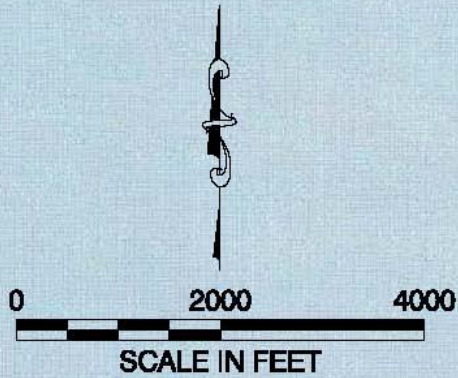




Unocal Edmonds Bulk Fuel Terminal
Years of Operation: 1923 to 1991



SITE



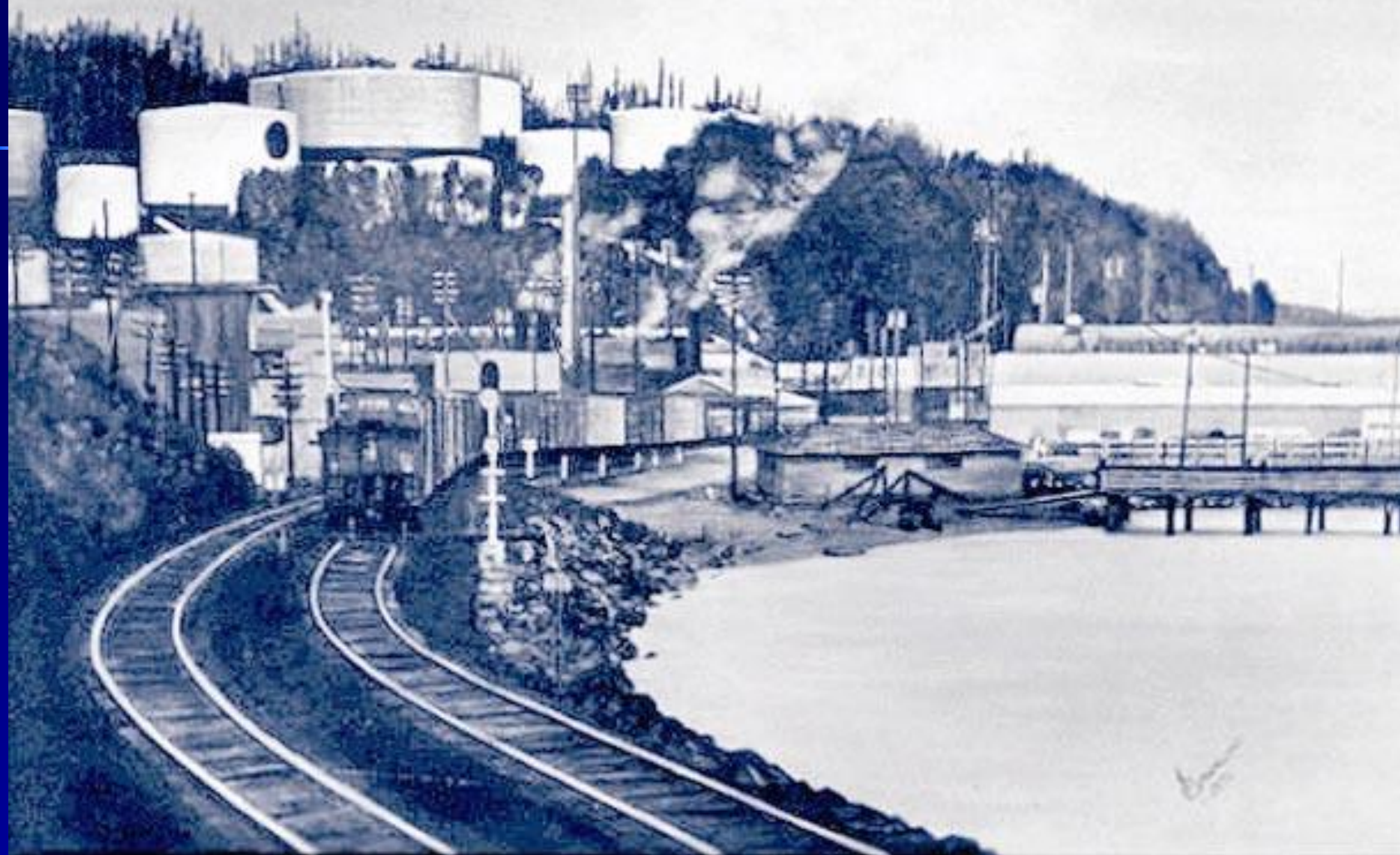


Photo courtesy of the Edmonds South Snohomish County Historical Society

131.11

Union oil docks.

