



King County

Department of Natural Resources and Parks

Solid Waste Division

KING COUNTY BROWNFIELDS PROGRAM
CHRISTENSEN PROPERTY
BROWNFIELDS ASSESSMENT FACT SHEET #2
February, 2007

Project Name:	Christensen Property.
Location:	1117 Washington Avenue, Enumclaw, WA.
Site Description:	Site is a vacant 0.41 acre lot at the northwest corner of Washington Avenue and Railroad Street. It is zoned commercial and the parcel number is 3966900005.
Site History:	In 1928, Shell Oil Co. established a bulk oil distribution facility on the site that included 4 above ground storage tanks (ASTs) and 2 underground storage tanks (USTs) with a combined capacity of over 73,000 gallons. The facility supplied fuel dealers in the area with a variety of petroleum products which were shipped into and out of the facility by truck. Besides leaded gasoline (both regular high octane ethyl), diesel fuel, heating oil/kerosene, and lubricating oils were handled at the site. Hans Christensen purchased the property from Shell Oil Company in 1970 and operated the business until 1983 when he leased it to Associated Petroleum Products (AAP) of Tacoma. The facility was decommissioned in the late 1980s and the last of the tanks removed in 1992. The site has been vacant since then. In 1996, it was listed on the state Department of Ecology's list of confirmed and suspected contaminated sites after petroleum contamination was found during utility work on Railroad Street in front of the site in 1994.
King County Brownfields Program:	The King County Solid Waste Division has received grant funds from the U.S. Environmental Protection Agency (EPA) to conduct environmental assessment and cleanup on contaminated Brownfield properties. King County's Brownfields Program uses the funds to hire consultants to conduct the assessment and cleanup work on behalf of public and nonprofit entities. The Brownfields Program website is: http://www.metrokc.gov/dnrp/swd/brownfields/index.asp .
Assessment Descriptions:	In the summer and fall of 2006, the Brownfields Program used EPA grant funds to conduct Phase I and Phase II Environmental Site Assessments of this site. The Phase I assessment was conducted in July and August and included a complete review of the site history, inspection of the property and historic aerial photos, database search of pertinent records (tax assessment, ownership, Ecology files, etc.) and interviews with individuals who may have knowledge about site operations and history. The Phase II assessment was conducted in September and October and included excavation of 10 test pits to depths between 6- and 10½-feet below ground surface (bgs) and 7 direct push soil borings to depths of 20 feet to collect soil and groundwater samples for laboratory analyses.
Reason for Assessments:	The Phase I assessment was conducted in accordance with the American Society of Testing and Materials (ASTM) Standard E-1527-05 and provided information on site history that meets EPA's standard of "All Appropriate Inquiry" and which preserves the opportunity for a qualified applicant to apply for an EPA cleanup grant. The Phase II assessment characterized the site contamination and provides recommendations for remedial action and cleanup cost estimates necessary for a cleanup grant application.

<p>Results:</p>	<p>The Phase I assessment verified that the site as been used for the storage and transfer of bulk petroleum products since the late 1920s. Storage was in both above and below ground tanks. The tanks have all been removed, as was a limited amount of contaminated soil in 1998.</p> <p>The test pit samples and soil borings confirm the release of gasoline and diesel petroleum products. These hydrocarbons are generally confined to the central interior of the site and the northeast corner of the property. Contaminants that exceed the state’s cleanup standards include benzene (0.16-5.2 mg/kg), ethylbenzene, xylenes and diesel range petroleum hydrocarbon (2,300 to 13,000 mg/kg). On-site contamination is no deeper that 8 feet bgs which puts it well within the range of recovery by excavation. Soil contamination extends off site along Railroad Street and on the west side of the property adjacent to the paved alley. The offsite contamination has not been delineated, but it is not considered to be a threat to human health or the environment.</p> <p>Groundwater samples found benzene above the state’s drinking water cleanup standard along the property boundary on Railroad Street, and diesel range petroleum hydrocarbon at the northeast corner of the site. Heavy lube oil contamination was found in groundwater along the western boundary. Contamination of the shallow groundwater (8 ft.-12 ft. deep) is no cause for concern since drinking water in the area comes from aquifers that are 200 feet deep. The area is underlain by 75 foot thick mudflows from Mt. Rainier that do not host potable groundwater resources. Copies of the final report may be viewed at the King County Solid Waste Division, 201 South Jackson Street, Suite 701, Seattle, WA, 98104, and at the City of Enumclaw, 1309 Myrtle Avenue, Enumclaw, WA, 98022. See contact information below for more information.</p>
<p>Conclusions/ Next Steps:</p>	<p>The assessment information provides enough information for a qualified entity, such as the City of Enumclaw, to apply to EPA for a cleanup grant if they so choose. Based upon this study, between 2700 and 4500 tons of soil may have to be removed and/or treated on site to achieve cleanup. The “unrestricted use” cleanup levels for soil set by the state are 2,000 mg/kg for diesel range hydrocarbons, 0.03 mg/kg for benzene, 6 mg/kg for ethylbenzene and 9 mg/kg for xylenes.</p>
<p>Contact Information:</p>	<p><u>King County Contact:</u> Lucy Auster, Senior Planner, King County Solid Waste Division, 206-296-8476, lucy.auster@metrokc.gov. <u>City of Enumclaw Contact:</u> Michael Thomas, Community Development Director, City of Enumclaw, 360-615-5725, MikeT@ci.enumclaw.wa.us.</p>