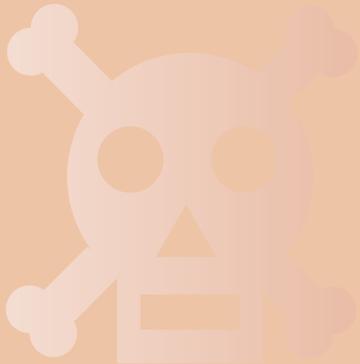


22 March 2005

**SR 520 Bridge Replacement
and HOV Project Draft EIS**

Appendix I

**Hazardous Materials
Discipline Report**



SR 520 Bridge Replacement and HOV Project Draft EIS

Hazardous Materials Discipline Report



Prepared for
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March 22, 2005

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- 1 Bibliography of Ecology Records Reviewed
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- 1 Project Vicinity Map
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Acronyms and Abbreviations

AST	aboveground storage tank
ASTM	American Society for Testing and Materials
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CORRACTS	Corrective Action Sites
CSCSL	Confirmed or Suspected Contaminated Sites List
CWA	Clean Water Act
Ecology	Washington State Department of Ecology
EDR	Environmental Data Resources, Inc.
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
HOV	high occupancy vehicle
HSL	Hazardous Sites List
ICR	Independent Cleanup Report
ID	identification
ISA	Initial Site Assessment
kg	kilogram
LF	landfill
LQG	large quantity generator
LUST	leaking underground storage tank
MOHAI	Museum of History and Industry
mph	miles per hour
MTCA	Model Toxics Control Act
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NGVD	National Geodetic Vertical Datum
NOAA	National Oceanic and Atmospheric Administration



NPL	National Priorities List
PCB	polychlorinated biphenyls
PSI	Preliminary Site Investigation
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation and Recovery Information System
SQG	small quantity generator
TSCA	Toxic Substances Control Act
USC	United States Code
UST	underground storage tank
WA-ICR	Washington State Independent Cleanup Report program
WSDOT	Washington State Department of Transportation



Introduction

This report identifies areas near or within the SR 520 Bridge Replacement and HOV Project corridor that contain, or have the potential to contain, hazardous materials, hazardous wastes, or contaminated environmental media such as soil, groundwater, sediment, or surface water.

Why are hazardous materials considered in an EIS?

Hazardous materials; hazardous substances; solid, hazardous, or dangerous waste; and contaminated environmental media are considered in an EIS to assess their effects on the proposed project. The concern is that a release or threat of release of contaminants during or after construction of the project could harm human health or the environment. Identification and evaluation of possible effects during the EIS process allows mitigation measures to be identified. Measures may include changes in the alignment (avoidance), identification of areas that require additional investigation before right-of-way acquisition, and implementation of other measures that are protective and reduce environmental liability and associated costs.

By reviewing information regarding sites of potential contamination, the handling of any hazardous materials can be governed in compliance with the following federal and state laws listed below.

Federal

- Clean Air Act (CAA), 42 USC 7401 et seq.
- Clean Water Act (CWA), 33 USC 1251 et seq.
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 USC 9601 et seq.

Hazardous Materials—Materials that are in use that are toxic or harmful to human health or the environment and are regulated under federal Clean Air Act (CAA), Clean Water Act (CWA), Toxic Substances and Control Act (TSCA), or Resource Conservation and Recovery Act (RCRA) regulations. Examples include asbestos, lead-based paint, and toxic chemicals such as polychlorinated biphenyls (PCBs).

Hazardous Substances—Materials that are in use that may be toxic or harmful to the environment, but are not regulated by the rules cited above. Examples include petroleum products such as gasoline, diesel, and oils.

Solid Waste—Discarded materials including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, and household activities. Excluded are domestic sewage, industrial discharges, and nuclear materials.

Hazardous or Dangerous Waste—Solid wastes that are toxic or harmful and are regulated by federal RCRA and state Dangerous Waste regulations. These wastes include those that are characteristically reactive, corrosive, toxic, or ignitable as well as specified "listed" wastes.

Contaminated Media—Soil, sediment, groundwater, surface water, or air that has been contaminated by a release of a hazardous material, hazardous or dangerous waste, or hazardous substance. These may be regulated under federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), RCRA, or state Model Toxics Control Act (MTCA) regulations.



- Endangered Species Act, 7 USC 134, 16 USC 460 et seq.
- Federal Highway Administration, Technical Advisory T6640.8A (1987), *Supplementary Hazardous Waste Guidance* (1997), and *Hazardous Wastes in Highway Rights-of-Way* (1994)
- Occupational Safety and Health Act, 29 USC 651 et seq.
- Resource Conservation and Recovery Act (RCRA), 42 USC 321 et seq.
- Safe Drinking Water Act, 42 USC 300(f) et seq.
- Small Business Liability Relief and Brownfields Revitalization Act
- Toxic Substances Control Act (TSCA), 15 USC 2601 et seq.

Washington State

- Clean Air Act, Chapter 70.94 RCW
- Hazardous Waste Management Act, Chapter 70.105 RCW
- Model Toxics Control Act (MTCA), Chapter 70.105D RCW
- Occupation Health Standards, WAC 296-62
- Solid Waste Management Act, Chapter 70.95 RCW
- Underground Storage Tanks (USTs), Chapter 90.76 RCW
- Washington State Department of Transportation (WSDOT), *Environmental Procedures Manual*, Section 447, March 2004.
- Water Pollution Control Act, Chapter 90.48 RCW

What are the key points of this report?

Effects would be similar for the build alternatives and are principally temporary effects during construction. The No Build Alternative scenarios would each affect the transportation of hazardous materials and substances across Lake Washington, though in different ways. Under the Continued Operation scenario, transportation of hazardous materials across Lake Washington would continue to increase across Lake Washington on the Evergreen Point Bridge and I-90. Under the Catastrophic Failure scenario, all hazardous materials would have to be transported across Lake Washington via I-90 or north or south of the lake.



In the Seattle project area, an operating service station at the SR 520/Montlake interchange would be displaced, requiring removal of USTs and demolition of structures. The Queen City Yacht Club that handles small quantities of hazardous waste would also be affected. The quality of the sediments below the displaced dock is not known. An additional UST site and a leaking UST (LUST) site adjacent to the project may be affected. Abandoned municipal landfill sites have been identified near the Washington Park Arboretum. Previous studies have concluded that the nature of the waste disposed and the age of the historical landfill activities are unlikely to present a threat to human health or the environment, but possible effects on the project exist.

In the Eastside project area, a LUST site would be affected by the location of one of the stormwater treatment facilities. There could be up to five LUSTs or other regulatory listed sites under the 4-Lane Alternative and up to eight LUSTs or other sites under the 6-Lane Alternative that are located adjacent to the project. Four of these Eastside sites have a letter of No Further Action (NFA) from the Washington State Department of Ecology (Ecology). However, because of the fuel storage and maintenance activities at some of these sites and the possibility that previous investigations and cleanup activities may not have identified all subsurface contamination, possible effects cannot be dismissed.

Mitigation for the identified effects may include:

- Conducting additional studies and building surveys to confirm the presence or absence of contaminated environmental media
- Locating USTs and associated piping
- Preparing a comprehensive contingency and hazardous substances management plan; worker health and safety plan; spill prevention, control, and countermeasures plan; and stormwater pollution prevention plan
- Managing and disposing of hazardous or contaminated materials in accordance with applicable requirements
- Using construction techniques that minimize disturbance or release of contaminated media



What are the project alternatives?

The SR 520 Bridge Replacement and HOV Project area comprises neighborhoods in Seattle from I-5 to the Lake Washington shore, Lake Washington, and Eastside communities and neighborhoods from the Lake Washington shore to 124th Avenue Northeast just east of I-405. Exhibit 1 shows the general location of the project. Neighborhoods and communities in the project area are:

- Seattle neighborhoods – Portage Bay/Roanoke, North Capitol Hill, Montlake, University District, Laurelhurst, and Madison Park
- Eastside communities and neighborhoods – Medina, Hunts Point, Clyde Hill, Yarrow Point, Kirkland (the Lakeview neighborhood), and Bellevue (the North Bellevue, Bridle Trails, and Bel-Red/Northup neighborhoods)

The SR 520 Bridge Replacement and HOV Project Draft EIS evaluates the following three alternatives and one option:

- No Build Alternative
- 4-Lane Alternative
 - Option with pontoons without capacity to carry future high capacity transit
- 6-Lane Alternative

Each of these alternatives is described below. For more information, see the *Description of Alternatives and Construction Techniques Report* contained in Appendix A of this EIS.

What is the No Build Alternative?

All EISs provide an alternative to assess what would happen to the environment in the future if nothing were done to solve the project's identified problem. This alternative, called the No Build Alternative, means that the existing highway would remain the same as it is today (Exhibit 2). The No Build Alternative provides the basis for measuring and comparing the effects of all of the project's build alternatives.