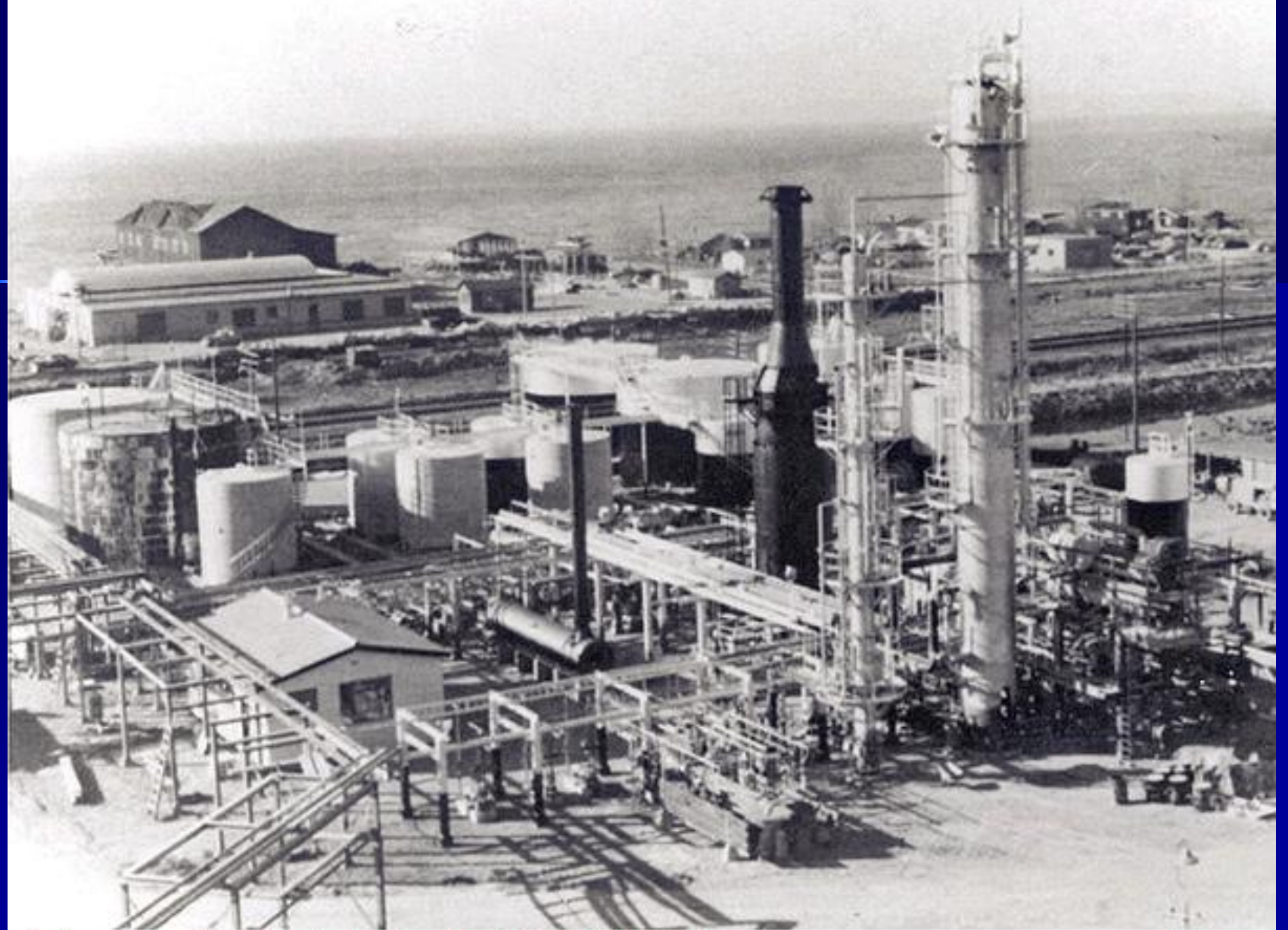


Photo courtesy of the Edmonds South Snohomish County Historical Society

131.16

Union oil - photo from Doyle Gudget.



