

Unocal Edmonds Bulk Fuel Terminal 0178 Cleanup Site



View of Edmonds waterfront and Unocal Edmonds cleanup site's Lower Yard

Comments accepted

September 9, 12:00 am –
October 24, 11:59 pm, 2024

Submit comments

Online at:

[Ecology's eComment System](#)¹

Or by mail or email to:

Tanner Bushnell, Site Manager
WA Department of Ecology
PO Box 330316
Shoreline, WA 98133-9716
425-691-0571
Tanner.Bushnell@ecy.wa.gov

Review documents

Online: [Ecology's webpage](#)²

Edmonds Library

650 Main Street
Edmonds, WA 98020-3056

For assistance, contact:

Kristen Forkeutis,
Outreach Specialist
Kristen.Forkeutis@ecy.wa.gov
425-240-4353

Site info

Facility Site ID: 2720
Cleanup Site ID: 5180

Revised Draft Feasibility Study ready for public review

The Department of Ecology (Ecology) invites you to review cleanup documents between Ecology and Union Oil Company of California (Unocal). The former Unocal Edmonds Bulk Fuel Terminal 0178 cleanup site (Site) is located near the Edmonds waterfront and consists of an Upper and Lower Yard (see maps on pages two and three). Unocal is a subsidiary of Chevron Corporation, and Chevron Environmental Management Company (CEMC) is conducting the cleanup under Ecology's oversight.

Multiple Interim Actions (or early partial cleanups) have been completed to remove petroleum floating on groundwater and soil contaminated with arsenic and petroleum. The Upper Yard portion of the Site was cleaned up in 2003 and the cleanup of the Lower Yard portion is near completion. Remaining contamination is potentially harmful and must be addressed under Washington's cleanup law, the [Model Toxics Control Act \(MTCA\)](#).³

The following documents are available for review:

- **Revised Draft Feasibility Study:** An evaluation of ways to clean up the Site, and a recommended preferred cleanup alternative. This includes:
 - 2017 Draft Feasibility Study
 - 2024 Draft Feasibility Study Addendum
 - Site-Specific Terrestrial Ecological Evaluation
- **Updated Public Participation Plan:** A document explaining how people can participate in the cleanup process.

Sept. 16, 2024: Open house and hybrid public meeting

Ecology will host an in-person open house and then a hybrid public meeting to provide project information and answer questions.

- **5:30 pm:** Open House for in-person attendees
- **6:30 pm:** Presentation (in-person and online via Zoom) followed by Q&A
- **Address:** Edmonds City Hall, Brackett Room, 3rd Floor, 121 5th Ave. N., Edmonds, WA

Register for the online presentation: www.go.ecology.wa.gov/UnocalEdmonds

¹ <https://go.ecology.wa.gov/UnocalEdmondsComments>

² <https://go.ecology.wa.gov/UnocalEdmonds>

³ <https://ecology.wa.gov/MTCA>

Site background

The Site is located at 11720 Unoco Road in Edmonds, WA. The terminal operated from 1923 to 1991. It was used for storing, blending, and distributing petroleum products including gasoline, diesel, and bunker fuel. An asphalt plant operated on the Site between 1953 and the late 1970s.

The terminal consisted of a dock and an Upper and a Lower Yard (see map). Petroleum products were pumped from marine vessels moored at the dock to storage tanks in the Upper Yard, located on a hill above the Lower Yard. Products were gravity-fed and pumped to loading racks in the Lower Yard for transport by truck and train to customers.

Previous and ongoing cleanup

Several Interim Actions (see map on page three) have been conducted over the years to clean up petroleum floating on groundwater and remove arsenic- and petroleum-contaminated soil. Removal of contaminated soil resulted in cleanup of groundwater, and most of the Site is now clean.

In 2003, cleanup of the Site’s Upper Yard was completed. Twenty-three fuel storage tanks were removed and approximately 100,000 tons of metal- and petroleum-contaminated soil was excavated. Ecology then certified that it was suitable for residential use, and the Point Edwards Condominiums were constructed. Additionally in 2003, approximately 40,000 tons of metals and petroleum-contaminated soil was removed from the Lower Yard.

