began in 2005 - 2020 goal
- Assessing contamination baywide: 7 priority bays
- Over 100 contaminated nearshore sites
- Restoring and preserving the health of Puget Sound
- Working with Tribes and partners on human and environmental health and natural resources

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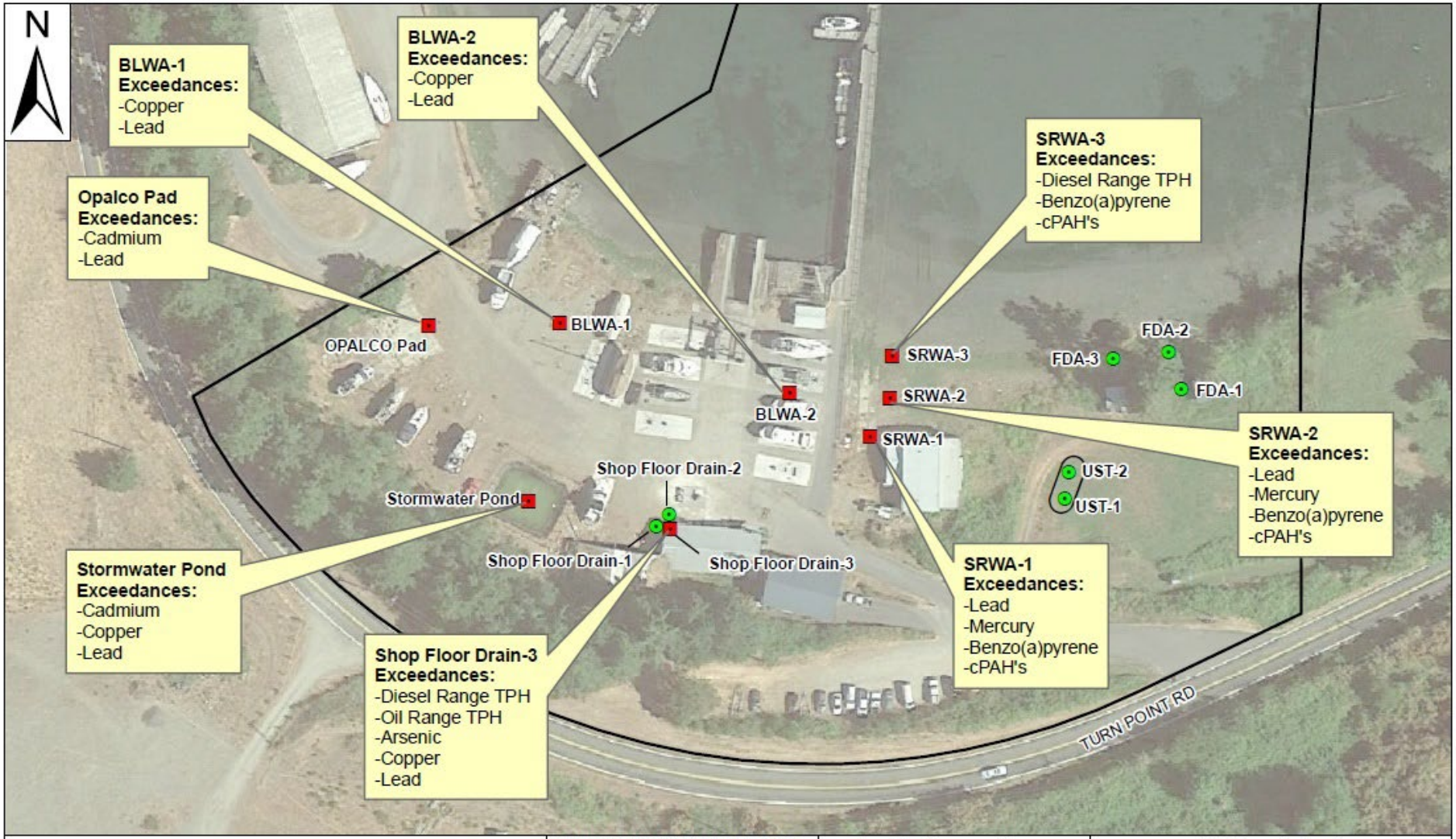


Soil Sample (no criteria exceedance)

Soil Sample (exceeds one or more criteria)

Subject Property

Former UST

All data are approximate and should be used for relative location reference only.