Photo courtesy of the Edmonds South Snohomish County Historical Society

131:43e

Tanks occasionally erupted or "boiled over". In this you can see the result of parking your car too close to a tank - a nice asphalt coating.

Facility in the late 90s

Legend
● Monitoring Well Location
● Well Being Assessed Location
● Under Flow Field Probe Area



Willow Creek

DB-1
DB-2
Lower Yard

Edmonds Marsh

Upper Yard

Ecology and Unocal/Chevron have worked with several stakeholder groups over the years to investigate and clean up the site.

- 
- Unocal/Chevron
 - City of Edmonds
 - Washington State Ferries
 - Edmonds Citizen's Awareness Committee
 - Port of Edmonds
 - Washington Department of Fish and Wildlife
 - Washington Department of Ecology

**Interim Actions were
conducted between
2001 and 2008**

Cleanup of the Upper Yard





**The bulk tanks
were cut up
and trucked to
the scrap yard**











Upper Yard After Tank Removal





Contaminated soil was removed from the upper yard

February 2007



Cleanup of the Lower Yard

Oil was removed from the groundwater table



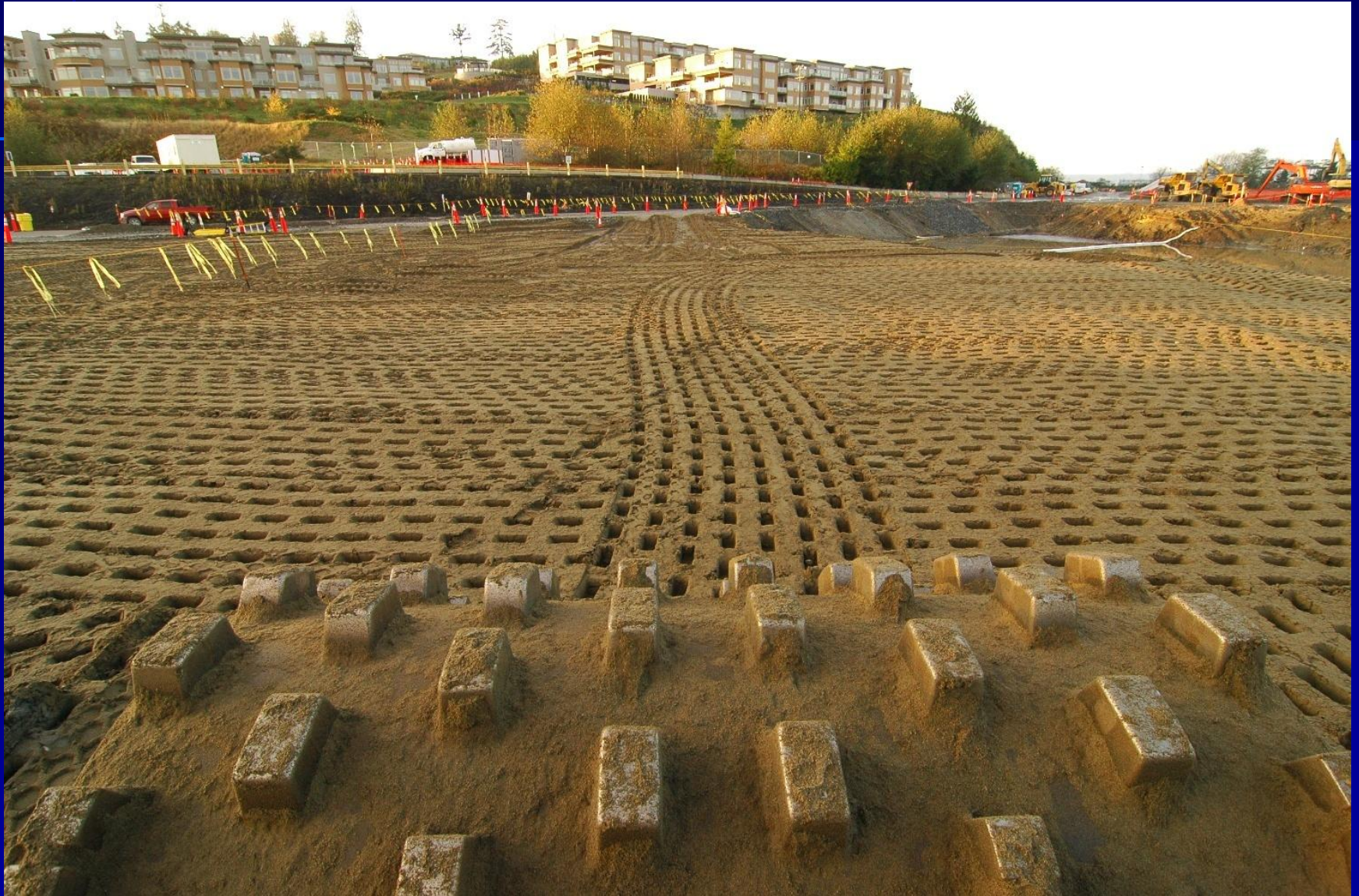
Contaminated Soil was excavated ...



