

## 4.12 Hazardous Materials

### 4.12.1 Introduction to Resources and Regulatory Requirements

This section discusses the potential for East Link Project alternatives to encounter hazardous materials that could pose risks to human health and the environment or that could create control or cleanup requirements for the project. This section also discusses the potential for alternatives to introduce new sources of hazardous materials contamination. This analysis has been performed in general accordance with American Society for Testing and Materials (ASTM) search radius guidance (ASTM E 1527), as referenced in the Washington State Department of Transportation's (WSDOT's) *Environmental Procedures Manual M 31-11* (WSDOT, 2007).

Hazardous materials may be classified in a number of different categories based on laws and regulations that define their characteristics and use. These categories include hazardous waste, dangerous waste, hazardous substances, and toxic substances.

Applicable laws and regulations include the following:

- Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (42 U.S.C. 9601, et seq.)
- Superfund Amendment and Reauthorization Act (SARA)
- Resource Conservation and Recovery Act of 1976 (RCRA), as amended (42 U.S. C. 6901, et seq.)
- Clean Water Act (CWA) (33 U.S.C. Section 1 251, et seq.)
- Toxics Substances Control Act (TSCA) (15 U.S.C. 2601-2629)
- Dangerous Waste Regulations (Washington Administrative Code [WAC] 173-303)
- Model Toxics Control Act (MTCA) (WAC 173-340)
- Underground Storage Tanks (USTs) (WAC 173-360)
- Sediment Management Standards (WAC 173-204)

Related resources and regulatory requirements are covered under historical and current land uses in the study area (Section 4.2), geologic conditions (Section 4.11), and groundwater conditions (Section 4.9).

The U.S. Environmental Protection Agency and Washington State Department of Ecology (Ecology) maintain databases to track sites with potential or confirmed hazardous material releases to the environment, and they monitor facilities that manage hazardous materials as part of their operations.

An environmental database search of the study area was conducted in February 2007 (Environmental Data Resources, Inc. [EDR], 2007) that identified sites in or adjacent to the project limits that have a record of hazardous material, substance, or waste handling, or that have the potential to be contaminated or have been contaminated in the past. The database search report identifies the locations of the sites and assigns an identification (ID) number for each site. The locations of the hazardous material sites are shown in the maps in Appendix G3. Appendix G3 also presents tabular information about these sites.

### 4.12.2 Affected Environment

The study area for the hazardous materials analysis is the area up to 600 feet (approximately 1/8 mile) from and including each alternative. This study area was selected because if contamination is present, the proximity of these sites could affect the project or the project could affect the site.

Sound Transit acquired information about sites with known contamination or potential contamination within the study area, as well as relevant historical conditions within the study area. Sound Transit collected information from multiple data sources, including the following:

- Environmental agency database records
- Ecology Northwest Regional Office site files
- Historical fire insurance maps (Sanborn maps)
- Historical aerial photographs
- Online County Assessor data (King County Geographic Information System Center web site)
- Current topographic and geological maps
- Windshield reconnaissance of the study area

Based on all of the above information, sites were categorized into three risk categories: high, medium, and low. The purpose of this risk analysis was to prioritize sites to determine the need for avoidance, remediation, and/or mitigation while considering associated costs and liability. The risk levels are defined as follows:

- **High.** This risk level identifies sites that may be substantially contaminated and may create liability for Sound Transit either due to construction activities or by virtue of acquiring all or a portion of the site, such as for a maintenance facility. High-risk sites typically involve contaminants that are difficult to treat (e.g., perchloroethylene [PCE]), have large volumes of contaminated materials, or have long histories of industrial or commercial use. A site may also be considered high risk if limited information is available about the site.
- **Medium.** This risk level identifies sites where the nature of potential contamination is known based on existing investigation data, the potential contaminants are not extremely toxic or difficult to treat, and probable remediation approaches are straightforward. It typically involves sites located within or adjacent to project construction limits that have residual soil contamination, such as petroleum products, or nonadjacent sites that have groundwater contaminated with petroleum products.
- **Low.** This risk level identifies sites where the nature of potential contamination is known based on existing investigation data, and the sites are not expected to have noticeable impacts on the project due to their location. It typically involves sites that have had a one-time spill event that is reported to be cleaned up or sites that are not directly adjacent to the alternative right-of-way and do not have groundwater contamination.

Table 4.12-1 lists the number of sites and the risk categories identified within each segment. In addition to sites designated as high, medium, and low risk, there are also sites where hazardous materials have been used but where no previous releases have been reported. These sites are considered as minimal risk sites and are listed in Appendix G2 as Risk Level 4 sites.

TABLE 4.12-1  
Number of Sites within 600 Feet of Each Segment

Risk Category	Segment				
	A	B	C	D	E
High	0	4	8	5	4
Medium	0	4	26	24	11
Low	45	6	18	12	8

**What is PCE?**

PCE, or perchloroethylene, is a manmade chemical used for dry-cleaning clothes, degreasing metal parts, and as an ingredient in the manufacturing of other chemicals.