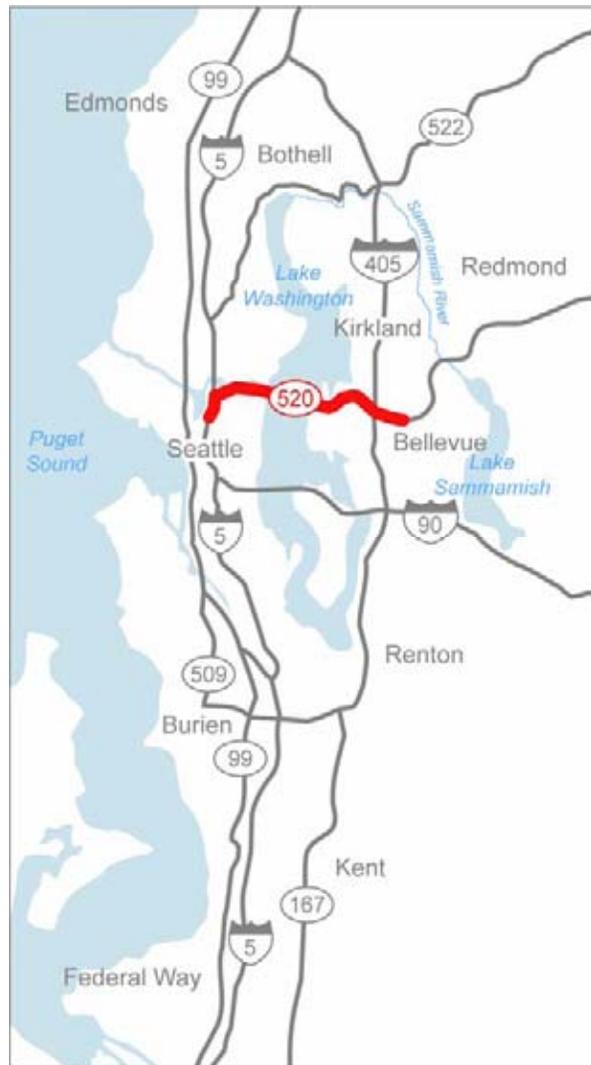


Exhibit 1. Project Vicinity Map



This project is unique because the existing SR 520 bridges may not remain intact through 2030, the project's design year. The fixed spans of the Portage Bay and Evergreen Point bridges are aging and are vulnerable to earthquakes; the floating portion of the Evergreen Point Bridge is vulnerable to wind and waves.

In 1999, the Washington State Department of Transportation (WSDOT) estimated the remaining service life of the Evergreen Point Bridge to be 20 to 25 years based on the existing structural integrity and the likelihood of severe windstorms. The floating portion of the Evergreen Point Bridge was originally designed for a sustained wind speed of 57.5 miles per hour (mph), and was rehabilitated in 1999 to withstand sustained winds of up to 77 mph. The current WSDOT design standard for bridges is to withstand a sustained wind speed of 92 mph. In order to bring the Evergreen Point Bridge up to current design standards to withstand at least 92 mph winds, the floating portion must be completely replaced.

The fixed structures of the Portage Bay and Evergreen Point bridges do not meet current seismic design standards because the bridge is supported on hollow-core piles. These hollow-core piles were not designed to withstand a large earthquake. They are difficult and cost prohibitive to retrofit to current seismic standards.

If nothing is done to replace the Portage Bay and Evergreen Point bridges, there is a high probability that both structures could fail and become unusable to the public before 2030. WSDOT cannot predict when or how these structures would fail, so it is difficult to determine the actual consequences of doing nothing. To illustrate what could happen, two scenarios representing the extremes of what is possible are evaluated as part of the No Build Alternative. These are the Continued Operation and Catastrophic Failure scenarios.

Under the Continued Operation Scenario, SR 520 would continue to operate as it does today as a 4-lane highway with nonstandard shoulders and without a bicycle/pedestrian path. No new facilities would be added and no existing facilities (including the unused R.H. Thompson Expressway Ramps near the Arboretum) would be removed. WSDOT would continue to maintain SR 520 as it does today. This scenario assumes the Portage Bay and Evergreen Point bridges

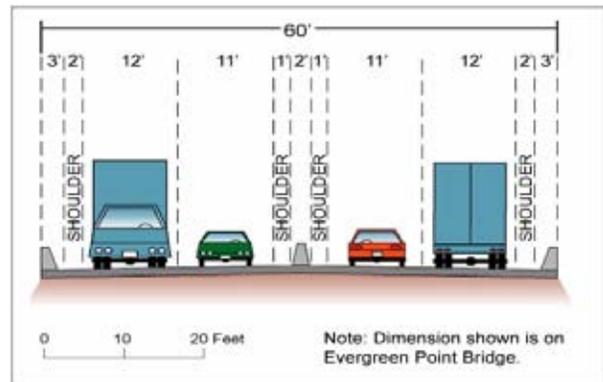


Exhibit 2. No Build Alternative



would remain standing and functional through 2030. No catastrophic events (such as earthquakes or high winds) would be severe enough to cause major damage to the SR 520 bridges. This scenario is the baseline the EIS team used to compare the other alternatives.

In the Catastrophic Failure Scenario, both the Portage Bay and Evergreen Point bridges would be lost due to some type of catastrophic event. Although in a catastrophic event, one bridge might fail while the other stands, this Draft EIS assumes the worst-case scenario—that both bridges would fail. This scenario assumes that both bridges would be seriously damaged and would be unavailable for use by the public for an unspecified length of time.

What is the 4-Lane Alternative?

The 4-Lane Alternative would have four lanes (two general purpose lanes in each direction), the same number of lanes as today (Exhibit 3). SR 520 would be rebuilt from I-5 to Bellevue Way. Both the Portage Bay and Evergreen Point bridges would be replaced. The bridges over SR 520 would also be rebuilt. Roadway shoulders would meet current standards (4-foot inside shoulder and 10-foot outside shoulder). A 14-foot-wide bicycle/pedestrian path would be built along the north side of SR 520 through Montlake, across the Evergreen Point Bridge, and along the south side of SR 520 through Medina, Hunts Point, Clyde Hill, and Yarrow Point to 96th Avenue Northeast, connecting to Northeast Points Drive. Sound walls would be built along much of SR 520 in Seattle and the Eastside. This alternative also includes stormwater treatment and electronic toll collection.

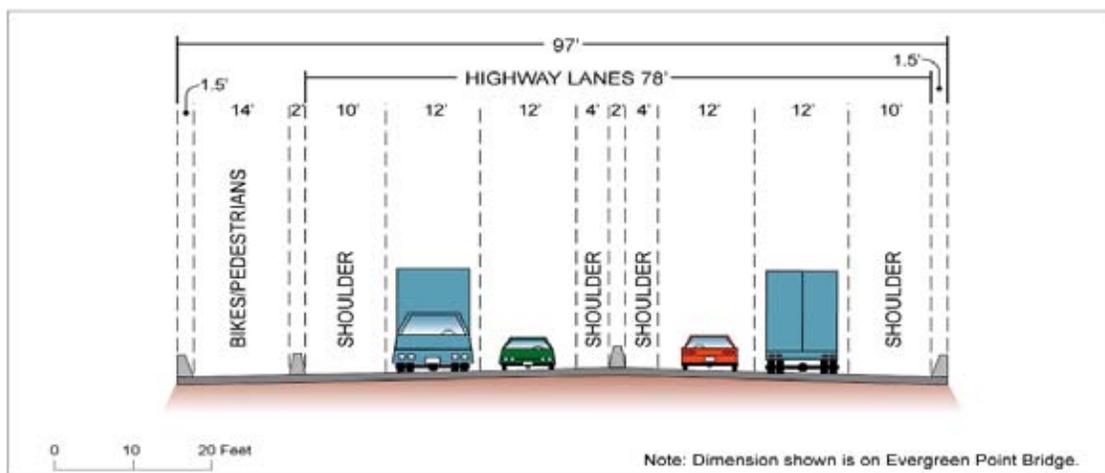


Exhibit 3. 4-Lane Alternative



The floating bridge pontoons of the Evergreen Point Bridge would be sized to carry future high-capacity transit. An option with smaller pontoons that could not carry future high-capacity transit is also analyzed. The alternative does not include high-capacity transit.

A bridge operations facility would be built underground beneath the east roadway approach to the bridge as part of the new bridge abutment. A dock to moor two boats for maintenance of the Evergreen Point Bridge would be located under the bridge on the east shore of Lake Washington.

A flexible transportation plan would promote alternative modes of travel and increase the efficiency of the system. Programs include intelligent transportation and technology, traffic systems management, vanpools and transit, education and promotion, and land use as demand management.

What is the 6-Lane Alternative?

The 6-Lane Alternative would include six lanes (two outer general purpose lanes and one inside HOV lane in each direction; Exhibit 4). SR 520 would be rebuilt from I-5 to 108th Avenue Northeast in Bellevue, with an auxiliary lane added on SR 520 eastbound east of I-405 to 124th Avenue Northeast. Both the Portage Bay and Evergreen Point bridges would be replaced. Bridges over SR 520 would also be rebuilt. Roadway shoulders would meet current standards (10-foot-wide inside shoulder and 10-foot-wide outside shoulder). A 14-foot-wide bicycle/pedestrian path would be built along the north side of SR 520 through Montlake, across the Evergreen Point Bridge, and along the south side of SR 520 through the Eastside to 96th Avenue Northeast, connecting to Northeast Points Drive. Sound walls would be built along much of SR 520 in Seattle and the Eastside. This alternative would also include stormwater treatment and electronic toll collection.