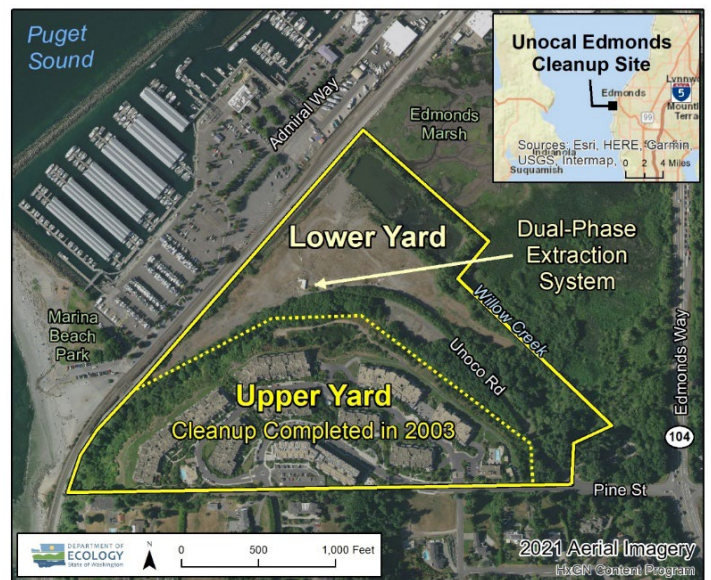
During a 2007-2008 Interim Action at the Lower Yard, 130,000 tons of petroleum-contaminated soil and sediment were removed. Also, 9,000 gallons of light non-aqueous phase liquid (LNAPL or petroleum products that float on top of groundwater) was removed along with sand blast grit containing arsenic and lead.

Ecology began another Interim Action in 2017-2018 to clean up two remaining areas of contamination in the Lower Yard. One was the stormwater Detention Basin 2 area, and the other is in the vicinity of a Washington State Department of Transportation (WSDOT) storm drain crossing the Site (see map on page three).