PCE contamination in soil may be cleaned up by excavating the soil, incinerating it, and disposing of the ash in a landfill.

It can also be treated in place using a method known as **soil vapor extraction**. Soil vapor extraction uses a network of perforated pipes placed in the soil to remove PCE vapor from the pore spaces in soil and pass it through activated carbon where it can be captured and eventually destroyed.

The particular method used to clean up PCE contamination in soil depends upon conditions such as PCE concentration, access to contaminated soil, cost of soil disposal, and other site-specific factors.

**4.12.3 Environmental Impacts**

This section discusses the potential impacts that the project may have on the affected environment and potential impacts that the known and suspected contaminated sites may have on project development and Sound Transit liability. Operation impacts and construction impacts are considered. Meeting the regulatory requirements associated with construction and operation of this project is a part of the East Link Project.

**4.12.3.1 No Build Alternative**

With the No Build Alternative, removal or cleanup of potentially hazardous materials in the study area, including contaminated soil or groundwater, would not occur and the potential uncontrolled migration of existing contaminants may continue.

**4.12.3.2 Impacts During Operation**

Most impacts associated with encountering sites with existing contamination would occur during construction, as discussed in Section 4.12.3.3. However, long-term operational impacts could occur when Sound Transit acquires properties that are the source of contamination and therefore would require an ongoing cleanup responsibility. Two such properties, Eastside Disposal (343A) and Sound Oil Company/Davy Tree (343C), would be acquired for the BNSF Alternative (B7). The Safeway Warehouse Distribution Center (221C) would be partially acquired for the NE 16th At-Grade (D2A), NE 16th Elevated (D2E), and NE 20th (D3) alternatives. Such sites are typically associated with groundwater contamination or are large and complex. The actual operational impacts at such hazardous materials sites cannot be identified or assessed without detailed evaluations of

site-specific conditions, which would be performed prior to or during construction.

Impacts during operation could also result from the use of hazardous materials during maintenance activities on the tracks and at the maintenance facility to be located in either segment D or E. During track maintenance, there would be an extremely low chance of a small spill of diesel fuel or hydraulic fluid from the maintenance vehicles. Maintenance activities at the maintenance facilities would involve the use of hazardous materials including lubricants, solvents, and other chemicals. In addition, hazardous waste (e.g., petroleum products, waste solvents) would be generated. Hazardous waste generated at the maintenance facilities would be managed according to applicable regulatory requirements, which minimize the risk of exposure. In addition, the facilities would be constructed with engineering controls to limit and contain releases and spills. The likelihood of impacts (i.e., releases) from operation and maintenance activities would be low.

#### 4.12.3.3 Impacts During Construction

Potential construction impacts could result from encountering existing soil or groundwater contamination and from encountering containers holding hazardous materials. Soil or groundwater contamination could be found on or adjacent to contaminated sites and in utility corridors, which can be conduits for contamination. Containers that hold hazardous materials include above- and underground storage tanks, which typically contain petroleum products, and pole-mounted electrical transformers, which may contain PCB-contaminated transformer oil. The likelihood of impacts from encountering existing contamination or hazardous materials containers depends upon the extent and characteristics of the contamination and hazardous materials. A variety of potential impacts, both beneficial and adverse, would be possible, including the following:

- Construction activities, such as grading, in the vicinity of these materials could release contaminants to soil, groundwater, and surface water.
- Contaminated materials might be uncovered, allowing more direct exposure to the public.
- Contamination might spread as a result of construction.
- Contamination that otherwise would remain in place and potentially migrate might be discovered and addressed by the project.

- To accommodate project construction, contamination might be cleaned up earlier than otherwise would occur.
- Contamination might be prevented by removing potential existing sources, such as USTs and aboveground storage tanks (ASTs), before they cause releases.

Demolition, removal, and disposal of existing structures during planned construction could release hazardous materials. Asbestos (commonly used in construction because of its insulation, fireproofing, and soundproofing qualities) causes cancer and other respiratory problems; asbestos is most dangerous when crushed, broken, or otherwise disturbed so that fibers are released to the air and inhaled. Lead is often found in lead pipes, copper pipes with lead solder, and interior and exterior painted wood, siding, window frames, and plaster, and can cause lead poisoning if handled inappropriately and inhaled or ingested during demolition.

Potential construction impacts could result from accidental release of hazardous substances (such as lubricants and fuels needed for heavy equipment), a hazard common to all construction projects but particularly acute for construction over water or in areas where stormwater runs off into water bodies such as Lake Washington. Spills of any size, if not contained, could harm water quality, vegetation, and wildlife in the immediate area and downstream, and large spills could require emergency response.