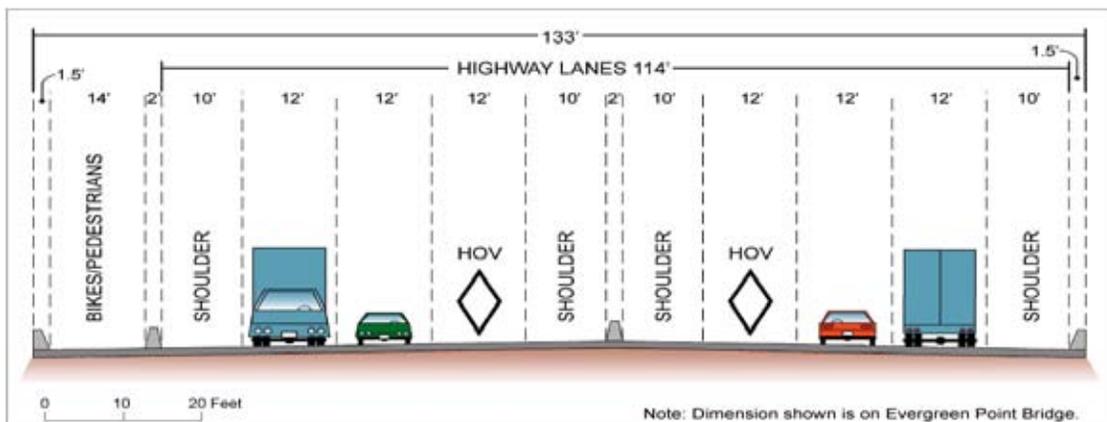


Exhibit 4. 6-Lane Alternative



This alternative would also add five 500-foot-long landscaped lids to be built across SR 520 to help reconnect communities. These communities are Roanoke, North Capitol Hill, Portage Bay, Montlake, Medina, Hunts Point, Clyde Hill, and Yarrow Point. The lids are located at 10th Avenue East and Delmar Drive East, Montlake Boulevard, Evergreen Point Road, 84th Avenue Northeast, and 92nd Avenue Northeast.

The floating bridge pontoons of the Evergreen Point Bridge would be sized to carry future high-capacity transit. The alternative does not include high-capacity transit.

A bridge operations facility would be built underground beneath the east roadway approach to the bridge as part of the new bridge abutment. A dock to moor two boats and maintain the Evergreen Point Bridge would be located under the bridge on the east shore of Lake Washington.

A flexible transportation plan would promote alternative modes of travel and increase the efficiency of the system. Programs would include intelligent transportation and technology, traffic systems management, vanpools and transit, education and promotion, and land use as demand management.

Affected Environment

How was information collected?

The hazardous materials discipline team obtained information on potential or existing conditions as well as relevant historical conditions within the project area. The study area for the hazardous materials analysis includes the proposed project footprint, as well as an area up to 1 mile from the center of the preliminary SR 520 right-of-way in accordance with American Society for Testing and Materials (ASTM) search radius guidance (ASTM E 1527), as referenced in the WSDOT *Environmental Procedures Manual* M 31-11. We acquired additional information about sites previously identified in agency databases as contaminated or potentially contaminated that are located within 1/4 mile of the preliminary SR 520 right-of-way. These sites were selected because, if contamination is present, the proximity of these sites could affect the project, or the project could affect the site.

We collected information from multiple data sources, including the following:



- Environmental agency database record search
- Ecology Northwest Regional Office site files
- Historical land use maps (Kroll Map Company 1938, 1956)
- Business or land use directories
- Historical fire insurance maps (Sanborn Maps 1968, 1983)
- Washington State Archive historical tax records (Puget Sound Archives 1900-1972)
- Current topographic and geological maps
- “Windshield” reconnaissance of the project corridor

Environmental Agency Records

In 2002, an environmental database research service, Environmental Data Resources, Inc. (EDR), collected information for the corridor area. EDR’s database search includes the sources listed in Exhibit 5. The EDR results were not independently verified. Environmental agency database records are based on the 2002 results; sites that may have been discovered since that time are not recorded.

Study Area Site Reconnaissance

We conducted a field reconnaissance, or “windshield” survey, from public access areas to confirm general site conditions (i.e., poor housekeeping, contamination, and/or cleanup activity). The primary purpose of this reconnaissance was to note the general age of structures in the study area that may require demolition, identify any other sites with contamination potential not previously recognized, and eliminate identified sites that do not pose a potential hazard to the project alternatives and boundaries. A building survey to determine the presence of hazardous building materials (asbestos, lead-based paint, polychlorinated biphenyls) was not performed as part of this EIS, but structures older than 1980 may have hazardous building materials present. (A building survey will be conducted at a later stage of the project, prior to demolition of structures.)



Exhibit 5. Environmental Regulatory Agency Databases Used

Database	Abbreviation	Contents
Comprehensive Environmental Response, Compensation, and Liability Information System	CERCLIS	Data on potentially hazardous waste sites that have been reported to the U.S. Environmental Protection Agency (EPA).
CERCLIS-No Further Remedial Action Planned	CERCLIS-NFRAP	Sites removed from CERCLIS where no contamination was found or where contamination was removed quickly.
National Priorities List	NPL	Hazardous waste sites for priority cleanup under the Federal Superfund Program (a subset of CERCLIS)
Resource Conservation and Recovery Information System	RCRIS	Sites that generate, transport, store, treat, and/or dispose of hazardous waste.
RCRA large quantity generators	RCRA-LQG	RCRA-LQG includes facilities that generate more than 1,000 kilograms (kg) of hazardous waste or more than 1 kg of acutely hazardous waste per month.
RCRA small quantity generators	RCRA-SQG	RCRA-SQG are facilities that generate between 100 kg and 1,000 kg of hazardous waste per month. Generators do not store, treat, or dispose hazardous waste. Hazardous waste generation indicates commercial or industrial activity that stores and uses hazardous materials.
RCRA Corrective Action Sites	RCRA-CORRACTS	RCRA-CORRACTS identify hazardous waste handlers with corrective action (cleanup) activity.
State Confirmed or Suspected Contaminated Sites List	CSCSL	State equivalent to CERCLIS. Ecology records indicate sites with confirmed or suspected presence of contaminated soil, groundwater, surface water, sediment, or air. ^a
State Hazardous Sites List/ Model Toxics Control Act (MTCA) Cleanup Program Sites Register	HSL	Contaminated sites that have been assessed and ranked using the Washington State Ranking Method. HSL is a subset of the CSCSL.
MTCA-No Further Action	MTCA-NFA	MTCA-NFA includes sites where Ecology has issued a letter of no further action in acceptance of site cleanup report.
State Independent Cleanup Reports List	ICR	Cleanup action reports received by Ecology for review and approval. Cleanup actions are done without Ecology oversight.
State Leaking Underground Storage Tank List	LUST	Reported leaking underground storage tank (LUST) incidents.
State Registered Underground Storage Tank List	UST	Registered underground storage tanks (USTs). Registration is not required for residential heating oil USTs.
State Landfill or Solid Waste Site Lists	LF	Inventory of state solid waste disposal facilities or landfills.

^a A bibliography of records reviewed at Ecology is provided as Attachment 1.



Based on our review of environmental database records and historical records and the site reconnaissance, we compiled a list and mapped those sites in the project area that were determined to be *reasonably predictable or substantially contaminated* (see *What are the hazardous materials and contaminated sites of concern in the project area?* below).

What is the historical land use of the project area?

The project area along the SR 520 corridor has changed over the last century. Seattle has experienced high-density urban development, and the Eastside has evolved from a rural area to a more densely developed urban environment. SR 520 crosses through primarily residential areas as well as some commercial and industrial areas.

In the early 1900s, industrial land uses were centered near Lake Union just west of SR 520. Today, those industrial land uses have been replaced by commercial businesses and high-density residential neighborhoods.

Land uses near the western shore of Lake Washington have changed in the last century. In 1916, the Ship Canal was built to link Lake Washington with Puget Sound. The creation of the Ship Canal caused water levels in the lake to drop 9 feet, exposing additional shore land and eliminating many shoreline wetlands near Foster Island. Some of these exposed areas on Foster Island were subsequently used as municipal landfill sites.

The Seattle project area remains largely residential but includes commercial areas, research facilities, the Museum of History and Industry (MOHAI), and parkland.

The rural Eastside areas of the early 1900s have been developed into urban, primarily residential areas along SR 520. Commercial land use areas have been developed near the on-ramps and off-ramps to SR 520 and along Northup Way.

What is the physical environment of the project area?

The physical environment of the project area determines the potential fate, or possible degradation products of contaminants, and transport of contaminants released to the environment. Fate and transport of contaminants, in general terms, is controlled by the mobility of the



chemicals; the rate of breakdown, or degradation, of the chemicals in the environment; pathways the chemicals can take to travel from their point of release, such as volatilization to the air or dissolution to water (surface water or groundwater); and whether the transport along those pathways is enhanced or limited by the physical environment. For example, an environment with soils that have high permeability can provide an easier means for a contaminant to travel (via groundwater) beyond the point of release. An environment where groundwater occurs close to the surface can provide a mechanism for contaminants to be readily transported away from the point of release.