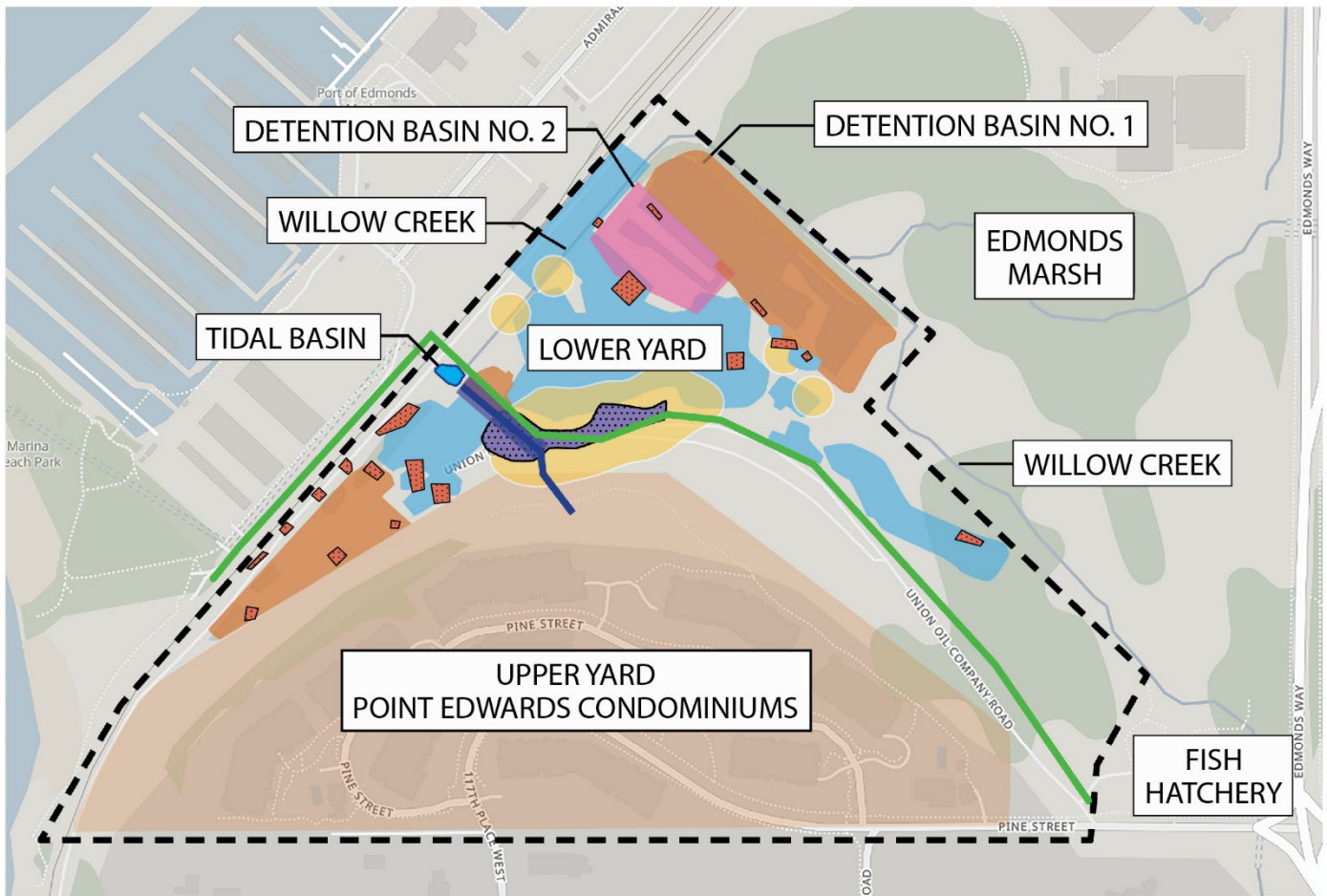
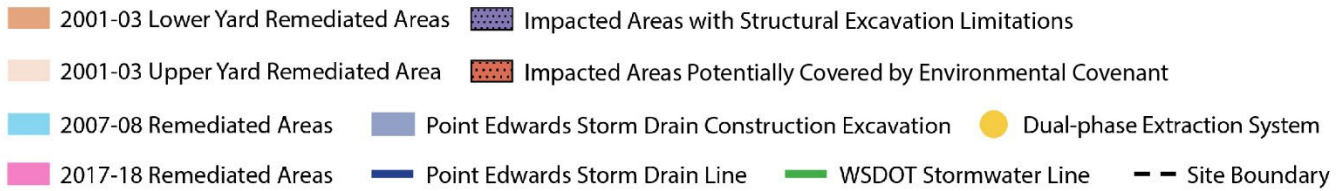
The stormwater Detention Basin 2 was excavated to remove petroleum-contaminated soils, and a dual-phase extraction (DPE) system (that removes and treats petroleum from soil, groundwater, and soil gas) was installed to remediate the WSDOT storm drain area with an expected run time of 6 years. In 2019, the DPE system was expanded to the north and northeast of the WSDOT storm drain treatment area.



Historic view of fuel terminal



Aerial view of Unocal Edmonds cleanup site



Site map and locations of interim actions (remediated areas). Site map is a graphical representation of current Site conditions for illustrative purposes only.

Revised Draft Feasibility Study

To address contamination found at the Site, CEMC prepared a 2017 Draft Feasibility Study that evaluated six different cleanup alternatives for the Lower Yard portion of the Site. Since then, two additional documents have been prepared as part of the revised Draft Feasibility Study:

- **2024 Draft Feasibility Study Addendum:** Considers revised cleanup levels (CULs), cleanup actions required for the protection of ecological receptors, and a revised Disproportionate Cost Analysis (DCA).
- **Site-Specific Terrestrial Ecological Evaluation⁴:** Evaluates potential risks using protective CULs for native plants, soil biota, and wildlife (known as ecological receptors) that live in the environment.

