Bothell Service Center Simon & Son

SHARP Report — Part 1 of 2

Go to cleanup history

• SHARP first assessment	v2024.04.18	Ecology Info	
• SHARP rating	Low	ERTS	none
• SHARP date	4/30/2024	CSID	427
• EJFlagged?	⃠ - No Override	FSID	33215922
• LD confidence level	low	VCP	NW2946, NW0794
• Cleanup milestone	cleanup implementation	UST ID	NA
• Assessor	Vance Atkins	LUST ID	NA

This section is blank if this is the first SHARP

Assessment Media	Scores	Confidence	Additional Factors	
Indoor air	C2	medium	multiple chemical types	⃠
Groundwater	C3	high	risk to off-site people	⃠
Surface water	D4	high	climate change impacts	✔
Sediment	D4	high	plant/animal tissue data	⃠
Soil	C2	high		

Location and land use info

9911 Main St. (formerly 18107 Bothell Way NE), Bothell, King County, 98011

Parcel(s)	9457200050 (formerly 2374200065)
Responsible unit	NWRO
Land use	mixed use

Sources reviewed

2023, 2023 3rd quarter Progress Report, City of Bothell

2019, Expansion of Bioremediation/Groundwater Recirculation System, Kane Environmental

2018, Final Cleanup Action Plan, Ecology

2017, Draft RI/FS, Kane Environmental

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Primary census tract	Associated census tracts
53033021803	SHARP it

Local demographics comments

Go to top

no comments

Source/source area description

Go to top

The Site parcel was formerly developed with a multi-tenant commercial building. The westernmost tenant space was occupied by a dry cleaner (Simon & Sons Drycleaning) between 1989 and 1999. A PCE release at the Site was discovered in 1999 and reported to Ecology in 2000. The Site parcel was acquired by the City of Bothell in 2009 as part of its downtown redevelopment efforts. The current site parcel incorporates the original parcel (2374200065), a vacated portion of State Highway 522, and portions of a parcel south of SR522. The Site parcel is undergoing redevelopment as a mixed-use commercial and multi-unit residential building.

Soil comments

Go to top

Subsurface investigations identified PCE and breakdown products to depths of up to 40 feet bgs. Shallow soil remediation conducted via limited soil excavation, ERH, and SVE operation. Deeper residual soil exceedances may be present, treating via bioremediation with Site groundwater.

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Groundwater comments

Go to top

Groundwater remdiation via bioremediation, water treatment, and recirculation occurred at Site. Bioremediaiton is ongoind after site redevelopment. Groundwater hot spots remain in shallow, intermediate, and deep aquifer elevations. Optimization and modification to current bioemediation is proposed to address residual groundwater exceedances.

Surface water comments

Go to top

no comments

Sediment comments

Go to top

Sammamish River approximately 700 feet to the south

Indoor air comments

Go to top

Soil vapor or indoor air data not available. HVOCs are present >soil and groundwater CULs underlying Site and current redevelopment. Building is mitigated via vapor barrier and passive venting.

Additional factors comments

Go to top

TCP Maps show Site location susceptible to Sea level rise/100 year storm events.

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Site contamination and cleanup history

Go to top

HVOCs in concentrations exceeding MTCA Method A and B cleanup levels occured in soil and groundwater beneath, and to the west, southwest, south, east, and southeast of the former structure on the Site property. Multiple interim investigations and remedial actions took place between 2000 and 2011. The preliminary interim remediation (2002) consisted of one-time application of in-situ chemical oxidation (potassium permanganate) to surficial soils and via injection to shallow (<20feet bgs) groundwater. Initial groundwater monitoring showed decreased concentrations of HVOCs, but subsequent monitoring indicated rebound of contaminant of concern, some to concentrations greater than the original concentrations. A second remedial action took place in 2004-2008. An SVE system was installed in 2004 south and beneath of the original drycleaner tenant space and operated through 2011. In-situ chemical oxidation (hydrogen peroxide) was injecting into selected monitorng wells in 2005. Rebound and potential mobilizatiosn of PCE was observed after treatment, possibly from release of formerly adsorbed contaminants. DNAPL was also discovered in one monitoring well, and removed by pumping between 2006 and 2007. Additonal in-situ chemical oxidation (chelated iron and sodium persulfate) was performed in 2006 and 2007. In 2007 and 2008, additional injection wells were installed on-Site for application of emulsified vegetable oil product, which was injected via wells and temporary borings. Another application was conducted in 2010. The SVE system operation did not appear to be removing substantial PCE from the vadose zone, and was interpreted to be mitigating potential vapor intrusion into the commercial building. The system was removed during Site demolition in 2016. An RI/FS was performed in 2016 after the Site was vacated and surface structures removed. Soil and groundwater contamination was delineated at the Site, with exceedences to depths of up to 55 feet bge. Groundwater occurs in three zones between 5 and 55 feet bgs, and the local aquifer lower boundary is dense glacial till. Groundwater flow is generally to the south-southeast.

Overflow - Site contamination and cleanup history

Go to top

A multi-phase remedial system was installed at the Site in 2018, consisting of electrical resistance heating (ERH), bioremediation injection with groundater treatment and reinjection, limited SVE, and shallow soil hot spot excavation. The remedial system intent was to remove or treat contaminated soils in the original source area, as well as downgradient soil and groundwater contamination. Installation and system startup began in 2018. The ERH system operated until late 2018, with accompanying SVE operating into 2019. Selected inactive ERH wells were used for supplemental injection points of bioremediation substrate. Site redevelopment with mixed-use commercial and multi-unit residential building begain in 2019. Groundwater bioremediation and monitoring is ongoing at the Site. Optimization and modification to current bioemediation is proposed to address residual groundwater exceedances.

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04/30/2024

SHARP First Assessment

Low SHARP Rating

SHARP Report — Part 2 of 2

Conceptual site model

SHARP