The topography of the project area is the result of glacial erosion and deposition. Topographic elevations along the project corridor vary from approximately 175 feet National Geodetic Vertical Datum (NGVD) near I-5 to less than 5 feet NGVD in low-lying areas near Lake Washington. In the Eastside project area, elevation rises rapidly from sea level to 120 feet NGVD at Evergreen Point Road (Medina). In general, elevation increases to the east. Elevations at I-405 and 124th Avenue Northeast are 200 feet and 220 feet NGVD, respectively.

The project area is dominated by glacial deposits of Quaternary age. Geologic units in the project area include Mass Wastage (Qmw), Younger Alluvium (Qyal), Vashon Recessional Outwash (Qvr), Vashon Recessional Lacustrine Sediments (Qvrl), Vashon Till (Qvt), Vashon Advance Outwash (Qva), and Transitional Beds (Qtb). The till and transitional bed units generally have low permeability. The lacustrine and advance outwash units have low to medium permeability. The mass wastage (landslide deposits), alluvium, and recessional outwash have medium to high permeability. Transport of contaminants released to the environment can be limited or enhanced depending on the permeability of the underlying geologic units. See Appendix H, *Geology and Soils Discipline Report*, for additional information and maps of the geology in the project area.

Groundwater in the project area is extracted from three major aquifers – alluvial, upland, and sea-level. The alluvial aquifer comprises deposits that lie at ground surface on the shores of lakes, streams, and the Sammamish River valley. Because it is exposed at the ground surface, the alluvial aquifer is the most susceptible to contamination. The upland aquifer is located in the highlands between Lake Washington and the Sammamish River valley. It consists of glacial outwash deposits and permeable zones within the overlying till. The sea-level aquifer is the deepest regional aquifer (sea-level elevation or



deeper) and is a confined system. A confined aquifer system is bounded above and below by low permeability units and is often under pressure. See Appendix T, *Water Resources Discipline Report*, for more information about groundwater in the project area.

What are the results of the regulatory agency database search?

The hazardous materials discipline team reviewed the results of the environmental regulatory database search, which identified sites in or adjacent to the project area 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. Attachment 1 is a bibliography of the resources used to compile this discipline report. Exhibit 6 summarizes the databases reviewed, the specific distances searched, and the total number of sites within the search distance. The EDR report, which is incorporated by reference, includes figures that identify the locations of reportable sites within the specified search distances. EDR assigned a map identification number (ID) to each site. These map IDs are used throughout this discipline report and are shown on Exhibits 7 and 8.

Attachment 2 contains a list of the hazardous waste sites identified within 1 mile of the project area. Exhibits 7 and 8 show the locations of the confirmed or suspected contaminated sites within 1 mile of the project centerline. Exhibit 9 provides detailed information about the confirmed or suspected contaminated sites within 1/4 mile of the project centerline and other sites mapped from the environmental database searched. Exhibit 10 summarizes sites containing USTs within 1/4 mile of the center of the project centerline. Sites listed in Exhibit 10 may or may not have reported releases or contamination. Business names are reported as they appear in the database search results and may not reflect current ownership or operation.

What are the hazardous materials and contaminated sites of concern in the project area?

The project area contains hazardous material, hazardous waste, and confirmed or suspected contaminated environmental media sites. The following sections provide more information about our analysis and discuss the identified sites of concern. The sites are divided into two broad categories—*reasonably predictable sites* or *substantially contaminated sites*.



Exhibit 6. Summary of Agency Lists Reviewed

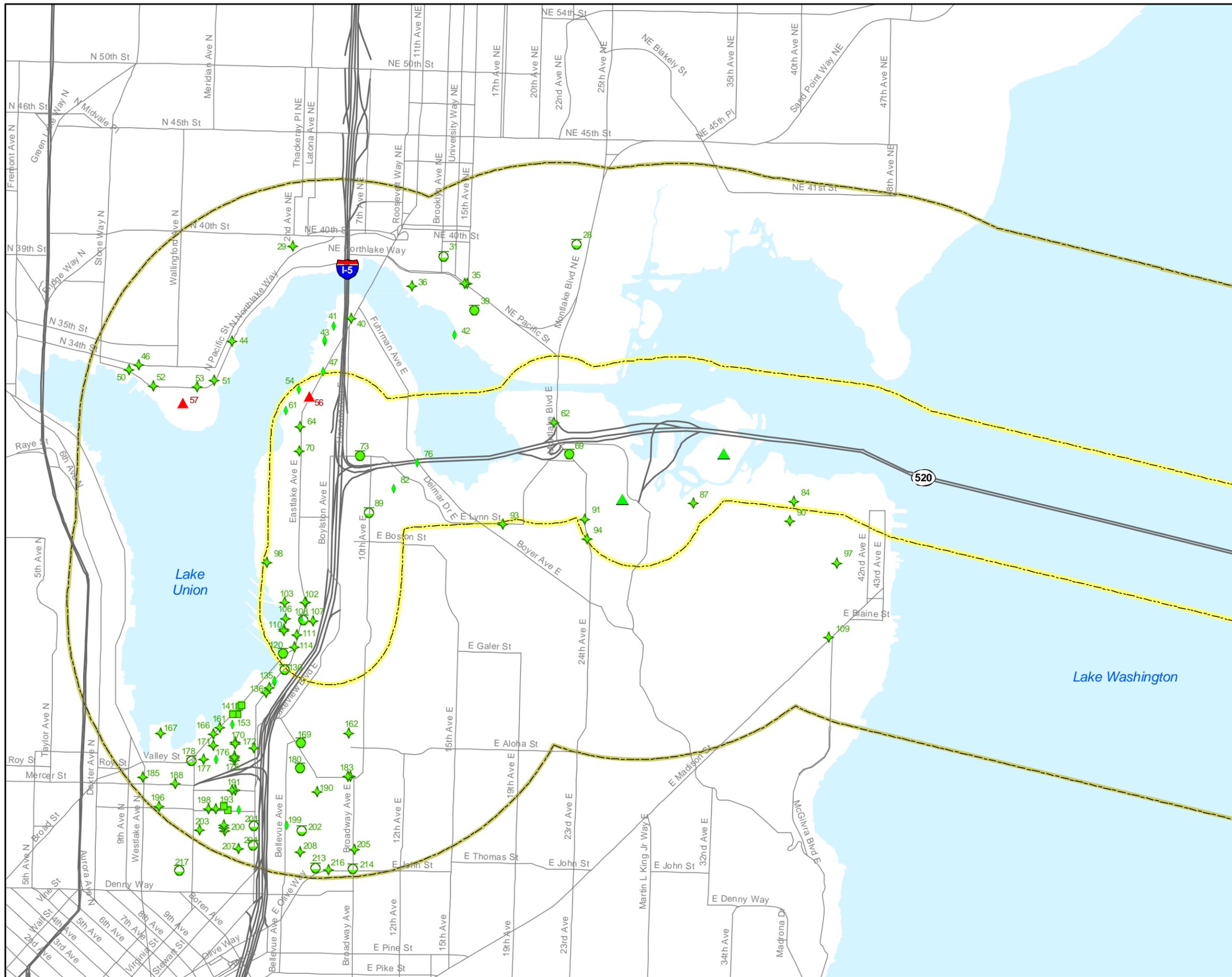
List	Acronym	Search Distance	Number of Sites on the List
National Priority List	NPL	0.5 mile	0
Comprehensive Environmental Response, Compensation, and Liability System List, including No Further Remedial Action Planned	CERCLIS CERCLIS-NFRAP	0.25 mile	4
Resource Conservation and Recovery Information System - Storage and Disposal Facilities Lists/RCRA Corrective Action Reports	RCRIS /CORRACTS	1 mile	1
RCRIS – Small Quantity Generators	RCRA – SQG	0.25 mile	176
RCRIS – Large Quantity Generators	RCRA – LQG	0.25 mile	12
Confirmed or Suspected Contaminated Sites List including sites designated as No Further Action	CSCSL CSCSL/MTCA-NFA	1 mile	53
Washington State Hazardous Sites List	HSL	1 mile	1
Washington State Independent Cleanup Report Database	ICR	0.5 mile	133
Washington State Solid Waste Facility Database	LF	0.5 mile	0
Leaking Underground Storage Tanks	LUST	0.5 mile	104
Registered Underground Storage Tanks	UST	0.25 mile	142

What are reasonably predictable sites?

Reasonably predictable sites are sites where the nature of the potential contamination is known based on existing investigation data or where it can be reasonably predicted based on best professional judgment.

Reasonably predictable sites are typically small to medium in size, the potential contaminants are not extremely toxic or difficult to treat, and remediation options are straightforward (WSDOT 2004). Examples of reasonably predictable sites include USTs, LUSTs, or residential structures that may contain hazardous building materials, such as asbestos or lead-based paint.