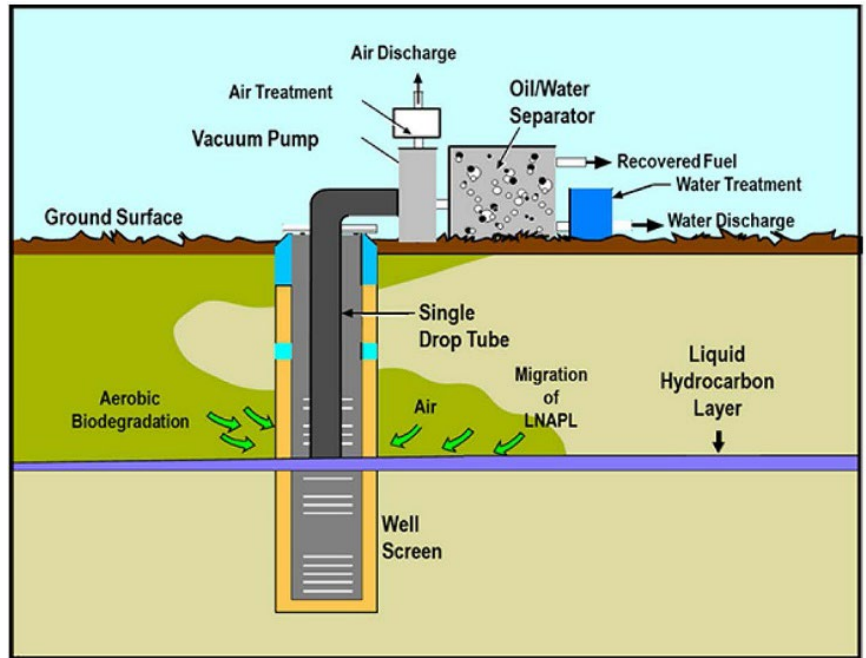
Upon evaluation of these documents, the costs and environmental benefits of the cleanup alternatives were compared, leading to a preferred cleanup alternative.

⁴ <https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Terrestrial-ecological-evaluation>

Preferred cleanup alternative: Lower Yard

Excavation, Dual Phase Extraction (DPE) Treatment and Limited Environmental Covenant

- Excavate impacted soil and any LNAPL in the area of the stormwater Detention Basin 2; and remove and transport it to an appropriate waste disposal facility. This excavation occurred as an Interim Action from 2017 to 2018.
- Implement a DPE system in multiple areas (see map on page three), which has operated from 2017 to present, to remove remaining soil and groundwater contamination. The system:
 - Depresses the groundwater table by pumping out groundwater, thus exposing contaminated soil for treatment via vapor extraction and exposed contaminated soil gas with high-pressure vacuum wells.
 - Treats the contaminated groundwater and soil gas above ground.
 - Lowers contaminant concentrations in soil to meet CULs.
 - Ensures that contaminated groundwater and soil gas does not migrate off-site.
- Install a woven, geotextile fabric with a minimum 6-inch clean soil/rock cover placed over a portion of the Site to provide an ecological barrier.
- Implement a limited Environmental Covenant to prevent future contact with remaining contamination.
- Monitor the results of the preferred cleanup alternative to determine if additional remedial actions are needed under a contingency plan incorporated into the future Cleanup Action Plan.
 - To date, groundwater data collected from several wells has fluctuated above and below CULs. Therefore, a contingency plan will be developed and implemented if there are at least three groundwater samples that exceed CULs within a two-year period, following the completion of the DPE system operation.



Dual phase extraction (DPE) system example
 (Source: Federal Remediation Technologies Roundtable:
<https://www.frtr.gov/matrix/Multi-Phase-Extraction/>)

Excavation and DPE Treatment is the alternative that is permanent to the maximum extent practicable. It offers protection of human health and the environment, while complying with the most up-to-date cleanup standards.