... stockpiled and sent off site.



Excavations were backfilled.



Off-specification asphalt was removed from Detention Basin 1



Samples were collected to confirm the contamination was removed to required concentrations



Stakes show sample locations

**Sand blast grit
was removed**



Sediments in Willow Creek were sampled and sediment excavated where necessary



Coffer dams were built for the sediment cleanup ...



Fish were relocated to Edmonds Marsh...



Sediment was removed...



And the creek was restored.



Water Treatment Plant

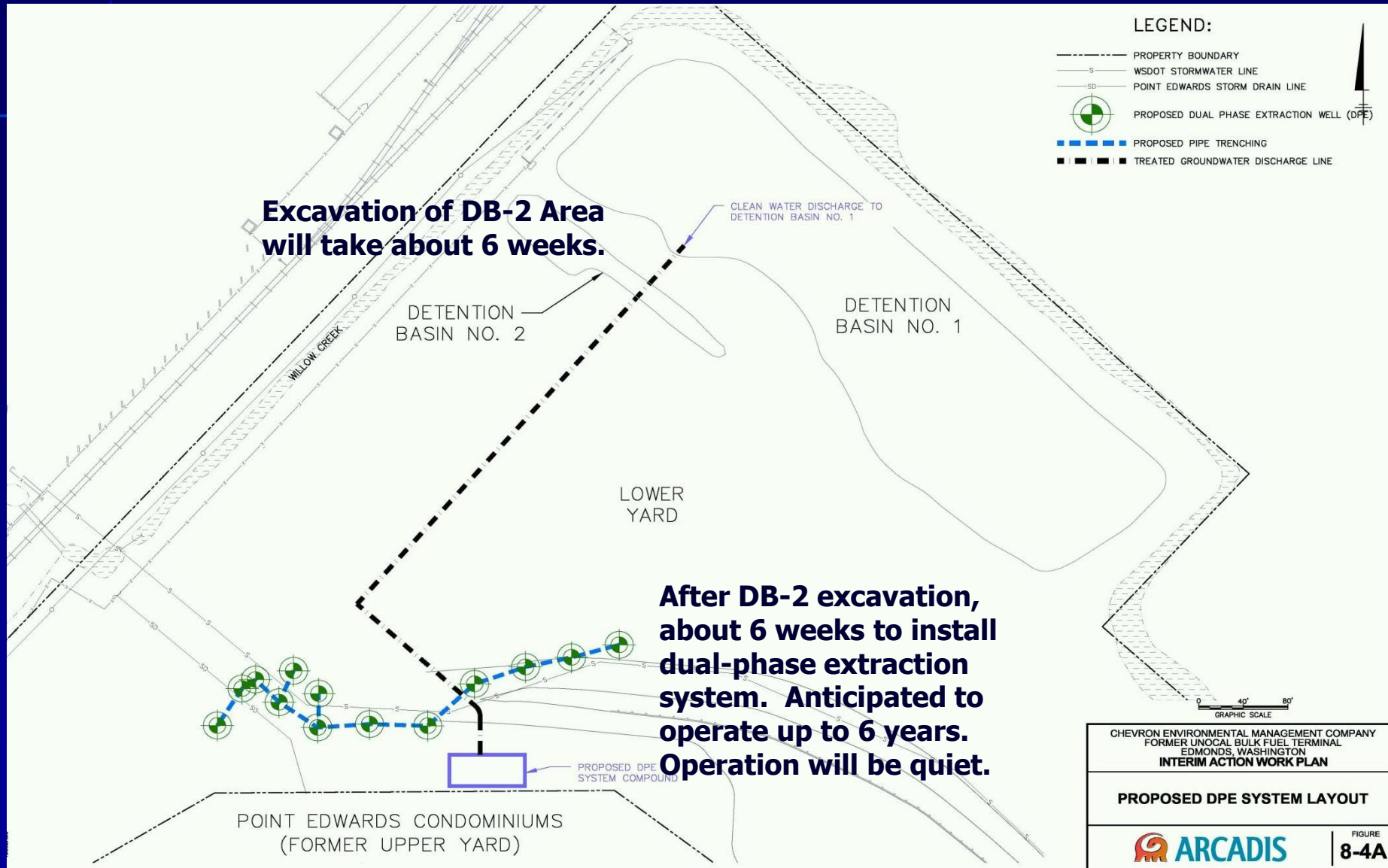


Over 5 Million gallons of groundwater treated and discharged below permit limits