Reasonably Predictable Sites:

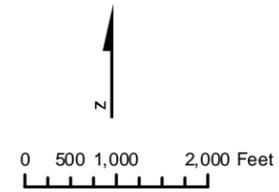
- CERCLIS-NFRAP, MTCA-NFA
- ◆ CSCSL
- LUST
- ◆ RCRA
- UST
- ▲ Landfill

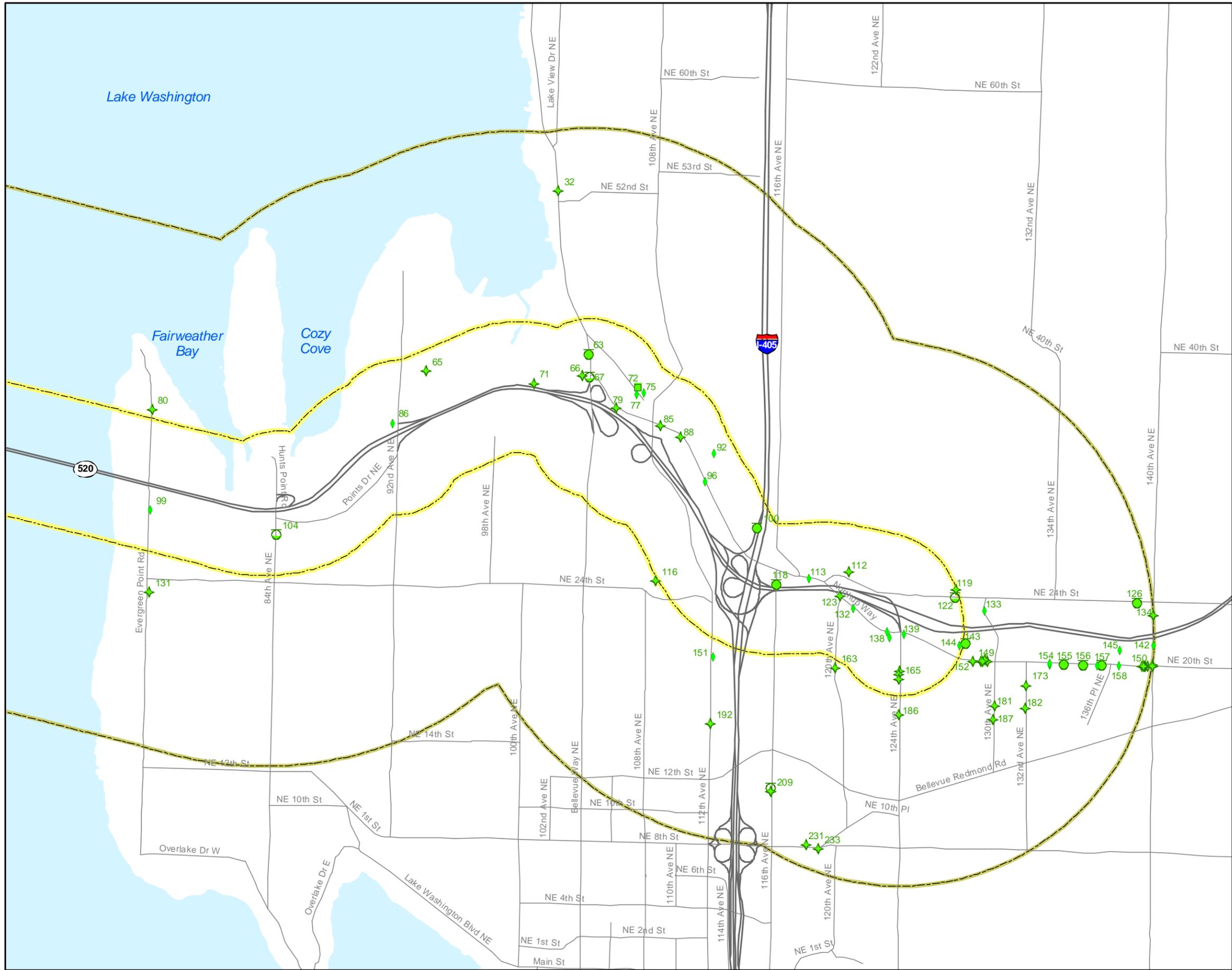
Substantially Contaminated Properties:

- ▲ CSCSL with chlorinated compounds or other

- 1/4 Mile of Project Area Centerline
- 1 Mile of Project Area Centerline

Note: Site numbers refer to map identification numbers assigned by EDR (2002). Many sites are listed under more than one environmental regulator agency database.





Reasonably Predictable Sites:

- CERCLIS-NFRAP, MTCA-NFA
- ◆ CSCSL
- LUST
- ◇ RCRA
- UST

Substantially Contaminated Properties:

No substantially contaminated sites identified in the Eastside Project Area

- 1/4 Mile of Project Area Centerline
- 1 Mile of Project Area Centerline

Note: Site numbers refer to map identification numbers assigned by EDR (2002). Many sites are listed under more than one environmental regulator agency database.

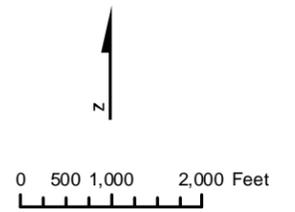


Exhibit 9. Substantially Contaminated and Reasonably Predictable Sites within 1/4 Mile of the SR 520 Project Area Centerline

Map ID	Site Name and Address	Agency List	Contaminated Media	Contaminant	Depth to Groundwater/ Flow Direction	Cleanup Status
Seattle						
Substantially Contaminated Sites						
56	Eastlake Mixed Use Properties (formerly Barmart Facility and Lakeview Design & Construction) 2833–2851 Eastlake Avenue East	ICR, LUST	Soil, Groundwater	Petroleum, Heavy Oils, Chlorinated Compounds	20-30 ft bgs/ W-NW	Phase II Environmental Site Assessment 12/29/03; entered Voluntary Cleanup Program 1/20/04.
Reasonably Predictable Sites						
61	Wards Cove Packing Co. 88 East Hamlin Street	LUST	Soil	Waste Oil, Petroleum	Groundwater information not in files	Reported cleaned up 2/7/96; facility closed as of 2/03; NFA.
62	National Oceanic and Atmospheric Administration (NOAA) Northwest Fisheries Science Center 2725 Montlake Boulevard	ICR, LUST, RCRIS-SQG	Soil, Groundwater	Heating Oil, Petroleum	4-12 ft bgs/ W-SW	Reported cleaned up 8/11/92; some contaminant remains under basement of lab building; groundwater monitoring continuing.
64	Chevron No. 9 5627 2727 Eastlake Avenue East	LUST	Soil, Groundwater	Petroleum	16-20 ft bgs/ not known	Final cleanup report 11/5/93; facility closed 1/94; NFA.
87	Broadmoor Golf Club 2340 Broadmoor Drive East	LUST, UST	Soil	Petroleum	Not obtained	Reported cleaned up 6/1/95.
89	Peranzi Apartments 2317, 2329 10th Avenue East	LUST, UST	Soil	Petroleum	Groundwater information not in files	Reported cleaned up 2/28/00; NFA.
91	Circle K Station 1461 2350 24th Avenue East	ICR, CSCSL, LUST, UST	Soil, Groundwater	Petroleum Non-halogenated Solvents	Not obtained	Remedial construction completed. Residual contamination remains. Institutional controls required.



Exhibit 9. Substantially Contaminated and Reasonably Predictable Sites within 1/4 Mile of the SR 520 Project Area Centerline

Map ID	Site Name and Address	Agency List	Contaminated Media	Contaminant	Depth to Groundwater/ Flow Direction	Cleanup Status
102*	Lake Union Terrace Project 210 East Blaine Street	ICR, LUST, UST	Soil, Groundwater	Petroleum	Files not available	Interim cleanup report received 10/30/01 (quarterly groundwater monitoring report).
103	Haug Corp. Property	ICR, CSCSL, UST, RCRIS-SQG	Soil, Groundwater, Sediment	Petroleum, Metals, Polynuclear Aromatic Hydrocarbons	Not known	Independent Remedial Action Report received 4/8/96.
107	Eastlake Automotive Inc. (doing business as Scott Sherman Auto) 215 East Garfield	LUST, UST, RCRIS-SQG	Soil	Petroleum, Oil	Groundwater information not up in files	Removed UST 4/94; reported cleaned up 11/20/02.
108*	US Bank 1600 Franklin Avenue	ICR, UST	Soil	Petroleum, Diesel	Files not available	Independent Remedial Action Report received.
110	Lake Union Dry Dock Co. 1515 Fairview Avenue East	CSCSL, ICR, LUST, UST, RCRIS-SQG	Sediment, Surface Water, Air	Petroleum, Non-halogenated Solvents, Halogenated Organics, PCBs, Metals	Not known	Site investigation, interim cleanup report received for LUST 11/90.
110	Charlie's Restaurant 1500 Fairview Avenue East	ICR, LUST, UST	Soil, Groundwater	Petroleum	Not obtained	NFA 10/29/02.
111	Lowe Enterprises (formerly US Bank) 1551, 1552 Eastlake Avenue East	ICR, LUST, CSCSL-NFA	Soil	Petroleum, Diesel	13-14 ft bgs/ Flow direction not in files	Independent Remedial Action Report received 1/28/97; reported cleaned up 9/15/97; NFA.
114	Fred Hutchinson Cancer Center (formerly Fuzzy Wuzzy Rug Co.) 1509 Eastlake Ave East and Fairview Avenue	ICR, CSCSL, UST, RCRIS-LQG, RCRIS-SQG	Soil	Petroleum	Groundwater not detected to depth of 26 ft	Entered Voluntary Cleanup Program 1/99; voluntary cleanup action 8/17/99; NFA.
130	Zymogenetics (formerly Lake Union Steam Plant) 1137, 1179, 1241 Eastlake Avenue	LUST, UST, RCRIS-SQG	Soil, Sediment	Petroleum	Flow to Lake Union	Removed USTs 5/91; independent cleanup report received 1/29/99; NFA.