Measures Sound Transit would use to minimize the potential for accidental release of hazardous substances during construction include the following:

- Conduct assessments of sites where contamination may be present to identify the presence and extent of any contaminants. Sites where stormwater facilities are proposed are especially important to survey because any contaminants exposed there could be carried offsite when the stormwater is discharged.
- Locate underground and aboveground storage tanks and fuel lines before construction to reduce the potential for breakage and resulting spills.
- Survey structures that would be demolished to determine whether they contain hazardous building materials such as asbestos, lead-based paint, and PCBs.
- Specify construction techniques that minimize disturbance to areas where contamination may

exist, and phase construction activities to follow cleanup activities whenever possible.

- Prepare a comprehensive contingency and hazardous substance management plan and a worker health and safety plan to reduce potential risks to human health.
- Prepare a spill prevention, control, and countermeasure plan and a stormwater pollution prevention plan to prevent the release of pollution and hazardous substances to the environment.

The following subsections describe the potential impacts on the project from known contaminated sites based on their location relative to the proposed alternatives. The focus of the discussion is on high-risk sites because these are the sites that are anticipated to have the greatest impact on project development. Some of these sites could also have long-term impacts if they involve continuing cleanup responsibilities (e.g., groundwater monitoring) even after the project is complete. The actual impacts on the environment at each hazardous materials site cannot be identified and assessed without detailed evaluations of site-specific conditions, which would be performed prior to or during construction. Site assessment may be conducted in a phased approach to address cost, schedule, and technical requirements associated with the construction process. Details about these high-risk sites are discussed under each segment.

**Segment A**

There are no high-risk sites, no medium-risk sites, and 45 low-risk sites within the study area for Segment A. Segment A begins in the Downtown Seattle Transit Tunnel and enters I-90 via the D2 HOV ramps and

continues along I-90 across Lake Washington and Mercer Island. Most of the construction of Segment A is proposed to occur within the existing I-90 right-of-way. Accordingly, any contamination that may exist or that has migrated from sites within the Segment A study area are not expected to affect the project.

**Segment B**

There are four high-risk, four medium-risk, and six low-risk hazardous material sites within Segment B. The Bellevue Way (B1) and BNSF (B7) alternatives are the only alternatives with the potential to impact any high-risk sites. Table 4.12-2 summarizes the potential impacts, and Exhibit 4.12-1 shows their location relative to each alternative.

**Site 412A** is located adjacent to the at-grade rail profile of the Bellevue Way Alternative (B1). The Kevik Cleaners site has been used as a dry cleaning business since at least the 1960s and is currently occupied by Enatai Cleaners. Soil gas probing and groundwater monitoring investigations indicated that PCE is present in the soil gas and in the groundwater in excess of MTCA Method A cleanup level (Dalton, 1994).

**Site 412B** is also located adjacent to the at-grade profile of the Bellevue Way Alternative (B1). The site currently operates as a gas station, and is hydraulically downgradient from the Kevik Cleaners site (412A). Soils at the gasoline station have been reported to contain PCE in excess of MTCA Method A Cleanup Levels (EMCON, 1994).

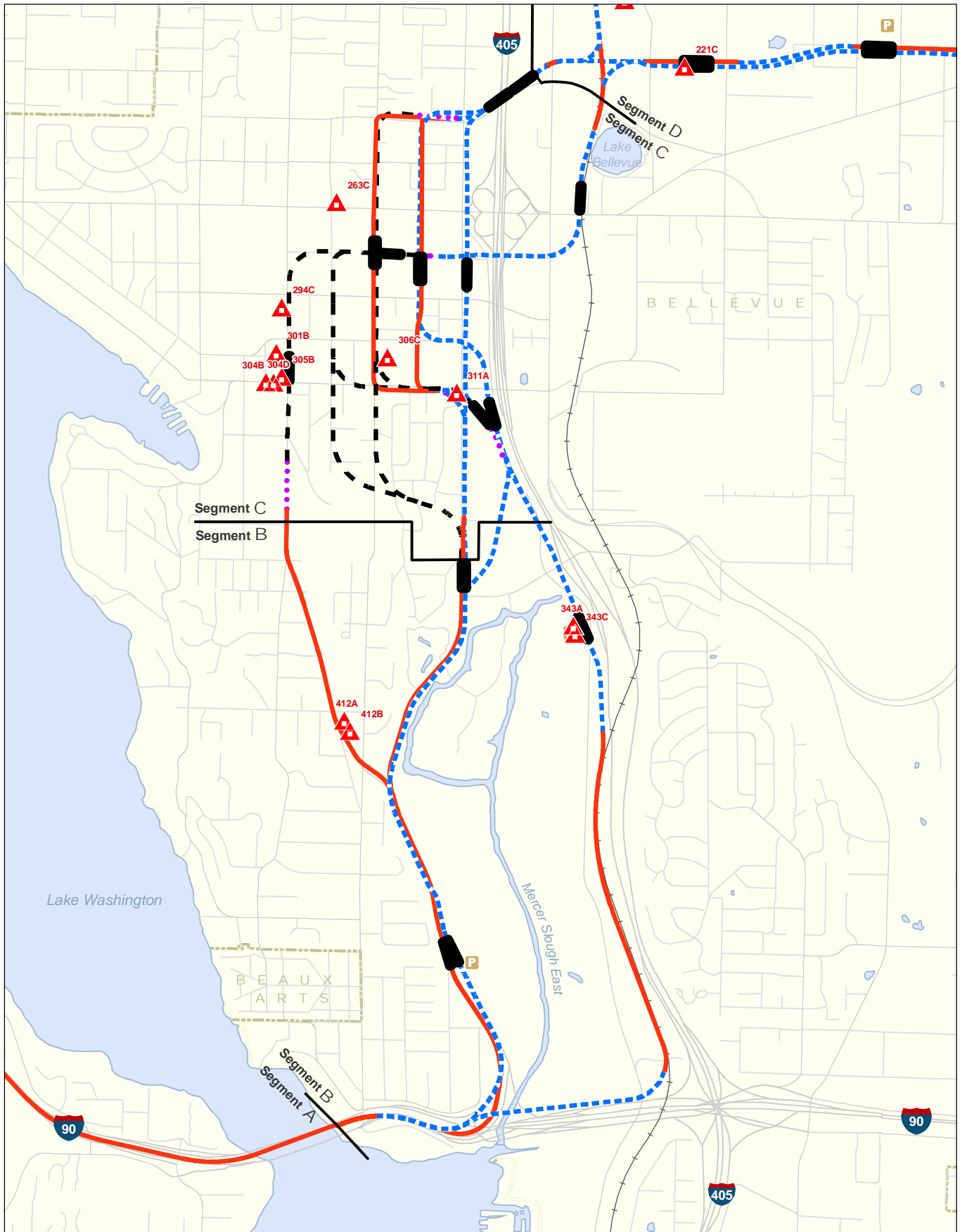
**Site 343A** would be acquired to construct the park-and-ride lot and 118th Avenue SE Station proposed