2017 Google Earth aerial photograph.

0 25 50 100 Feet

1 inch = 100 feet

Prepared for: PORT OF FRIDAY HARBOR

Prepared by: whatcom ENVIRONMENTAL

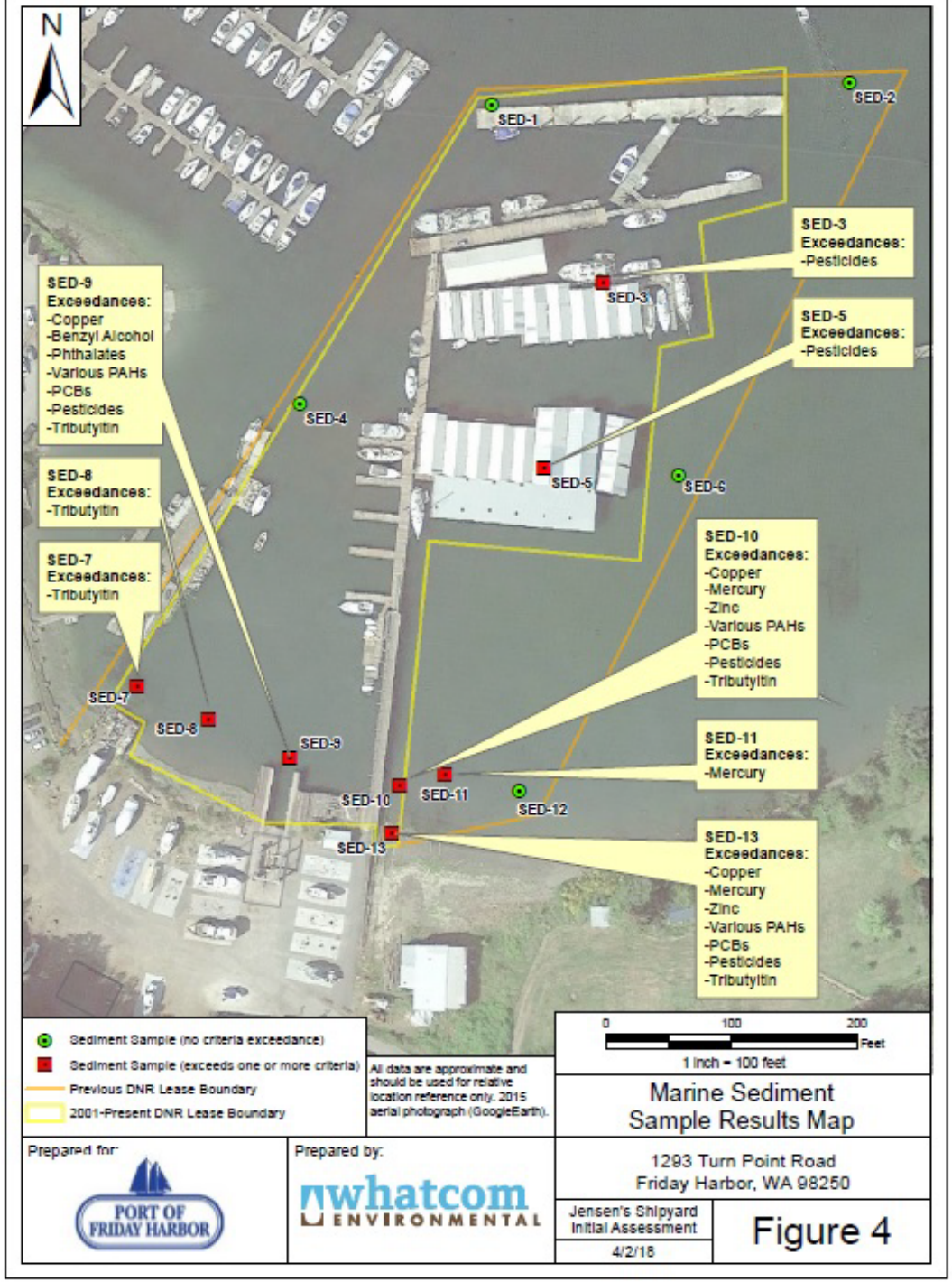
Upland Soil Sample Results Map

1293 Turn Point Road
Friday Harbor, WA 98250

Jensen's Shipyard Initial Assessment

3/27/18

Figure 3




Former Fish Processing/Storage