Exhibit 9. Substantially Contaminated and Reasonably Predictable Sites within 1/4 Mile of the SR 520 Project Area Centerline

Map ID	Site Name and Address	Agency List	Contaminated Media	Contaminant	Depth to Groundwater/ Flow Direction	Cleanup Status
Eastside						
Reasonably Predictable Sites						
66	Texaco No. 63-232-0039 3828 Lake Washington Boulevard	ICR, LUST, UST, RCRA-SQG	Groundwater, Soil	Diesel, Petroleum	8-12 ft bgs/ W	Reported cleaned up 8/01; groundwater monitoring continuing; NFA.
67	Randi Food Services 3645 Bellevue Way Northeast	LUST, UST	Groundwater, Soil	Gasoline	11-12 ft bgs, flow direction not in files	Cleanup started 6/1/95; groundwater monitoring 12/9/96; NFA not on record.
71*	Puget Sound Energy 10220 Northeast Points Drive	LUST	Groundwater, Soil	Mineral oil	Files not available	Cleanup started 8/17/93; groundwater monitoring 6/1/95.
72*	Chem Securities System Inc. 10602 Northeast 38th Place	CSCSL-NFA	Groundwater, Soil	Petroleum	Files not available	Reported cleaned up; NFA dated 12/29/94.
79	STI Optronics 2755 Northup Way	ICR	Soil	Petroleum	Groundwater information not reported	Cleaned up 1/24/94; final cleanup report received 9/2/94; NFA.
85a	WSDOT Bellevue 10833 Northup Way	ICR	Soil	Petroleum	4 ft bgs, flow direction not in files	Cleaned up 1/91; final cleanup report received 4/91; NFA.
85b	WSDOT Northup Maintenance Facility 10833 Northup Way	ICR	Groundwater, Soil	Petroleum	4 ft bgs, flow direction not in files	Latest cleanup report received 4/21/00; 10% of contaminated material still on-site; groundwater monitoring continuing; NFA.
88	STI Optronics 10920 Northup Way	ICR	Groundwater, Soil	Petroleum	Groundwater information not in files	Interim cleanup report received 10/30/01; groundwater monitoring continuing.
104	BP Station No. 5478 2724 84th Avenue Northeast	LUST, UST, RCRA-SQG	Soil	Petroleum	LUST cleanup files not available	Interim cleanup report received 10/20/00; cleaned up 9/03; NFA.



Exhibit 9. Substantially Contaminated and Reasonably Predictable Sites within 1/4 Mile of the SR 520 Project Area Centerline

Map ID	Site Name and Address	Agency List	Contaminated Media	Contaminant	Depth to Groundwater/ Flow Direction	Cleanup Status
112	Bud's Topsoils, Inc. 2633 120th Avenue Northeast	CSCSL-NFA, ICR, LUST, UST	Soil	Cyanide, Metals, Diesel, PCBs	Groundwater information not in files	Final Remedial Action Report received 2/22/93; NFA.
119	Bud's Topsoils, Inc. 1733 127th Avenue Northeast	ICR, UST	Soil, Groundwater	Petroleum	10 ft bgs, flow direction not in files	UST removed 1/13/00; reported cleanup 12/15/00; NFA.
122	Rabanco, Ltd. (also known as Mid Mountain Contractors, formerly the Everett Property) 1600 127th Avenue Northeast	LUST, UST, RCRIS-SQG	Soil	Petroleum	Groundwater information not in files	Interim cleanup report received 12/28/01; tanks removed 6/19/01; some contaminated soil remains onsite.
123	Eagle Hardware & Garden 351 (formerly Vernell's Candy) 11959 Northrup Way	ICR, LUST, UST, RCRIS-LQG	Soil	Cyanide, Metals, Petroleum products	Groundwater information not in files	Interim cleanup report received 1/20/00; reported cleaned up 12/01; NFA.
165	Metro King County DOT East Oper. Base 1975 124th Avenue NE	CSCSL, ICR, LUST, UST, RCRIS-SQG	Soil, Groundwater	Petroleum, Polynuclear Aromatic Hydrocarbons		Interim Remedial Action Report received. Remedial construction completed, residual contamination left onsite. Institutional controls required.

Notes:

Agency List acronyms included in Exhibit 6 and Acronym List on pages v-vi. Cleanup status summary derived from EDR (2002).

(*) = No files at the Ecology Northwest Regional Office

NFA = No Further Action

bgs = below ground surface



Exhibit 10. Reasonably Predictable Sites with Underground Storage Tanks Within 1/4 Mile of SR 520 Project Area Centerline

Map ID	Site Name	Address	Agency List(s)
Seattle			
69	Montlake Texaco	2625 East Montlake Place	UST
70	Residence Eastlake Avenue East	2618 Eastlake Avenue East	UST, ICR
73	Seattle Fire Station 22	901 East Roanoke Street	UST
87	Broadmoor Golf Club	2340 Broadmoor Drive East	UST, ICR, LUST
89	Peranzi Apartments	2317, 2329 10th Avenue East	UST, LUST
91	Circle K No. 1461	2350 24th Avenue East	CSCSL, ICR, LUST, UST
102	Earth Consultants	1800 Eastlake Ave East	UST
102	Lake Union Terrace Project	210 East Blaine Street	UST, ICR, LUST
103	Haug Corp. Property	1801 Fairview Avenue East	UST, CSCSL, ICR, RCRIS-SQG
108	US Bank	1600 Franklin	UST, ICR
110	Lake Union Dry Dock Co.	1515 Fairview Avenue East	UST, CSCSL, ICR, LUST, RCRIS-SQG
110	Charlie's Restaurant	1500 Fairview Avenue East	UST, ICR, LUST
111	Lowe Enterprises	1551 Eastlake Avenue East	UST, CSCSL-NFA, ICR
114	Fred Hutchinson Center Lake Union	1509 Eastlake Avenue East/Fairview Avenue North	UST, CSCSL, ICR, RCRIS-LQG, RCRIS-SQG
120	Chrysler Air	1327 Fairview Avenue East	UST
130	Lake Union Steam Plant	1241 Eastlake Avenue East	UST, LUST
Eastside			
63	Phillips 66 Station No.071366	3813 Northeast Lake Washington Boulevard	UST
65	Residence	9419 Northeast 37th Place	ICR, UST
66	Texaco No. 63-232-0039	Lake Washington Boulevard Northeast	UST, ICR, LUST, RCRIS-SQG



Exhibit 10. Reasonably Predictable Sites with Underground Storage Tanks Within 1/4 Mile of SR 520 Project Area Centerline

Map ID	Site Name	Address	Agency List(s)
67	Randi Food Services	3645 Bellevue Way Northeast	UST, LUST
100	Bellevue City Service Center	2901 115th Avenue Northeast	RCRIS-SQG, UST
104	BP Station No. 5478	2724 84th Avenue Northeast	UST, LUST, RCRIS-SQG
112	Bud's Topsoils, Inc.	2633 120th Avenue Northeast	UST, ICR, LUST
116	Residence 109th Place Northeast	2450 109th Place Northeast	ICR, UST
118	Cedarmark Home Corporation	2426 116th Northeast	UST
119	Bud's Topsoils, Inc.	1755 127th Avenue Northeast	UST, ICR
122	Mid Mountain Contractors, Inc.	1600 127th Avenue Northeast	UST, LUST, RCRIS-SQG
123	Eagle Hardware & Garden 351	11959 Northup Way	UST, ICR, LUST, RCRIS-LQG
165	Metro King County DOT East Oper. Base	1975 124th Avenue Northeast	UST, CSCSL, ICR, LUST, RCRIS-LQG



Reasonably predictable sites in this report include those properties listed in the agency databases as USTs, LUSTs, RCRIS hazardous waste generators, CSCSL NFA sites, CERCLIS NFRAP sites, ICR sites, and CSCSL/HSL sites that have straightforward remedial options. We have included the NFA and NFRAP sites because no further action may apply to a portion of the property (such as removal of one LUST) or the institutional controls in effect after the final cleanup of a site may not be compatible with construction on SR 520. Exhibit 7 shows 87 reasonably predictable sites in the Seattle project area, and Exhibit 8 shows 55 reasonably predictable sites in the Eastside project area. These sites can be listed on more than one environmental agency database, and more than one address may be used if the sites are immediately adjacent to each other.

What are substantially contaminated sites?

Substantially contaminated sites:

- Possess a potential for substantial contamination of environmental media (i.e., soil, groundwater, surface water, sediment).
- Contain contaminants that are persistent or expensive to manage.
- Lack information to predict remedial costs.