TABLE 4.12-2  
Potential Impacts of High-Risk Hazardous Material Sites within Segment B








Map ID	Site Name and Address	Potential Impacts by Alternative					
		Potential Impact	B1	B2A	B2E	B3	B7
412A	Kevik Cleaners at 1614 Bellevue Way	Encounter soil and groundwater contaminated with PCE and petroleum products.	✓				
412B	Unocal #4384 at 1624 Bellevue Way	Encounter soil and groundwater contaminated with PCE and/or petroleum products.	✓				
343A	Eastside Disposal also listed as Estates of James Bussee at 969 118th Avenue SE	Encounter soil and groundwater contaminated with petroleum products; suspected abandoned and/or unknown hazardous material.					✓
343C	Sound Oil Company/Davy Tree Service at 1021 118th Avenue SE	Encounter soil contaminated with petroleum products.					✓

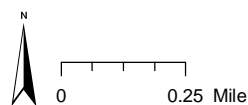
B1 = Bellevue Way Alternative  
B2A = 112th SE At-Grade Alternative  
B2E = 112th SE Elevated Alternative

B3 = 112th SE Bypass Alternative  
B7 = BNSF Alternative



Source: Data from Environmental Data Resources (2007), City of Bellevue (2005), and King County (2006).

- |   |                                       |   |                    |
|---|---------------------------------------|---|--------------------|
|  | High-Risk Site                        |  | At-Grade Route     |
|  | Proposed Station                      |  | Elevated Route     |
|  | New and/or Expanded Park-and-Ride Lot |  | Retained-Cut Route |
|   |                                       |  | Tunnel Route       |



**Exhibit 4.12-1 High Risk Hazardous Material Sites Within 1/8 Mile of Alternatives Segments B and C**  
East Link Project

under the BNSF Alternative (B7). Eastside Disposal currently operates on the site, and it is used as an equipment storage area for Allied Waste. The soils on the site were contaminated with petroleum products from a leaking UST. The soil was excavated until field screening methods indicated no presence of petroleum hydrocarbons. However, confirmation soil samples indicate that ethylbenzene, diesel, and possibly heavier oil concentrations exceeding MTCA Method A Cleanup Levels still exist in soils underneath the welding shop. The contaminated soil near the welding shop footprint was not remediated due to engineering constraints (Hart Crowser, 1990).

**Site 343C** also would be acquired to construct the park-and-ride lot and 118th Avenue SE Station proposed under the BNSF Alternative (B7). This site was formerly occupied by Sound Oil Company and is now occupied by Davy Tree Service. Sound Oil Company had three USTs containing diesel and stove oil removed in August 1990, and soil was excavated when bioremediation failed at the site (Marsh, 1996). Contamination is now below MTCA Method A Cleanup Levels (Ecology, 2004).

### Segment C

There are 8 high-risk, 26 medium-risk, and 18 low-risk hazardous material sites within Segment C. In comparison to the other alternatives, the Bellevue Way Tunnel Alternative (C1T) would entail the greatest risks related to remediation and monitoring of contaminated property. Because of the number of sites and the nature and extent of potential contamination, in particular the PCE plume in the area of Bellevue Way between NE 4th Street and Main Street, the Bellevue Way Tunnel Alternative (C1T) would result in a greater risk of construction cleanup and long-term monitoring costs that could adversely affect the project. Table 4.12-3 summarizes the potential impacts, and Exhibit 4.12-1 shows their location relative to each alternative.

