

# Facilities North/Metro Lake Union Site (aka Chevron Bulk Fuel Terminal)



## Cleanup update

The Washington State Department of Ecology (Ecology) has prepared this fact sheet to update you about the environmental cleanup of the Facilities North/Metro Lake Union site (formerly the Chevron Bulk Fueling Terminal #100-1327).

### Site Location

The 3-acre site is located on the north shore of Lake Union at 1602 N. Northlake Place in Seattle, Washington (see figure on page 2).

### Site Background

Standard Oil of California constructed the facilities in 1925, and operated a diesel and bulk fueling and storage facility for several decades. In 1982, Metro (formerly the King County Department of Metropolitan Services) purchased the property. Metro Transit operated a fueling station here during the mid-1980s and closed the tanks in 1989. By April 1992, all of the aboveground storage tanks were drained, and piping to the tanks was flushed and capped. The facilities were then used as a maintenance base.

The site consists of two parcels—a South Yard and a North Yard (see figure). The South Yard borders Gas Works Park and the Seattle Harbor Patrol to the east and Northlake Ship Builders (formerly Unimar) to the west. A fueling terminal was located on the dock.

The North Yard is located across the intersection directly north of the South Yard and west of Nortar (formerly

American Tar Company). The North Yard contained seven aboveground storage tanks. Underground piping from the dock to the storage tanks connected the two parcels. The piping is no longer in service.

In 1993, a study called a Remedial Investigation/Feasibility Study (RI/FS) was conducted to determine the extent of contamination and cleanup options for the site. Additional work was conducted in 1997 and 1998. The study showed the following:

- Shallow soils near the aboveground storage tanks were contaminated with metals (arsenic, cadmium, lead, and mercury), and
- Soils and ground water were contaminated with petroleum hydrocarbons (TPH), benzene, and polyaromatic hydrocarbons (PAHs).

The shallow soils were contaminated by the sandblasting of the storage tanks and painting operations.

The facilities are currently used as a maintenance base and the site contains office and work space, a garage, a carpentry room, storage, and parking.

### Cleanup Activity to Date

Cleanup work was divided into two phases. Phase 1 was conducted between July and September 1999 by Metro Transit Division and Chevron Products Company (formerly Standard Oil of California) with oversight by Ecology. Phase 1 work included:

- Aboveground petroleum storage tanks and associated structures and piping (also aboveground) were

**June 2004**

### Technical questions:

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### For other questions or to be added to the mailing list:

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### Documents can be reviewed at the following locations:

Seattle Public Library - Wallingford  
1501 N. 45th Street, Seattle  
(206) 684-4088

WA Department of Ecology  
Northwest Regional Office  
3190 160th Avenue SE  
Bellevue, WA 98008  
(425) 649-7190  
(Call for an appointment)

Ecology's Web Site:  
[http://www.ecy.wa.gov/programs/tcp/sites/metro/fn\\_main.html](http://www.ecy.wa.gov/programs/tcp/sites/metro/fn_main.html)

removed and disposed off site or recycled where practical and

- Shallow metals-contaminated soils were excavated and disposed off site at an appropriate landfill or recycled where practical.

Sampling results documenting the completion of Phase 1 activities were presented to Ecology in a December 1999 report showing that all tasks for Phase 1 were completed. The shallow soils now meet state cleanup levels for metals.

The focus of Phase 2 cleanup activities was on cleanup of the petroleum contamination in deeper soils and groundwater underlying both the North and South Yards. Three cleanup methods were used in Phase 2 cleanup activities:

- **Bioremediation:** Hydrogen peroxide was injected into soils and groundwater to break down petroleum (this process increases oxygen levels in order that microscopic “bugs” [microbes] in soil and groundwater digest the oil and turn it into water and harmless gases). This method was used between March 1999 and January 2002.
- **Extraction pumping:** Pockets of petroleum in groundwater were vacuumed out, treated, and disposed off site. This method was used three times in April 2002.
- **Biosparging:** Air was pumped and pushed through soil and groundwater in order to increase the physical breakdown of the petroleum. This method was used between April 2002 and June 2003.

In addition, groundwater compliance monitoring has been conducted quarterly since 1998 to evaluate the effectiveness of the cleanup methods. This monitoring is ongoing.

These three cleanup methods have been successful in removing most of the petroleum. However, the cleanup is not complete as pockets of petroleum contamination remain at the site and groundwater compliance monitoring continues.

### Current Activity

Metro and Chevron Products Company are currently discussing future cleanup options (in addition to groundwater monitoring) with Ecology. The options under consideration include:

- Placement of a deed restriction on the property that would require Ecology’s approval of a work plan if any disturbance to the subsurface is proposed (to be combined with periodic groundwater compliance monitoring) and
- Excavation of the contaminated soil pockets with off-site disposal or treatment and recycling where practical.

A deed restriction, also called a restrictive covenant or notice on the deed, is an agreement between Ecology and a landowner that is filed with the county register of deeds along with the property deed/covenant. It protects people, pets, and the environment from coming into contact with hazardous substances left behind after a cleanup is completed and may restrict use of the property.

If future development of this site is proposed, then the future site land use needs to be considered in planning completion of the cleanup. Current site cleanup levels were set for present commercial and industrial land uses.

For example, if the pockets of contamination are left in place and the site is completely paved as part of site redevelopment (all site soil is covered with concrete or asphalt), then Ecology will require a property deed restriction and continued periodic groundwater monitoring.

If the pockets of contamination are excavated as part of the redevelopment of the site, then Ecology will require compliance monitoring. Compliance monitoring of the soil has to show one sampling event below cleanup levels. Compliance monitoring of the groundwater has to show samples below cleanup levels for four quarters. Once compliance monitoring confirms that the cleanup is complete, Ecology will issue a Notice of Completion. If any contamination is left on site, Ecology will require a deed restriction and continued periodic monitoring.

Any potential cleanup of sediments in Lake Union related to this site will be addressed at a later date under a separate cleanup plan and agreement.





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