Examples of substantially contaminated sites are large bulk petroleum terminals, wood-treating operations, or hazardous waste treatment facilities.

Substantially contaminated sites in this report include CSCSL sites and RCRA CORRACTS that have extensive or persistent contamination. Exhibit 7 shows the two substantially contaminated sites in the Seattle project area. No substantially contaminated properties were identified in the Eastside project area.

What are the results of the Ecology file review?

The hazardous waste discipline team reviewed information about sites identified by the regulatory agency database search to be within a 1/4 mile of the center of the SR 520 right-of-way. This additional information was collected because environmental conditions at sites within 1/4 mile are more likely to result in possible effects to the project area than those located at a greater distance. These sites are reasonably predictable sites, as summarized in Exhibit 9, except for one site. This site, Eastlake mixed-use properties, is located downgradient from the



MTCA Cleanup Levels

Ecology regulations provide three options for establishing contaminated site cleanup levels:

Method A—Cleanup levels that are protective of human health for 25 to 30 of the most common hazardous substances found in soil and groundwater at contaminated sites (WAC 173-340-704). Method A applies to sites that are reasonably predictable and involve only a few contaminants.

Method B—Universal method to establish state cleanup levels that are protective of human health and the environment. Cleanup levels are calculated using risk assessment equations and other requirements specified for soil, groundwater, surface water, or air (WAC 173-340-705). Method B is applicable for reasonably predictable or substantially contaminated sites.

Method C—Similar to Method B, with changes in equations to use risk assessment assumptions appropriate for industrial settings (WAC 173-340-706). Method C cleanup levels are restricted to primarily industrial sites and are limited to soil and air in manholes or utility vaults.

project area. Site file information was reviewed at the Ecology Northwest Regional Office; files were not available for all sites. Each file was reviewed for the following:

- Enforcement action in the last 5 years
- Confirmed or suspected contaminated media
- Confirmed or suspected contaminants
- Depth to groundwater and flow direction
- Cleanup status

A brief description of these sites by project area follows.

Seattle

Exhibit 9 is a list of the sites reviewed at Ecology to assist in further characterization of the extent of confirmed or suspected contamination.

Six sites in the Seattle project area are NFA (No Further Action) sites, which means Ecology has issued a letter stating that the remedial action at the site is complete. These sites are:

- Wards Cove Packing Co. (Map ID 61)
- Chevron No. 9-5627 (Map ID 64)
- Peranzi Apartments (Map ID 89)
- Lowe Enterprises (Map ID 111)
- Fred Hutchinson Cancer Center (Map ID 114)
- Lake Union Steam Plant (Map ID 130)

Wards Cove Packing Co., located at 88 East Hamlin Street and downgradient from the project area (Map ID 61), was closed in 2003. Previous industrial activities at the site included packaging and storage of commercial fishing-related materials, storage of hazardous materials



and petroleum products in drums, storage of gasoline in a UST, scrap metal storage, equipment maintenance, and a machine shop. The site has records of noncompliance with general generator requirements in RCRA/Dangerous Waste regulations. Although an NFA is on record for a LUST, other contamination from past operations also may be present in soil, sediment, or groundwater.

The site listed as Chevron No. 9-5627, located at 2727 Eastlake Avenue (Map ID 64), is a former service station that was closed in 1994. The site is downgradient from the project area. Because petroleum was detected in the soil and groundwater at this site, a cleanup action was completed in 1993. Groundwater occurs at this location to a depth of 10 to 20 feet below grade, so the soil was excavated up to 20 feet below grade. After the soil was removed, the site was sampled to confirm that petroleum concentrations were below the MTCA Method A cleanup levels. An NFA is on record for the site, and no further groundwater cleanup is being done.

Three former heating oil USTs were removed at the Peranzi Apartments, 2329 10th Avenue, in 1995 (Map ID 89). The site is downgradient from the project area. Approximately 60 cubic yards of petroleum-contaminated soils were also removed during the excavation of the USTs. Groundwater effects were not reported in the files reviewed. An NFA is on record.

Lowe Enterprises is the present owner of the property located at 1551 Eastlake Avenue (formerly US Bank) (Map ID 111). This site was the old Seattle Diesel Sales Co. and is listed as a UST site because it contained six USTs onsite. The property is downgradient from the project area. In 1994, one 10,000-gallon heating oil tank was removed, along with approximately 1,120 cubic yards of oil-contaminated soil. Four 10,000-gallon diesel tanks were removed in 1996, along with surrounding diesel-contaminated soils. Groundwater was encountered at 13 to 14 feet below ground surface and was not reported to be affected. The direction of groundwater flow was not determined. Soil samples taken after cleanup were below the MTCA Method A cleanup levels. An NFA is on record. One 10,000-gallon diesel tank remains onsite, which contains fuel for the emergency generator in the US Bank building.

The Fred Hutchinson Cancer Center property located at 1509 Eastlake Avenue East and Fairview Avenue (Map ID 114) was once the Fuzzy Wuzzy Rug Co. The site is downgradient from the project area. The business was primarily a rug cleaning operation, but it also had a



refueling and parking area for its delivery vehicles. As such, the site was listed in the CSCSL, ICR, RCRIS-SQG, UST, and LUST databases. Four onsite USTs contained gasoline, diesel, heating oil, and solvent. In 1992, the solvent and petroleum tanks and contaminated soil surrounding these tanks was excavated. The heating oil tank and additional contaminated soil was removed and three buildings demolished, including the old Fuzzy Wuzzy building, in 1998 prior to construction of the Fred Hutchinson Cancer Center. Soil samples showed contamination was below MTCA Method A cleanup levels. Groundwater was not encountered at depths up to 26.5 feet during excavation activities. Hence, the direction of groundwater flow was not determined. An NFA is on record for this site. Currently, as the Fred Hutchinson Cancer Center, the property is listed as a RCRIS-SQG of hazardous waste due to the types of materials used in the laboratories onsite.

The Lake Union Steam Plant was located at 1241 Eastlake Avenue East (Map ID 130) and was listed on the UST and LUST databases. The site is downgradient from the project area. The site had three underground fuel storage tanks and one 800,000-gallon aboveground storage tank (AST) onsite. In 1990, the property was sold to Zymogenetics for use as a laboratory building. At that time, the soil was determined to be contaminated with oil, diesel, metals, PCBs, and polycyclic aromatic hydrocarbons. An oil sheen was detectable on Lake Union adjacent to the site. In May of 1991 the smoke stacks from the main building, the AST, three USTs, boilers, asbestos-containing materials, and oil-contaminated sediment under the building were removed. Follow-up soil samples revealed that contaminant levels were below MTCA Method A cleanup levels. An NFA is on record for the site.

Sites in the Seattle project area without NFAs are as follows.

The Eastlake Mixed-Use Properties, located on 2833-2851 Eastlake Avenue (Map ID 56), are considered to be substantially contaminated. The properties are downgradient from the project area. Four USTs from the previous land use (a dry cleaning operation and gas station/automobile repair shop) remain buried onsite. The records report that site soils are contaminated with petroleum, heavy oils, chlorinated compounds, and asbestos. The groundwater is reported to be contaminated with volatile organic compounds, which are commonly found in petroleum and dry cleaning solvents. Groundwater occurs at 30 feet below grade, flowing west-northwest. The potential for groundwater contaminant migration is high. This property is currently



enrolled in Ecology's Voluntary Cleanup Program. Remedial action at this site is pending.

Eastlake Automotive Inc., currently known as Scott Sherman Auto, at 215 East Garfield (Map ID 107), is listed as an UST and LUST site. The site is located downgradient from the project area. The site was and is presently an automotive repair shop. A 300-gallon underground waste oil storage tank was located onsite. Previous overfills of the tank led to soil contamination. In 1994, the UST was removed along with its associated piping. One and one-half cubic yards of oil-contaminated soil was also removed from around the tank. Information on groundwater quality was not in the files reviewed. Follow-up soil samples taken in 2001 showed that the contaminant levels were below the MTCA Method A Cleanup levels. No further remedial actions are planned at this time.

The National Marine Fisheries site (now known as the National Oceanic and Atmospheric Administration [NOAA] Northwest Fisheries Science Center site, located at 2725 Montlake Avenue (Map ID 62), is a LUST site located in the project area. Three USTs were removed and petroleum-contaminated soils were excavated. Soil contamination remains onsite under the basement floor in the laboratory building and around the pipeline from a former 10,000-gallon heating oil tank. An oil/water separator was installed to remove oil from water runoff. Groundwater monitoring took place until 1992. More recent information was not found in Ecology records.

No Ecology files were available for review for the Lake Union Terrace Project, located at 210 East Blaine Street (Map ID 102), a UST/LUST and ICR site, and US Bank, located at 1600 Franklin Avenue (Map ID 108), a UST and ICR site. Files were not reviewed for the Haug Corporation property, Broadmoor Golf Club, Circle K Station 1461 on 24th Avenue, Lake Union Dry Dock, and Charlie's Restaurant. These sites are downgradient from the project corridor or in locations unlikely to impact the project.

Lake Washington

No hazardous materials sites were found in agency records reviewed for the Lake Washington project area.