**Site 263C** is located one block north of the tunnel for the Bellevue Way Tunnel (C1T) and 106th NE Tunnel (C2T) alternatives, and one block west of the tunnel for the 108th NE Tunnel Alternative (C3T). In the past the site was used as a gasoline station and dry cleaner. Soil and groundwater were reportedly affected by a release of PCE at a depth between 7 and 18 feet below ground surface (bgs) at the center of the property (Golder Associates, 2004). A shallow groundwater aquifer is located at 14 to 18 feet bgs. It is not known whether the site's perched groundwater has affected the deeper regional aquifer.

#### Model Toxics Control Act Cleanup Regulation

The Model Toxics Control Act Cleanup Regulation, WAC 173-340, implements the Model Toxics Control Act (MTCA), RCW 70.105D, which sets forth strict requirements for site discovery and reporting, site assessments, and site remediation. Most importantly, the regulation defines standard methods used to assess whether a site is contaminated or clean.

**Site 294C** is located adjacent to the tunnel for the Bellevue Way Tunnel (C1T). It was home to a dry cleaning operation from 1951 to 1962. In the 1960s, the operation moved to an adjacent building. PCE is reportedly in the groundwater (Hart Crowser, 2001 and 2005). The plume of PCE extends to the south and southeast, south of the 315 Bellevue Way NE to beyond NE Second Street.

**Site 301B** is located adjacent to the tunnel for the Bellevue Way Tunnel (C1T). The site has been home to a variety of dry cleaning establishments since the 1970s. Site investigations have found PCE in the soil and groundwater (Hart Crowser, 1997).

**Site 304B** is located one block west of the tunnel for the Bellevue Way Tunnel (C1T). The site operated as a dry cleaning business from the 1950s through the late 1980s. Investigations conducted in 2006 confirmed the presence of petroleum hydrocarbon, related volatile organic compounds (VOCs) and PCE in the soil and groundwater (PES Environmental, 2006). The suspected sources of the petroleum and related VOC contamination include the Unocal and Ernst property located to the north of the site. The suspected source of PCE and related VOCs contamination is the former dry cleaners. There is an east to southeast groundwater flow direction across most of the site.

**Site 304D** is located one block west of the tunnel for the Bellevue Way Tunnel (C1T). Ecology has no information available for this site. The EDR report indicated that the final Independent Remedial Action Report has been received. This site is considered to be high risk because of its location adjacent to the tunnel route and a high level of uncertainty due to lack of information. This site is possibly linked to the petroleum hydrocarbon and PCE releases from nearby sources.

**Site 305B** is located adjacent to the tunnel for the Bellevue Way Tunnel (C1T). In the past the site was used by a gas station. Investigations revealed gasoline product in the groundwater beneath the southern part of the site (Maul, 2003). A groundwater recovery/treatment system and vapor extraction system was installed in 1991 to remediate the groundwater and soil. Chlorinated solvents are

TABLE 4.12-3  
Potential Impacts of High-Risk Hazardous Material Sites within Segment C

Map ID	Site Name and Address	Potential Impacts by Alternative						
		Potential Impacts	C1T	C2T	C3T	C4A	C7E	C8E
263C	Former Thinker Toys at 10610 NE 8th Street	Encounter groundwater contaminated with PCE.	✓	✓	✓			
294C	Capri Property at 315 Bellevue Way NE	Encounter soil and groundwater contaminated with PCE.	✓					
301B	Bellevue Way Dry Cleaners at 103 Bellevue Way NE	Encounter soil and groundwater contaminated with PCE.	✓					
304B	EV11 LLC at 10335 Main Street	Encounter groundwater contaminated with PCE.	✓					
304D	Safeway Property at 10301 Main Street	Encounter groundwater contaminated with PCE.	✓					
305B	Unocal #0587 at 5 Bellevue Way NE	Encounter soil and groundwater contaminated with PCE and petroleum products.	✓					
306C	Benenson Capital at 110 108th Avenue NE	Encounter soil and groundwater contaminated with PCE.			✓			
311A	Westmark Financial Services at 11121 Main Street	Encounter soil and or groundwater with unknown contaminants		✓	✓			

C1T = Bellevue Way Tunnel Alternative  
C2T = 106th NE Tunnel Alternative  
C3T = 108th NE Tunnel Alternative

C4A = Couplet Alternative  
C7E = 112th NE Elevated Alternative  
C8E = 110th NE Elevated Alternative

present to the south of the site from an offsite source (Maul, 2003). Sampling results from a recent groundwater report showed the presence of PCE in one well and indicated that, although the evidence is not consistent across the site, in general, site conditions were improving (ENSR, 2006).