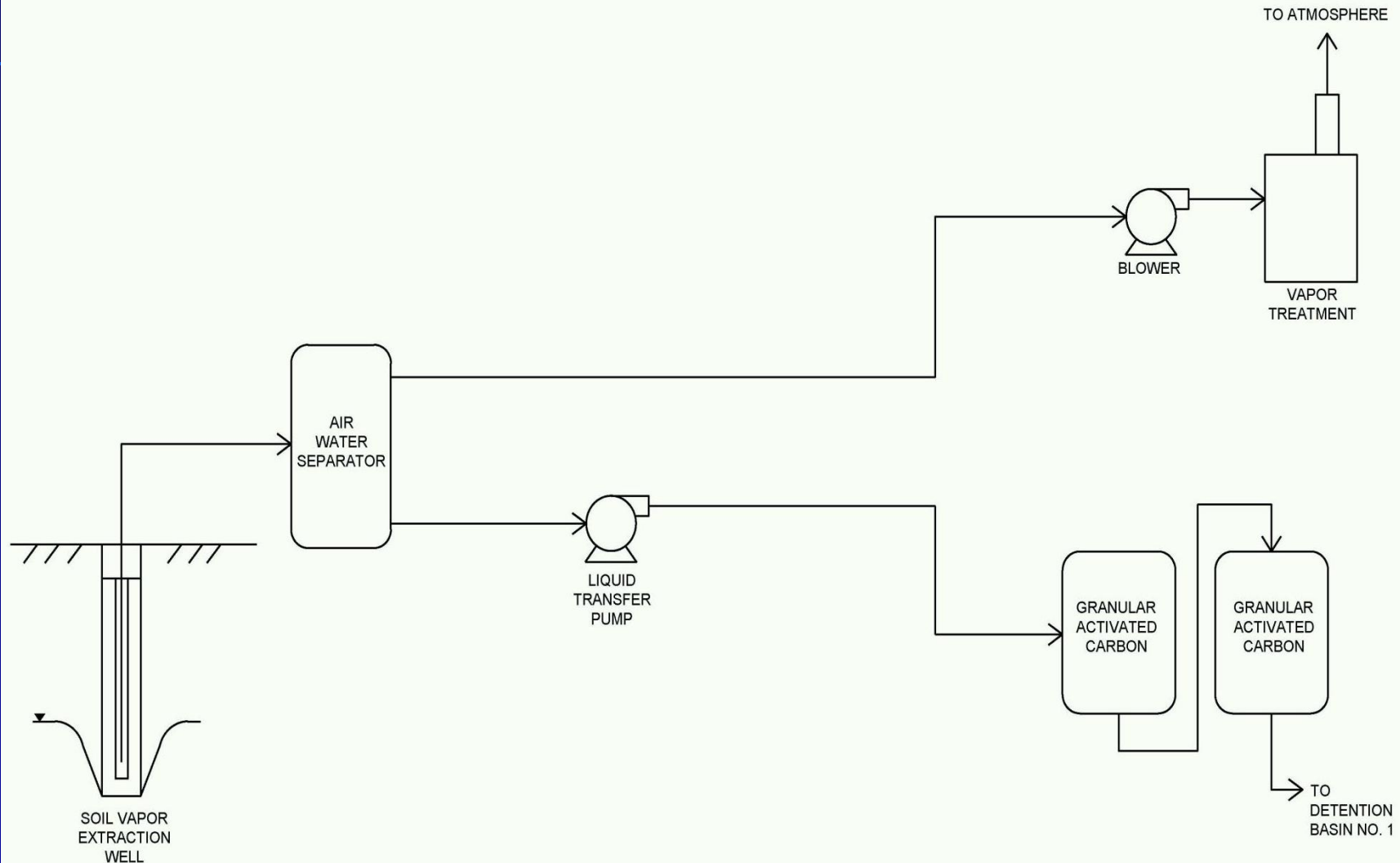
Now – just two areas left



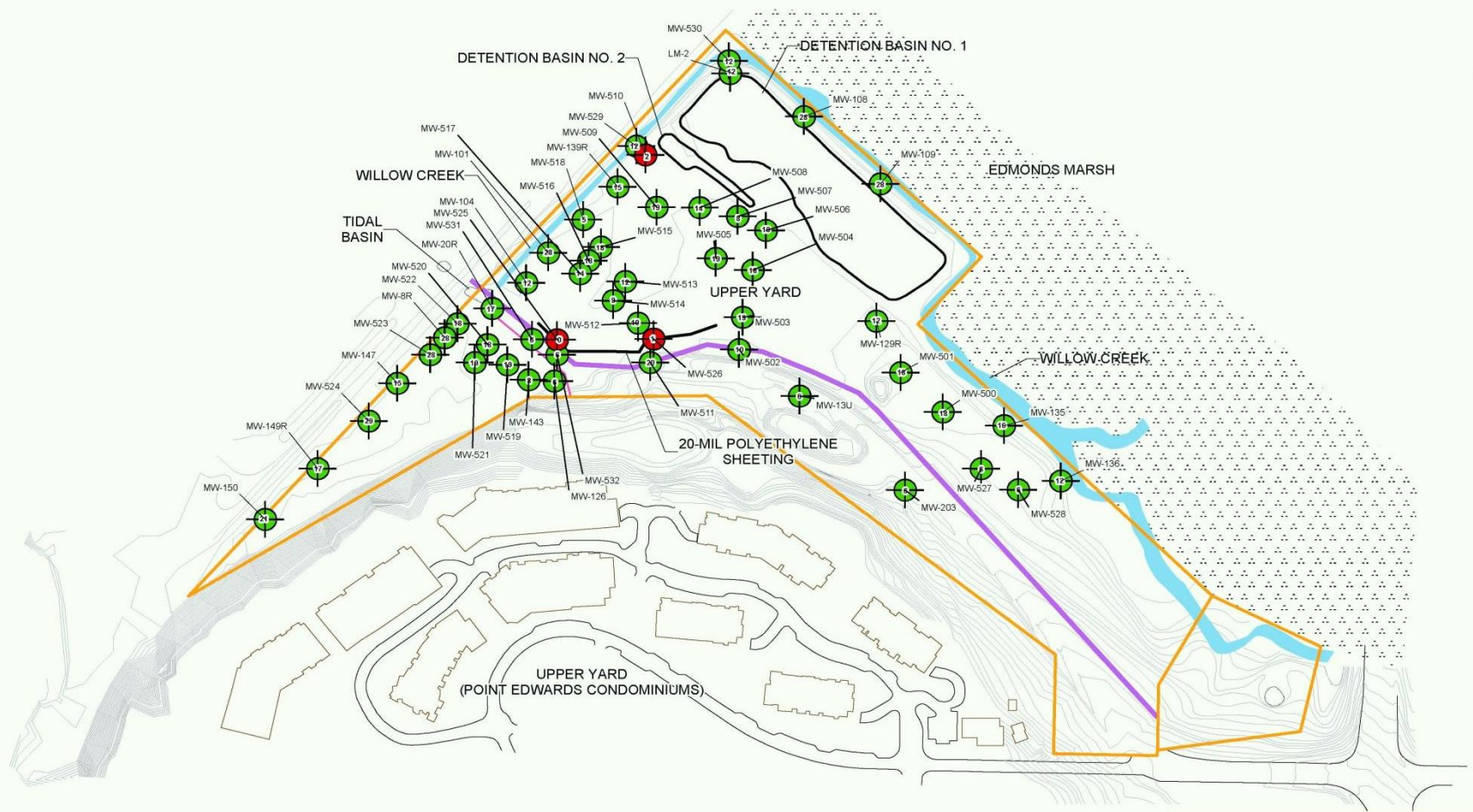
Construction to begin June 2016



Dual-Phase Extraction System



Groundwater is clean except in the two areas



LEGEND

- CLEAN
- ABOVE STANDARD
- WSDOT STORMWATER LINE
- POINT EDWARDS STORM DRAIN LINE
- LOWER YARD PROPERTY BOUNDARY
- EDMONDS MARSH

