

NORTH MARKET STREET SITE

PRELIMINARY ENGINEERING DESIGN



The Washington State Department of Ecology received the Preliminary Engineering Design for the cleanup action at the North Market Street Site (Site). The Site is located in the Hillyard area approximately one mile north of the City of Spokane corporate limits, Spokane County, Washington.

The Preliminary Engineering Design is a report which describes the procedures to be used to accomplish the cleanup of soils, soil vapor and groundwater at the Site. These procedures are submitted by the potentially liable persons (PLPs) as required by a Consent Decree issued under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW. The PLPs for the North Market Street Site are Phillips Petroleum Company (Phillips), and Tosco Refining Company (Tosco), a division of the Tosco Corporation.

A Consent Decree was finalized by Ecology in November 2000, after a 30-day public comment period. The Consent Decree is the legal mechanism to implement the cleanup action plan (CAP) and provide a settlement of liability for the PLPs with the State of Washington. Ecology authored the Cleanup Action Plan (CAP), which sets cleanup levels for each contaminant in soil and groundwater and selects the cleanup actions to achieve cleanup levels.

The cleanup action for shallow soil is excavation and thermal treatment of excavated soil. Bioventing was selected to address deep soil contamination by enhancing biodegradation in the subsurface. A line of air sparging wells coupled with natural attenuation was chosen as the cleanup action for groundwater.

Ecology invites the public to review and comment on the Preliminary Engineering Design for the North Market Street Site January 18 through February 20, 2001. The box at the right provides information on where to review documents and submit written comments.

SITE BACKGROUND

The North Market Street Site is bounded by Lincoln Road on the South and Freya Street to the east. A private roadway on the Kaiser south property borders the Site to the north. The western boundary roughly parallels North Market St. (Figure 1). The Site is defined as the area of soil contamination and the groundwater contaminant plume. This definition includes the fuel terminal currently operated by Tosco (Facility) and the groundwater plume where contaminants above background have been detected. Petroleum hydrocarbons and associated

FACT SHEET: JANUARY 2001

REPOSITORIES:

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Eastern Regional Office
4601 N. Monroe
Spokane, WA 99205-1295**

**Spokane Public Library
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4005 N. Cook Street
Spokane, WA 99207-5879**

Questions and submission of written comments contact:

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PUBLIC COMMENT

**PERIOD: January 18,
through February 20, 2001.**

chemicals are the contaminants of concern at the Site.

Several of the properties which comprise the North Market Street Site were developed as industrial or commercial facilities that were involved in or related to the refinement, recycling, and sale of petroleum products. In the late 1930s properties, including the current Tosco Spokane Terminal tank farm and distribution center, were developed as part of an oil refinery complex. Waste management practices common during that era resulted in releases of liquid refinery-related petroleum wastes into the environment.

Refinery operations were discontinued in 1953. The facility continued operations as a petroleum tank farm after refinery decommissioning. Today the Tosco Spokane Terminal continues to operate as a petroleum fuels storage and distribution center with an estimated cumulative capacity of approximately 391,500 barrels or 16,443,000 gallons, primarily automotive fuels. Since 1976 at least two major product spills have occurred at the Tosco Terminal Facility. The Facility and properties that comprise the Site are primarily zoned for commercial and industrial purposes.

As early as 1978 local land owners and businesses located north of the present day Tosco tank terminal reported the presence of petroleum-laden soils on lands immediately north of the decommissioned oil refinery complex. In 1984 state officials confirmed the presence of petroleum contamination to groundwater from samples collected at three private water supply wells in the area. Use of those wells was

discontinued and Ecology began supplying bottled water to users at that time. In 1991, the North Spokane Irrigation District No. 8 completed a 16-inch water line loop as far north as Magnesium Road to provide a potable water supply to users previously requiring alternate supplies.

In 1990 the US Environmental Protection Agency (EPA) listed the North Market Street Site on the federal Superfund National Priorities List (NPL) of hazardous waste sites requiring cleanup. After the Site was listed, Ecology direct cleanup under the authority of the Model Toxics Control Act (MTCA) (Chapter 70.105D RCW).

PHASE I REMEDIAL INVESTIGATION FINDINGS

The Phase I RI was completed in 1993. The investigative work resulted in: the installation of ten groundwater monitoring wells; an assessment of groundwater and soil quality; an evaluation of hydrogeologic conditions; a preliminary evaluation of soil conditions above the water table; and, an increased understanding of the extent and sources of groundwater contamination.

PHASE II REMEDIAL INVESTIGATION FINDINGS

The Phase II program was conducted in 1995 and was comprised of: installation and sampling of nine additional monitoring wells and two borings to bedrock; installation and sampling of thirteen vapor probes; excavation and soil sampling of 89 test pits; and treatability testing of select soil samples.

The Phase II RI showed that petroleum hydrocarbon contamination is present in Site near-surface soil (less than 15 feet); in deep soil to depths of 60 feet; and in soil at the water table (smear zone) about 150 to 170 feet below ground surface. Petroleum hydrocarbon concentrations are also present in soil vapor at depths of 50, 100 feet and below, and continue to be present in groundwater. Petroleum chemicals in groundwater are detectable extending for about one mile within the Spokane Regional Aquifer. The ground water flow direction beneath the site is north-northwest.

The Phase I and II work is documented in a report titled Final-Draft Phase II Remedial Investigation Report – North Market Street Site Spokane, Washington, June 1996. The Phase II RI Report presents a summation of previous investigations conducted at the site and the findings of the Phase II RI program.

SUPPLEMENTAL REMEDIAL INVESTIGATION FINDINGS

Additional RI work has been conducted at the Site since completion of the Phase II RI. The work began in July 1996 and consisted of installing five monitoring wells.

In July 1998, four soil borings were drilled to the smear zone and the soil samples were collected for treatability testing. The sample testing indicated that microbes capable of biodegrading the petroleum hydrocarbon contamination are present and a large reduction in contaminant mass is achievable. Groundwater contamination continues to be

present at the facility and beyond facility boundaries. Intermittent detection of free product has been observed during monitoring.

WHAT HAPPENS NEXT?

At the end of the 30-day comment period, Ecology will review and respond to all written comments received, and will revise the document, if necessary. A Responsiveness Summary will be prepared if applicable and made available at the repositories. Following finalization of the engineering design report, cleanup work will begin at the Site. The PLPs consultant will make available a bid package that will include specifications for the work and materials to be used in the cleanup action.

HOW CAN I BE INVOLVED?

- ◆ **REVIEW the Preliminary Engineering Design.**

The Site documents at the Spokane Public Library/Hillyard Branch are available any time during regular library hours. To review documents at Ecology, contact Johnnie Harris at (509) 456-2751 to schedule an appointment. Reviews may be scheduled for Monday through Thursday, 8-5 p.m. by appointment.

- ◆ **Send in your WRITTEN COMMENTS January 18, through February 20, 2001 to:** Mr. William J. Fees, P.E., at Ecology (see box on page one for details).

- ◆ **SHARE THIS INFORMATION with any individuals or groups you think are interested in the Site.**