Everett Engineering Buildings
Everett Shipyard Bld.
Former Net Dipping
Former Net Shed (Removed)
Travel Lift (Haul Out)
Marine Railway
Former Tidal Grid
AST
UST
Approx. Outfall Locations

Everett Shipyard

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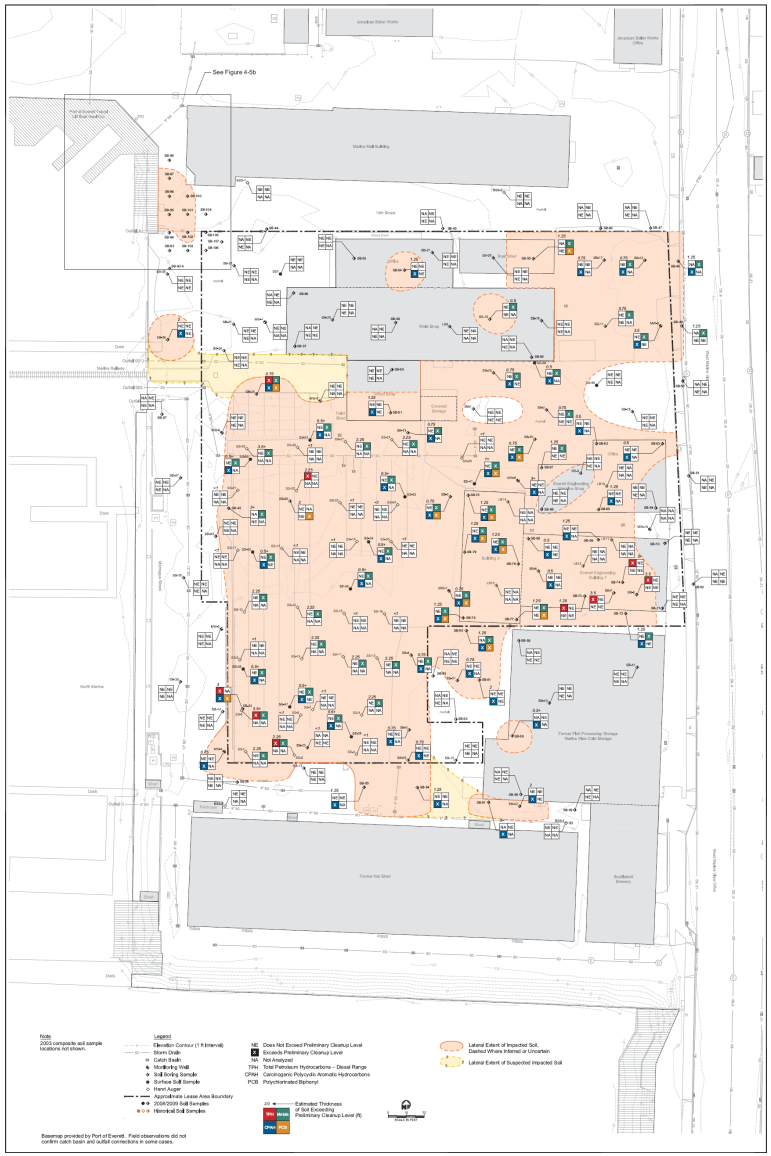
Extent of contamination: 2.7 acres