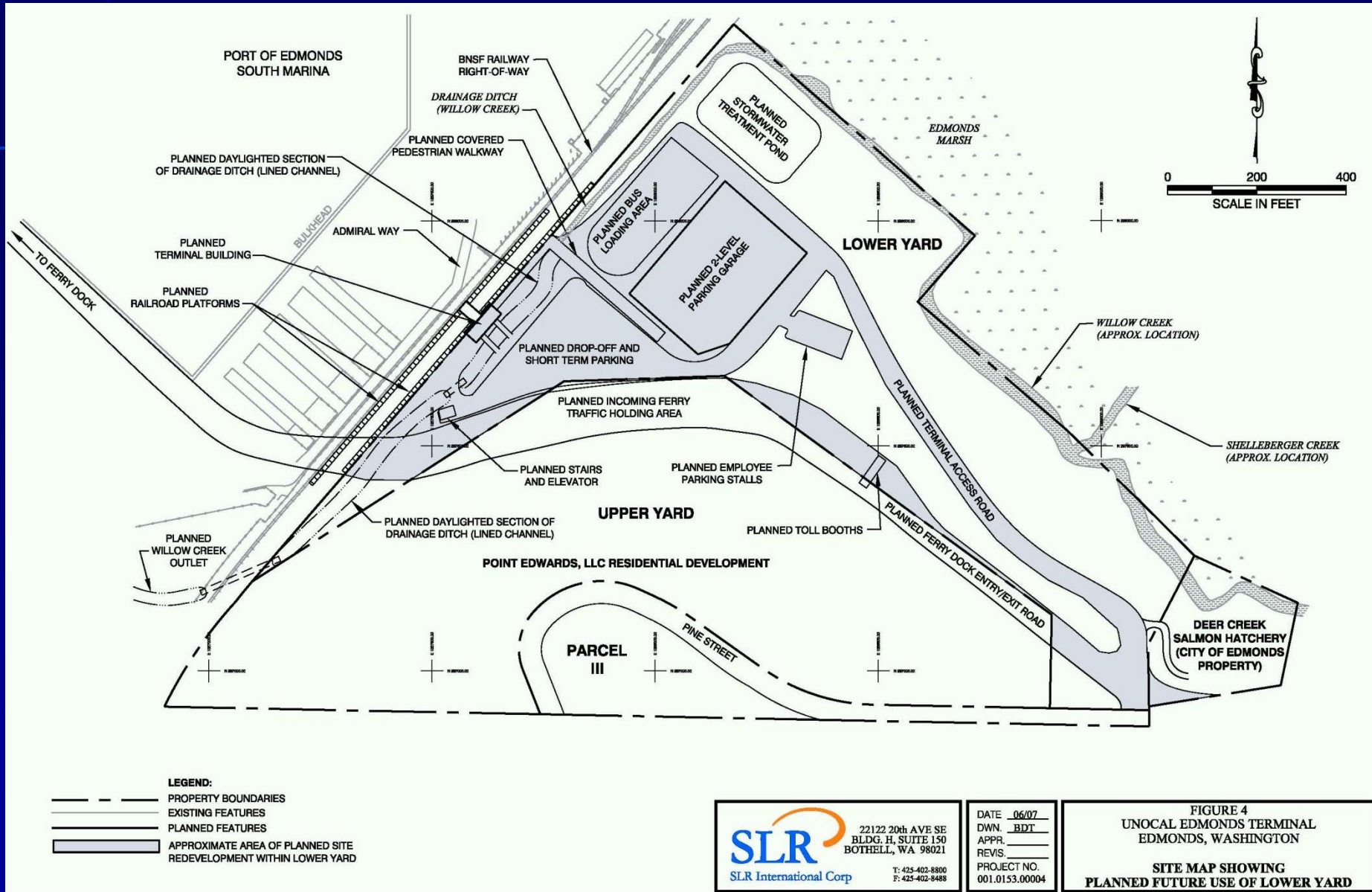


INTERIM ACTION WORK PLAN

GROUNDWATER REMEDIATION
STATUS - FIRST QUARTER 2015



Potential future use could be a new ferry terminal



What is being issued for public comment?

- Interim Action Work Plan
 - Excavate contaminated soil in the area of Detention Basin 2.
 - Install and operate a dual-phase extraction system to clean up contaminated soil and groundwater near the WSDOT storm drain.
- State Environmental Policy Act (SEPA) Checklist and Determination of Nonsignificance (EIS not required).

Staying Informed

- **Informational signs** in the vicinity of the site
- **Websites** – web search Unocal Edmonds or see Fact Sheet for web address
 - Unocal web site
 - Ecology web site (documents)
- **Other public outreach**, depending on interest (mailings at key points in the cleanup , public presentations if requested)

Questions about the cleanup



Reserve Slides