**Site 306C** is located adjacent to the tunnel for the 108th NE Tunnel Alternative (C3T). The site was formerly used by a dry cleaner. A remedial investigation found PCE in a downgradient storm sewer manhole. Soil vapor extraction was used to reduce the PCE concentration in the soil from 1996 to 2000. All soil in the vicinity of the storm sewer manhole containing PCE concentrations greater than Method B cleanup levels were removed (Floyd Snider McCarthy, 2003). Groundwater is not believed to be affected by the historic PCE releases (Floyd Snider, 2007).

**Site 311A** is located adjacent to the tunnel for the 106th NE Tunnel (C2T) and 108th NE Tunnel (C3T) alternatives. There is no information about the site available from Ecology.

### Segment D

There are 5 high-risk, 24 medium-risk, and 12 low-risk hazardous material sites within Segment D. All of the alternatives have potential impacts to two or more of the sites, with the NE 20th Alternative (D3) potentially affecting all of them. The SR 520 Alternative (D5) avoids most of the high-risk sites because it travels north of the Bel-Red Road development. Table 4.12-4 summarizes the potential impacts, and Exhibit 4.12-2 shows their location relative to each alternative.

**Site 146C** is located within one block of all of the alternatives. The site has been home to a variety of dry cleaners since 1977. In 2000, PCE was identified in the soil and groundwater. In November 2004, a soil vapor extraction system began operating to remove the contamination from the soil. Monitoring from September 2004 to October 2005 showed that contaminants still exceed groundwater standards (SCS Engineers, 2006).

**Site 176C** is located one block east of the retained-cut profile of the NE 20th Alternative (D3). It is currently used by a dry cleaning business. It is on the voluntary cleanup program due to releases from the dry cleaning

TABLE 4.12-4  
Potential Impacts of High-Risk Hazardous Material Sites within Segment D

Map ID	Site Name and Address	Potential Impacts	Potential Impacts by Alternative			
			D2A	D2E	D3	D5
146C	Sato Corporation at 14820 NE 24th Street	Encounter groundwater contaminated with PCE.	✓	✓	✓	✓
176C	Bel Red Road Retail LLC at 15260 NE 20th Street	Encounter soil and groundwater contaminated with petroleum and halogenated organic compounds.			✓	
188	BP Exploration Oil, Inc. at 1960 148th Avenue NE	Encounter soil and groundwater contaminated with petroleum and benzene.			✓	
174B	Willamette Industries at 1899 1120th Avenue NE	Encounter soil contaminated with petroleum.	✓	✓	✓	✓
221C	Safeway Warehouse Inc. Distribution Center at 1227 124th Avenue NE	Encounter soil contaminated with petroleum.	✓	✓	✓	

D2A = NE 16th At-Grade Alternative  
D2E = NE 16th Elevated Alternative

D3 = NE 20th Alternative  
D5 = SR 520 Alternative

business and former gas station. Contaminants of concern include chlorinated solvents and petroleum hydrocarbon. Cleanup activities have been ongoing since 2004 and include soil vapor extraction and air sparging.

**Site 188** is located adjacent to the retained-cut profile of the NE 20th Alternative (D3). This site was formerly occupied by a retail gas station and is currently occupied by restaurants. Investigations conducted in the early 1990s found benzene concentrations in excess of MTCA Method A Cleanup Levels in the soil. In 1993, four gasoline USTs were removed and soil vapor extraction and groundwater air sparging began. In June 2000, soil borings showed no petroleum hydrocarbons exceeding MTCA Method A levels (Environmental Resolutions, Inc., 2006a). According to a groundwater monitoring report in 2006, three of nine wells sampled contained benzene concentrations in excess of MTCA Method A Levels (Environmental Resolutions, Inc., 2006b).

**Site 174B** is located within one block of all of the alternatives. Weyerhaeuser currently uses the site as a manufacturing facility for corrugated containers. The site was occupied by Willamette Industries and used as a forest product manufacturing facility prior to being purchased by Weyerhaeuser in 2002. Petroleum contamination was reportedly cleaned up as of 2002.

