

Juanita Village Site



Environmental Cleanup Completed and Compliance Monitoring Underway

This newsletter is to update you on the completion of the environmental cleanup at the Juanita Village LLC site, located in north Kirkland, north of NE Juanita Drive, east of Juanita Beach Regional Park and 97th Avenue NE, south of NE 120th Place, and west of 98th Avenue NE.

This site cleanup was completed by Juanita Village LLC in October 2002 followed by 9 months of compliance monitoring. Compliance monitoring is used to confirm that state cleanup requirements have been achieved and are maintained after cleanup. Typically compliance monitoring extends for 12 months. At this site, monitoring has occurred for nine months and compliance monitoring will continue for another three months.

The Washington State Department of Ecology (Ecology) is pleased to announce the completion of this cleanup in less than two years. The chemical of concern, perchloroethene (PCE), a common dry cleaning solvent, has been removed from groundwater. No occurrence of PCE or associated substances was detected in the soil above 2 parts per million (ppm). The cleanup level for PCE in soil is 19.6 ppm. No associated substances such as trichloroethene or dichloroethene were detected in soil or groundwater.

An estimated 300 pounds of PCE were removed during the cleanup using a cleanup treatment called Density Driven Convection Treatment. This

treatment injects air into groundwater, vaporizing the contaminants which are then vacuumed through filters. The contaminants are removed from the filters and recycled off site. The consultants Kane Environmental, Inc. of Seattle and Project Performance Corporation in Bellevue conducted the cleanup on schedule and in a timely manner.

Ecology's March 2001 newsletter announced the beginning of the environmental cleanup and the August 2002 newsletter reported that two of the four cleanup tasks were complete and the third task—groundwater treatment—was underway. At the printing of this newsletter, the groundwater cleanup task is completed, and task #4—compliance monitoring—is complete for soils and 75 percent complete for groundwater. Cleanup has therefore been achieved and we are in the last round of compliance monitoring for groundwater.

Public Review and Comment

There is no public comment period at this time. However, if you would like more information about the site, please visit one of the information repositories listed on the right. If you would have technical questions, please contact the Site Manager, Maura S. O'Brien at (425) 649-7249. All site documents are available for review at Ecology's Northwest Regional Office in Bellevue, and most site documents are available at the other information repositories. Contact information is listed on the right.

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For more information:

Maura S. O'Brien, P.G./HG. #869
WA Department of Ecology
Toxics Cleanup Program
3190 160th Avenue SE
Bellevue, WA 98008
E-mail: mobr461@ecy.wa.gov
(425) 649-7249

To be added to the mailing list:

Rebekah Padgett
WA Department of Ecology
Toxics Cleanup Program
3190 160th Avenue SE
Bellevue, WA 98008
E-mail: rp461@ecy.wa.gov
(425) 649-7257

Site documents can be reviewed at the following locations:

Kirkland Public Library
308 Kirkland Way, Kirkland
(425) 822-2459

City of Kirkland
Planning Department
Case #ADR-IIA-98-102
123 Fifth Avenue, Kirkland
Call for hours: (425) 828-1256

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/juanita/juan_hp.htm

Continuous Monitoring for New Discoveries

During any excavation or movement of soils at the site, the soils will be tested as an additional precaution in case a new discovery of contaminated soil is identified.

During excavation for buildings at the north end of the site, estimated to begin in late summer, soil testing will be conducted as an additional precaution.

For example, after closure of a laundromat/former dry cleaning business (one source of PCE), the concrete flooring was cut to access and sample the underlying soil for PCE and related substances. Approximately 100 linear feet were trenched and tested with no contamination detected. Field testing was conducted continuously using an organic vapor meter and no detections were identified. In addition, soil samples were collected along a grid and sent to the laboratory for further analysis. The laboratory results showed that all samples were below the cleanup level, five samples showed no detection, and two samples showed very low detections of PCE at 0.51 and 0.90 ppm—substantially below the soil cleanup level of 19.6 ppm—and no detection of related substances (see Kane Environmental, Inc. report, May 2002).

These soil results confirm earlier soil testing. Approximately 120 soil samples from various depths across the site have been collected and analyzed, and all soil results are below 2 ppm and substantially below their respective cleanup levels. Only a few soil samples have shown PCE detection and they are less than 2 ppm and substantially below the soil cleanup level of 19.6 ppm. Therefore, Ecology does not expect to find contaminated soils anywhere on the site; however, as an additional precaution, Ecology requires field screening and soil testing should any indication occur that suggests a new discovery of contamination.

Site Location and Background

Juanita Village property consists of nine tax parcels located in the Juanita Business District of Kirkland, King County, Washington. The property was developed in the 1960s and included a small strip shopping center, a drive-through bank, a stand-alone bank, a grocery store, and two gas stations. In the 1980s, the two gas stations were closed; one was demolished and the other was converted to an auto repair service. Buildings in the central and southern portions of the site were demolished in the first steps of cleanup. The former gas station underground storage tanks and hydraulic lifts were removed, soil and groundwater were tested, and no petroleum contamination was discovered.

A dry cleaning operation was present in the shopping center in the early 1970s. The dry cleaning operation at the site was most likely the source of groundwater contamination from PCE. The area or zone of groundwater contamination, called the groundwater plume, extends in the groundwater underlying the former dry cleaning operation to about 97th Avenue NE, about 700 feet. The initial maximum PCE groundwater concentration was 2600 parts per billion (ppb).

After 18 months of treatment, the plume has substantially decreased and many wells are at or below the cleanup level of 5 ppb with some wells showing elevated levels. The maximum groundwater concentration is now 70 ppb, substantially below the earlier level of 2600 ppb and with monitored natural attenuation this well will achieve cleanup level within 20 to 40 feet down gradient and within compliance monitoring. No PCE or related substances have been detected in the deep groundwater monitoring wells (40 to 50 feet below ground surface); and no PCE or related substances have been identified in soils.

Separate and in addition to the PCE groundwater contamination on the Juanita Village property, there is a second and smaller groundwater plume northeast of the property from a separate, former dry cleaning operation. This second PCE plume is referred to as the off-property PCE plume and is being treated both off-property at the source and on-property at the northeast corner of Juanita Village property. The smaller plume extends about 300 feet with an initial maximum concentration of 300 ppb. After 13 months of treatment, the PCE concentration in groundwater now ranges from less than 2 to 16 ppb.

Part of the Cleanup Action Plan used monitored natural attenuation to ensure that cleanup levels would be achieved before groundwater reached any down gradient receptor (Lake Washington for this site). After completion of the cleanup treatment, Ecology required that the estimated attenuation rates be calculated using field results and a worst case scenario. These attenuation model estimates again confirmed that the cleanup levels have been achieved and confirmed.

Juanita Village LLC entered the Prospective Purchaser Consent Decree with Ecology on November 7, 2000 to conduct this cleanup. This decree was recorded in Washington State Superior Court 00-2-16556-1 SEA. Juanita Village LLC did not cause the site contamination and has volunteered to clean up the site. The Consent Decree, the legal agreement to conduct the cleanup, will resolve the potential liability of Juanita Village LLC for known contamination at the site once cleanup—including compliance monitoring—is completed following Ecology's requirements.