Additional Lower Yard Sampling

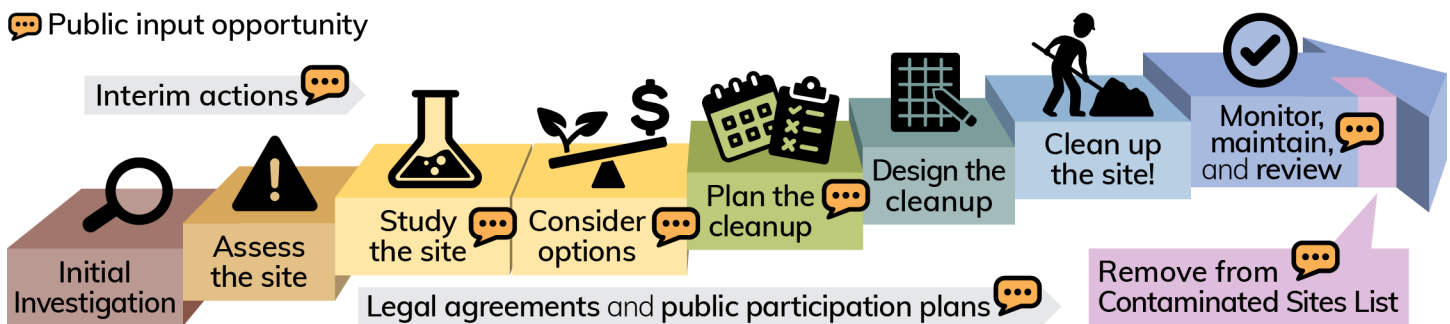
The MTCA cleanup process typically requires additional sampling to better inform future cleanup steps. Therefore, additional sampling will be performed in the Lower Yard so that Ecology and CEMC can refine the areas for the selected remedial actions and better inform the Draft Cleanup Action Plan. Ecology welcomes input from the community during this public comment process on the additional sampling. We will consider all comments before conducting future Site sampling.



Historic picture of former Unocal Edmonds Bulk Fuel Terminal

What happens next?

 Public input opportunity



Washington’s formal [cleanup process](https://ecology.wa.gov/MTCA-process)⁵ is shown in the graphic above. Cleanup options for the Site have been considered. A general timeline for the remaining steps is provided below.

- **September 9, 12:00 am – October 24, 11:59 pm, 2024:** Public comment period for the revised draft Feasibility Study and updated Public Participation Plan.
- **September 16, 5:30 pm, 2024:** Ecology hosts an in-person open house and hybrid public meeting.
- **2024-2025:** Ecology finalizes the above documents after addressing public comments received. Based on additional Site sampling, Ecology continues planning the cleanup (cleanup action plan) and schedules the next public comment period for the Draft Cleanup Action Plan, the Consent Decree, and the State Environmental Policy Act (SEPA) Determination of Nonsignificance.

Legal agreements, interim actions, remedial investigations, feasibility studies, and cleanup action plans will be available for public review and comment as described in the Public Participation Plan.

⁵ <https://ecology.wa.gov/MTCA-process>

Toxics Cleanup Program
PO Box 330316
Shoreline, WA 98133-9716

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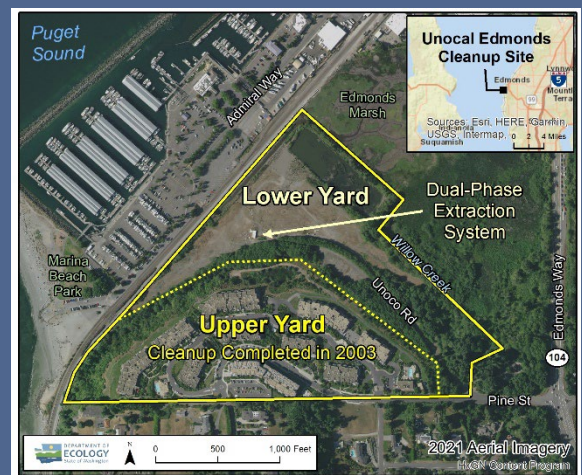
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Aerial view of Unocal Edmonds cleanup site

ADA accessibility

To request an ADA accommodation, contact Ecology by phone at 425-240-4353 or email at kristen.forkeutis@ecy.wa.gov, or visit ecology.wa.gov/Accessibility. For Relay Service or TTY call 711 or 877-833-6341.