Soil results

- Metals and PAHs found widely
- TPH and PCBs found in some locations
- TPH found near travel lift bulkhead
- PCBs found in the vicinity of the Everett Engineering Building
- Mostly surface contamination (0 to 3 feet)

Groundwater results

- Dissolved arsenic exceeded its cleanup level at two locations
- Dissolved nickel and zinc exceeded cleanup levels in only one location
- Diesel Range Petroleum exceeded at one location near the travel haul out area



Everett Shipyard

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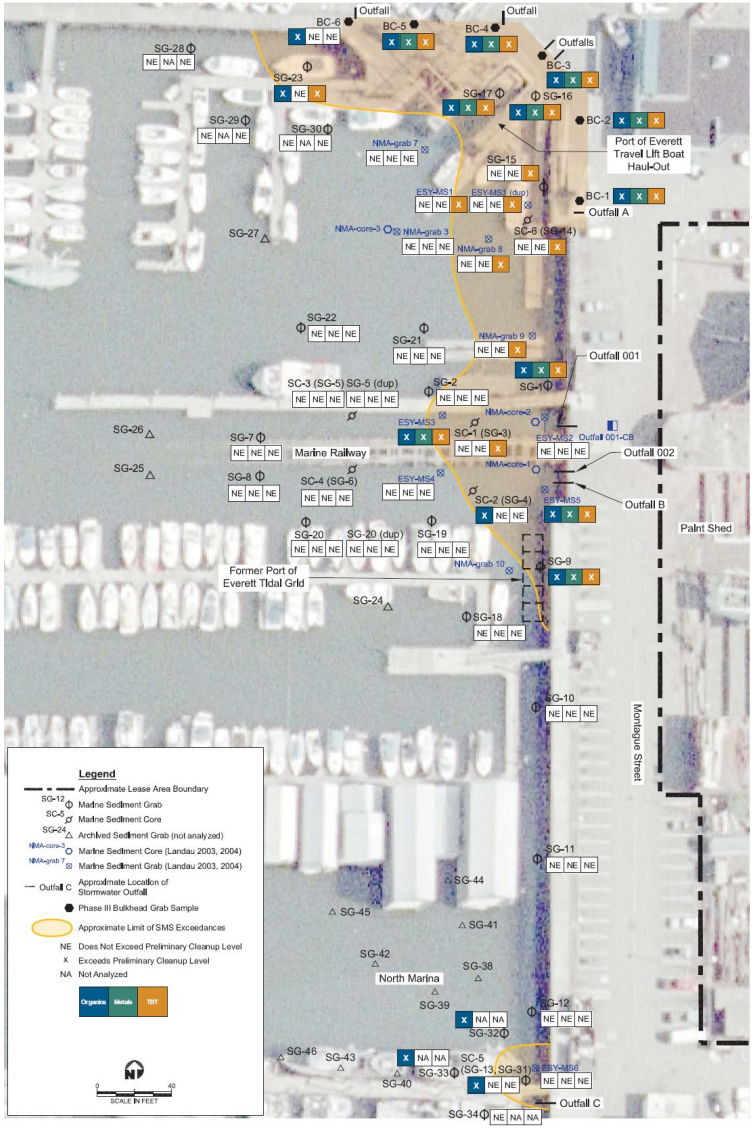
- **Extent of contamination: 0.6 acres**

- **Sediment results**

Exceedances include:

- SVOCs
- Metals including arsenic, copper, lead, mercury, silver and zinc
- Tributyltin
- PCBs
- One bioassay failure



Job No. 33761354

Figure 4-7
Area of SMS Exceedance in Shallow Sediment

Remedial Alternative Selection

*Based on the results of the RI, four cleanup action alternatives were identified and evaluated for the **upland portion** of the Site: 1.8 to 5.4 Million*