**Site 221C** would be partially acquired for the at-grade profile and stations of the NE 16th At-Grade

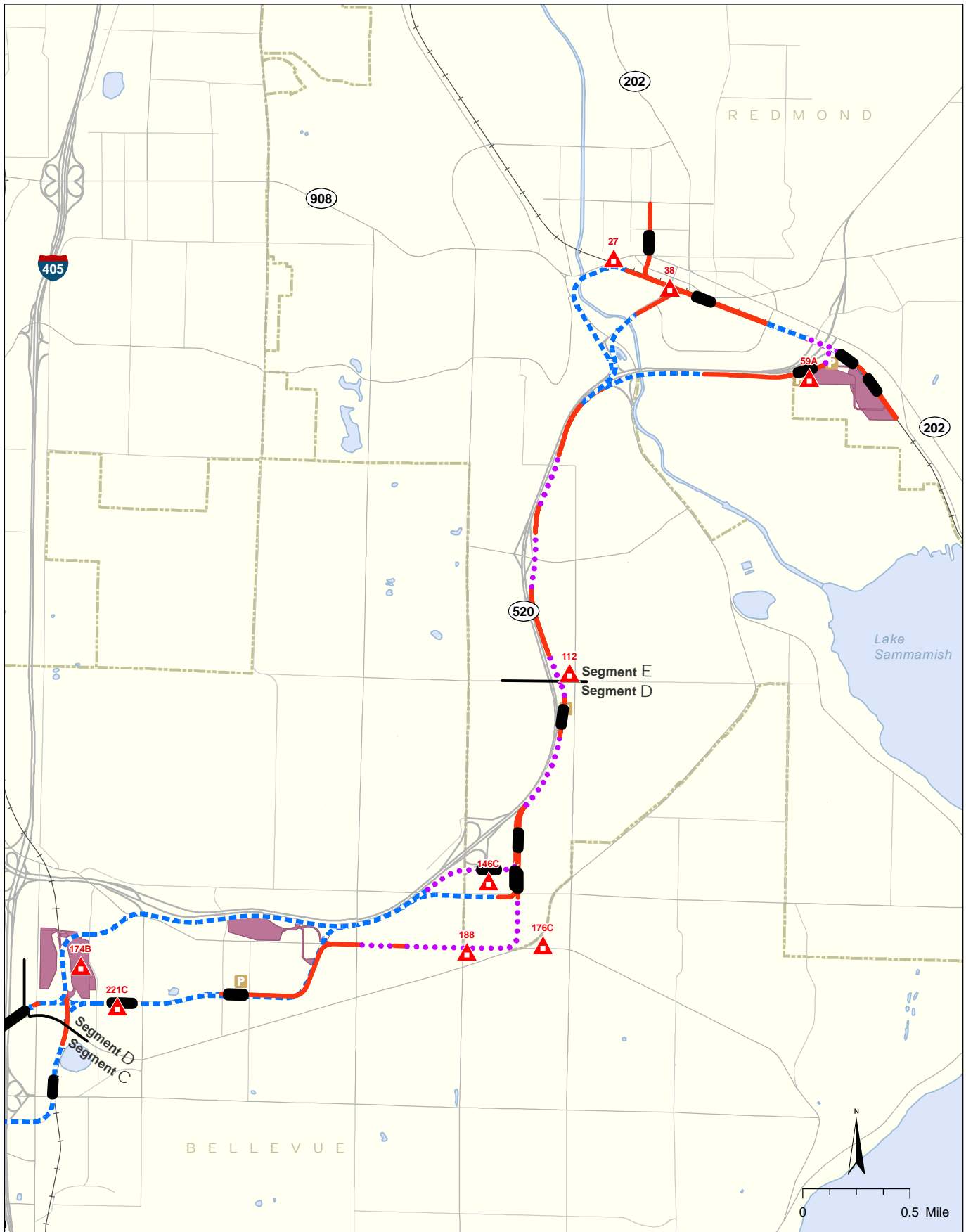
(D2A), NE 16th Elevated (D2E), and NE 20th (D3) alternatives. The 3.5-acre site was formerly used by Safeway as a warehouse and distribution center. The five-building complex includes a retail/warehouse, cross dock, cold storage, office building, and a former vehicle maintenance shop. It is currently vacant. The site has had as many as 20 USTs at one time or another, and leaking USTs were reported in 1995, 1998, and 2001. These leaking USTs were removed, and remedial actions for petroleum-contaminated soil were conducted. This site is of high concern because of the scale of the past operations and its location as a station, which leads to a high likelihood of encountering contamination. During development, previously undiscovered contaminated soil may be encountered within the Safeway Warehouse site due to historical releases from these USTs.

### Segment E

There are 4 high-risk, 11 medium-risk, and 8 low-risk hazardous material sites located within Segment E.

The Redmond Way (E1) and Marymoor (E2) alternatives have the potential to impact all of the sites, and the Leary Way Alternative (E4) has potential to impact three of the sites. E4 avoids Site 27, but otherwise all sites are in areas where alternatives overlap. Table 4.12-5 summarizes the potential Impacts, and Exhibit 4.12-2 shows their location relative to each alternative.





Source: Data from Environmental Data Resources (2007), City of Bellevue (2005), and King County (2006).

