

## Department Decision Recommendation

Site: Cascade School District (Peshastin-Dryden Elementary School) 10001 School Rd

FS # 18617191 ISIS Cleanup Site ID# 5641

City: Peshastin

County: Chelan

In keeping with the requirement of WAC 173-340-310 (5) I recommend that this site receive a No Further Action (NFA) with environmental covenant.

### Supporting Criteria:

In February 1993, two USTs (1,000 gallon unleaded; 1,000 gallon diesel) were removed and petroleum contaminated soil excavated to a depth of 27' below ground surface. A community well located 163' from the UST excavation was sampled in 1993 and reported not to have been impacted. Based on confirmation soil samples of the excavation in 1993, the release was appropriately remediated and reported cleaned with the exception of contamination left adjacent to the building foundation to protect the existing structure.

A follow-up investigation by Ecology in 2010 showed refusal of soil borings at approximately 27' below ground surface (bgs) and high localized concentrations at this depth in 2 of 4 soil samples. This data conflicts with the earlier sample data from the 1993 remediation and is likely explained by contaminated soil on the periphery of the excavation boundaries sloughing to the bottom and being backfilled. Sample SB-1 at 27' and 28' bgs provide a basis for this explanation, showing 'non-detect' contamination at 28' and 1900 mg/kg at 27'. Field observations with a PID instrument at both SB-1 and SB-5 support this conclusion.

Based on soil analytical data collected in 1993 and 2010, Ecology TPH spreadsheets to determine likelihood of soil continuing to pose risks to human receptors from soil direct contact and groundwater pathways were evaluated. The conclusions of the evaluation are listed below:

1. Worst case soil sample from March 1993 [3390 mg/kg] at 15' bgs showed a slightly elevated risk to human health via soil direct contact [Hazard Index = 1.21]. The two other samples taken at 15' bgs were also evaluated [1890 and 2870 mg/kg] with one being protective [ $HI < 1$ ] and the other not protective. This soil was removed from the excavation; however, contaminated soil was left in-place near the building foundation with likely contaminant concentrations similar to those analyzed. An environmental covenant for remaining soil contamination is advised.

2. Worst case sample of soils left in place from March 1993 [350 mg/kg] was evaluated to determine if it is protective of groundwater (if groundwater present). The evaluation shows a Hazard Index of 2.74 at this concentration in 'assumed' groundwater; however, the BTEX constituents do not contribute significantly to the hazard. Additionally, the TPH contaminant concentration is below residual saturation and incapable of contacting groundwater; therefore, the soil concentration is protective of groundwater.
3. The worst case soil sample from the 2010 [6700 mg/kg] sampling event was evaluated to determine if it is protective of groundwater (if groundwater present). The evaluation shows a Hazard Index of 2.51 and a predicted groundwater concentration of 1080 ppb, slightly above MTCA Method A cleanup level of 1000 ppb (with benzene not present). This soil concentration is above residual saturation limits but based on the likelihood of this being localized and of limited extent (as discussed earlier), it is unlikely that this soil would contact groundwater.

I recommend an environmental covenant be placed on the soil remaining below and near the structure. This soil poses a threat to human health through direct contact and should be removed if the building is demolished in the future.

This Department Decision Recommendation should be reviewed and re-evaluated based on any new information about this site.

Investigator(s) \_\_\_\_\_

Print and sign name(s) \_\_\_\_\_

DATE: \_\_\_\_\_

Section Manager \_\_\_\_\_

DATE: \_\_\_\_\_