- **Alternative 1**
  - Targeted excavation
  - (1,300 cubic yards)
  - Engineered-cap
- **Alternative 2**
  - Excavation (9,400 cubic yards)
  - Engineered-cap
- **Alternative 3**
  - Building demolition
  - Mass excavation
  - (18,800 cubic yards)
- **Alternative 4**
  - Limited building demolition
  - Bulk excavation (14,800 cubic yards)
  - Engineered-cap

*Based on the results of the RI, two cleanup action alternatives were identified and evaluated for the **in-water portion** of the Site: 2 Million for both*

- **Alternative 1**
  - Targeted dredging
  - Containment
- **Alternative 2**
  - Mass dredging

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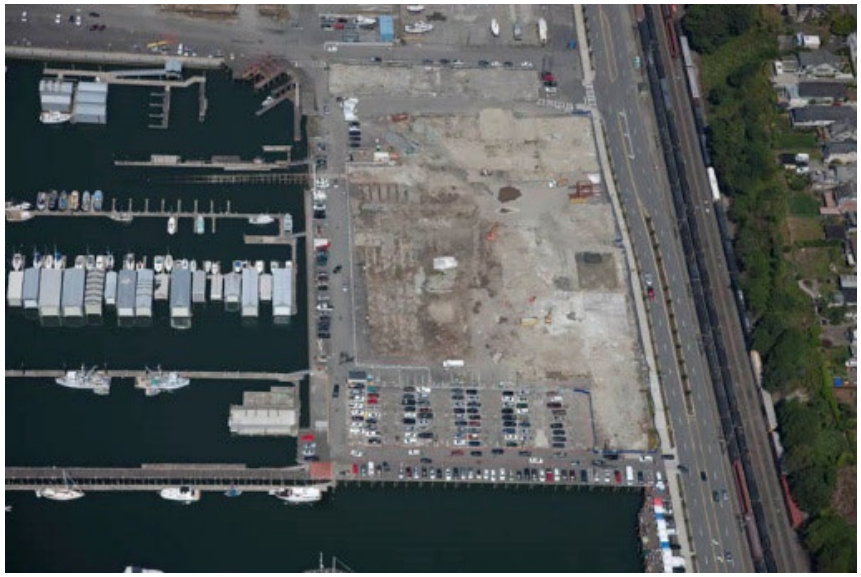
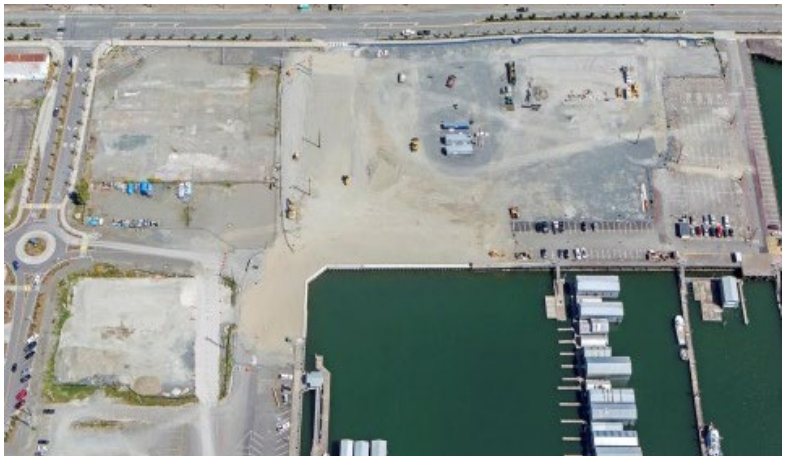
Before cleanup construction





After cleanup

Next Steps

- Update of current ownership
- Discuss additional upland/in-water sampling
- Transition from brownfield to cleanup site
- Discuss timeline moving forward
- Other topics

Contacts

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We're here to work with you

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