**Exhibit 4.12-2 High Risk Hazardous Material Sites Within 1/8 Mile of Alternatives Segments D and E**  
*East Link Project*

- |                  |                    |                                       |
|------------------|--------------------|---------------------------------------|
| High-Risk Site   | At-Grade Route     | Maintenance Facility and Access Track |
| Proposed Station | Elevated Route     | New and/or Expanded Park-and-Ride Lot |
|                  | Retained-Cut Route |                                       |
|                  | Tunnel Route       |                                       |

TABLE 4.12-5  
Potential Impacts of High-Risk Hazardous Material Sites within Segment E

Map ID	Site Name and Address	Potential Impacts by Alternative			
		Potential Impacts	E1	E2	E4
27	Cleaning Center of Redmond at 15796 Redmond Way	Encounter soil and groundwater contaminated by halogenated organic compounds.	✓	✓	
38	King County Materials Lab at 7733 Leary Way NE	Encounter soil contaminated by petroleum, groundwater contaminated by halogenated organic compounds.	✓	✓	✓
59A	Dunkin and Bush, Inc. at 17301 NE 70th Street	Encounter soil and groundwater contaminated by unknown contaminant.	✓	✓	✓
112	Microsoft at 4001 156th Avenue NE	Encounter soil and groundwater contaminated by petroleum, nonhalogenated organic compounds, and halogenated solvents.	✓	✓	✓

E1 = Redmond Way Alternative

E2 = Marymoor Alternative

E4 = Leary Way Alternative

**Site 27** is located adjacent to the at-grade rail profile of the Redmond Way Alternative (E1) and one block west of the at-grade rail profile of the Marymoor Alternative (E2). The site is currently used by a dry cleaning business and reportedly has generated PCE-contaminated waste (City of Redmond, 2004). Environmental remedial actions conducted to date include soil vapor extraction and groundwater monitoring (Ecology, 2002).

**Site 38** is located adjacent to the at-grade profile of all the alternatives. The King County Department of Transportation Road Services Division, Materials Laboratory and Surveyors, Animal Control, Office of Civil Defense, and Sheriff's Department have all occupied portions of the property. A subsurface investigation of the site was conducted in 2002. Soil and groundwater samples indicated that total petroleum hydrocarbons (TPH) as diesel-range organics (DRO) and oil-range organics (ORO), as well as PCE are at levels exceeding their applicable cleanup levels as media of concern (City of Redmond, 2004).

**Site 59** is located one block south of the at-grade rail profile of the Redmond Way (E1) and Leary Way (E4) alternatives, and adjacent to the at-grade profile of the Marymoor Alternative (E2). The site is currently used by a large industrial painting contractor that handles solvents and solvent-based paints. There are gasoline USTs on the site. During an investigation, petroleum products were observed on the ground near the fuel pump area. This area was cleaned up in 1992 when two USTs were removed. In 1994, a site hazard assessment was conducted and the soil samples were reportedly below MTCA Cleanup levels. No Further Action was granted to the site in 1995 (Seattle-King County Department of Public Health, 1995).

**Site 112** is located adjacent to the retained cut profile of all the alternatives. EDR lists this site as awaiting assessment by the Potentially Liable Person (PLP). The site has confirmed or suspected presence of petroleum, nonhalogenated organic compounds, and halogenated solvents in the soil or groundwater. No other information is available about this site.

### Maintenance Facility

Potential construction impacts could result from using hazardous materials, (e.g., lubricants, fuels, and solvents) during construction and/or from encountering sites with existing soil or groundwater contamination. The potential for encountering hazardous material during construction of the maintenance facilities is relative to the number of businesses associated with hazardous materials that would be displaced and the extent of excavation that may be required during facility construction. Table 4.12-6 lists the number of sites with known releases (risk levels 1, 2, and 3 or high, medium and low) and quantifies the number of sites with potential releases (risk level 4 or sites with historical uses of hazardous materials but no reported release) for each maintenance facility.

The 116th Maintenance Facility (MF1) would not require acquisition of any known sites. Site 174B, previously discussed under Segment D, would be acquired as part of the BNSF Maintenance Facility (MF2). The property that would be acquired for the SR 520 Maintenance Facility (MF3) contains three Level 4 sites.

Site 59A, previously discussed under Segment E, would be acquired as part of the SE Redmond

TABLE 4.12-6  
Number of Hazardous Material Sites at Maintenance Facilities

		Maintenance Facility (MF)					
		116th MF (MF1)	BNSF MF (MF2)	SR 520 MF (MF3)	SE Redmond MF (MF5)		
Sites with Known Release (Risk Levels High, Medium, and Low)		All	All	All	E1	E2	E4
174B	Willamette Industries		✓				
59A	Dunkin and Bush				✓	✓	
<b>Number of Sites with Potential Release (Risk Level 4)</b>		0	0	3	11	8	6

Maintenance Facility (MF5). The property that would be acquired for MF5 would contain between 6 and 11 Level 4 sites, depending on which Segment E alternative were chosen.

#### 4.12.4 Potential Mitigation Measures

Through final design, Sound Transit would minimize impacts from known sites by avoiding contaminated sites, or portions of sites, as practical. By minimizing encounters with hazardous materials, the project would reduce exposure risk, as well as potential delays, construction costs, and liability associated with site acquisition and cleanup. Cleanup efforts implemented before or during construction would reduce potential long-term impacts. Avoiding contaminated sites would also reduce the opportunity for beneficial impacts associated with cleanup.

As part of the project, Sound Transit would comply with hazardous materials regulatory requirements associated with project construction and operations.