Soil Vapor Sampling

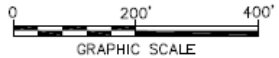


Before remediation



- LEGEND:**
- 2001 AND 2003 SOIL EXCAVATIONS BELOW GROUNDWATER TABLE
 - PROPERTY BOUNDARY
 - 2007/2008 EXCAVATION BOUNDARIES
 - WSDOT STORMWATER LINE
 - POINT EDWARDS STORM DRAIN LINE
 - >500 µg/L
 - >700 µg/L
 - >800 µg/L
 - LIGHT NONAQUEOUS PHASE LIQUID (LNAPL)

- NOTES:**
1. µg/L - MICROGRAMS PER LITER.
 2. TOTAL TPH CONCENTRATIONS BASED ON SEPTEMBER 2006 SAMPLING EVENT RESULTS.
 3. 20-MIL POLYETHYLENE SHEETING INSTALLED UPON COMPLETION OF PHASE I EXCAVATION. SHEETING REACHES TO APPROXIMATELY 7.5 FEET ABOVE MEAN SEA LEVEL.
 4. HORIZONTAL DATUM: WASHINGTON STATE COORDINATE SYSTEM NORTH ZONE (NAD 83/98). VERTICAL DATUM: N.A.V.D. 88. UNITS: U.S. SURVEY FEET. HORIZONTAL AND VERTICAL CONTROL ESTABLISHED BY GPS VIA VERTICAL REFERENCE STATION NETWORK (VRSN).
 5. SOUTHEAST PORTION OF WSDOT STORMWATER LINE HAS NOT BEEN SURVEYED.



After remediation