Three sunken vessels are located north of the existing Evergreen Point Bridge. WSDOT hired divers to explore the vessels to determine whether they could create a construction hazard or present



environmental hazards in the form of fuel tanks or machinery or other materials, as well as to find markings that could help determine if the vessels were of historical significance. The vessels all appeared to have been salvaged prior to their sinking. The divers found no machinery, tanks, or other materials that could cause an environmental hazard (CH2M HILL 2003).

Eastside

Nine sites in the Eastside project area were reported as NFA sites in the Ecology files, as follows:

- BP Station No. 5478 (Map ID 104)
- Texaco No. 63-232-0039 (Map ID 66)
- Chem Securities System Inc. (Map ID 72)
- STI Optronics (Map ID 79)
- WSDOT Bellevue (Map ID 85a)
- WSDOT Northup Maintenance Facility (Map ID 85b)
- Bud's Topsoils, Inc. (Map ID 112)
- Bud's Topsoil, Inc. (Map ID 119)
- Eagle Hardware & Garden 351 (Map ID 123)

We reviewed the files listed in Exhibit 5, including the NFA sites, to collect more information about the remedial actions and the nature of possible contamination remaining at the sites. Files were not available for Chem Securities, Inc., a CSCSL-NFA site located at 10602 Northeast Points Drive.

The service station listed as BP Station No. 5478 is located at 2724 84th Avenue Northeast (Map ID 104). The site is located upgradient or crossgradient of the project area. Files available for this property contain UST records for the site and the changes of ownership. Three 12,000-gallon USTs for gasoline were installed at this site in 1990. A 500-gallon waste oil tank was installed in 1990 and closed in 1995. One gasoline UST was replaced in 2003. LUST records or possible past cleanup activities at the site were not available. EDR (2002) indicates that groundwater and soil were affected.

In 1992, soil contamination was found during upgrade construction at the service station listed as Texaco No. 63-232-0039 (Map ID 66), located at 3828 Lake Washington Boulevard Northeast. Twenty cubic yards of petroleum-contaminated soils were removed, and the site was backfilled with clean fill. Groundwater occurs at this location at 8 to 12 feet below grade, flowing west toward Lake Washington Boulevard



Northeast. Results of groundwater monitoring showed concentrations of total petroleum hydrocarbon-gasoline and -diesel; benzene, ethylbenzene, toluene, and xylenes; and lead. These concentrations were below the MTCA Method A cleanup levels, except for the detection of benzene in individual wells, once in June 1993 and once in March 1995. Ecology files did not contain more recent groundwater monitoring data.

STI Optronics at 10920 Northup Way (Map ID 79) is a warehouse facility located in a commercial/office building area and a LUST site. Ecology files reported groundwater and soil contamination, as well as a generator pump, which leaked hydraulic oil onto a concrete slab and the ground at a different STI Optronics property at 2755 Northup Way. The remedial action included removal of the pump and concrete slab, as well as excavation of 8.5 cubic yards of soil below the slab. The excavated soils were disposed offsite and the area was backfilled with clean material and landscaped. Soil samples of the remaining onsite soils were taken to confirm that oil concentrations are below the MTCA Method A cleanup levels.

WSDOT Bellevue and WSDOT Northup Maintenance Facility sites are located at 10833 Northup Way in Bellevue (Map IDs 85a and 85b, respectively). This highway maintenance equipment and material storage area and equipment repair shop was built in 1962. The site was reported to be a former service station. Four USTs were removed in 1991 – two gasoline USTs, one diesel UST, and one waste oil UST. Petroleum-contaminated soils were excavated and sent offsite. Information on groundwater was not provided. A 1998 report states that the facility housed two 3,000-gallon unleaded gasoline USTs, one 3,000-gallon diesel UST, one 8,000-gallon diesel-weight unleaded gasoline UST, one 8,000-gallon diesel-weight gasoline UST, one 1,500-gallon waste oil UST, and a hydraulic lift station. In 1998, an independent remedial action removed the hydraulic lift and oil/water sump. Soils were reported to be contaminated with heavy oil (hydraulic oil) and diesel. An oil sheen was observed in groundwater at 4 feet below grade. Twenty cubic yards of petroleum-contaminated soils were excavated (up to 8 feet below grade). No further excavation could occur without damage to the buildings. The excavation area was backfilled with clean material and concrete slurry, and a concrete slab was poured to cap the area. A followup investigation in 1999 reported no migration of contaminants offsite.



Bud's Topsoils, Inc., located at 2633 120th Avenue (Map ID 112), removed two USTs that were formerly used for storage of diesel and unleaded gasoline. Twenty-four cubic yards of petroleum-contaminated soil were also removed. Two USTs used to store unleaded gasoline and used oil remain in place at this site. Information about groundwater is not available.

Another Bud's Topsoils, Inc. location at 1733 127th Avenue Northeast (Map ID 119) was listed as a UST, LUST, and ICR site. The property housed a 10,000-gallon diesel storage tank used to refuel heavy equipment and trucks. Soil samples detected diesel and oil around the fill port. In 1999, the UST was removed and 300 cubic yards of soil were excavated from the site. Groundwater was encountered at 10 feet below ground surface. The direction of groundwater flow was not determined. Approximately 800 gallons of contaminated groundwater was treated and disposed of offsite. The area was backfilled with clean soil from onsite. Follow-up groundwater samples were below the MTCA Method A cleanup levels. An NFA is on record for the site.

Eagle Hardware & Garden 351 (now Lowe's), located at 11959 Northrup Way (Map ID 123), is reported to be a former candy manufacturing facility that had diesel-fired boilers. In 1992, two 10,000-gallon diesel USTs and associated piping were removed, and 750 cubic yards of petroleum-contaminated soil were removed to a depth of 15 feet below grade. This soil was aerated for 2 months and used to build a parking lot. During confirmation sampling of the soil, contaminant concentrations were reported below the MTCA Method A cleanup levels. Information on groundwater was not located during the file review.

Sites in the Eastside project area without NFAs are as follows.

Randi Food Services, located at 3645 Bellevue Way (Map ID 67), removed a 500-gallon UST in 1999. The site is located within the project footprint. Diesel-contaminated soils (237 tons) were removed and transported offsite for disposal. Groundwater is reported to occur at this location at 11 to 12 feet below grade. Groundwater samples were not collected and the direction of groundwater flow was not determined. No NFA is on record for the site.

The property of Frank E. Everett located at 1600 127th Avenue Northeast (Map ID 122) is currently used by Rabanco, Ltd., as a garbage truck refueling and staging area. Prior to 2001, the site was a gasoline



station. In 2001, four of the five onsite USTs were removed and contaminated soil was detected at the site at that time. No remedial actions are on record for this property. One diesel tank remains onsite for the current operations.

Files were not available for the Puget Sound Energy LUST site located at 10220 Northeast Points Drive. EDR (2002) reports mineral oil contamination of soil and groundwater at this location. The site files for the Metro-King County East Operations Base were not reviewed. The remedial action for petroleum contamination has been completed, but residual contamination remains in place. The location of the site makes it unlikely that the project area could be affected by the residual contamination.

What are the results of the historical record review?

The hazardous materials discipline team reviewed historical records, including Sanborn fire insurance maps and Kroll Atlases from King County public libraries, and historical tax records from the Puget Sound Archives. We also reviewed a report on abandoned landfills in Seattle (Seattle-King County Department of Public Health 1984) to obtain information about historical disposal areas in the Washington Park Arboretum area. Historical Sanborn maps contain information about all recorded businesses and property improvements, including equipment with a potential to release contaminants to the environment (such as fuel storage tanks), but these maps were not available for most of the project area.

We reviewed the 1938 and 1956 Kroll Atlases, which provided a general overview of land development on the SR 520 corridor. We also reviewed the Puget Sound tax records for property tax parcels for the period from 1900 to 1972 to find information about property ownership, addresses, and records of property improvements. Our review of these records, which focused on improvements that could release contaminants to the environment (such as heating oil tanks or hazardous material storage areas), included all of the project area, except for the existing WSDOT right-of-way.

In general, structures built before 1980 may contain hazardous building materials (asbestos-containing materials and lead-based paint), as well as possible PCB-containing oils associated with electrical equipment. The discipline team did not confirm the presence or absence of these materials.



Seattle

The Sanborn maps show mixed residential, commercial, and industrial land uses immediately adjacent to the SR 520 corridor along I-5. Commercial and industrial areas of interest west of the WSDOT right-of-way included autobody repair, acid warehouse, and pottery manufacturing businesses located between Harrison and Mercer Streets in 1968. Additional uses of automobile repair, automobile service station, and aboveground oil tanks were recorded near Fairview Avenue and Eastlake Avenue in 1968.

The Sanborn maps show primarily residential areas adjacent to the SR 520 corridor. Buildings and structures associated with the University of Washington and University of Washington Medical Center are north of SR 520 adjacent to Montlake Boulevard and Northeast Pacific Street. The archive records for this area were in poor condition and barely legible. The historical tax records for parcels in the Montlake area record government lots for the University parcels, Lake Washington shore lands, City of Seattle property for the historical society (MOHAI), and Seattle Yacht Club. Building improvements for the University were not recorded for tax purposes. The historical society museum, built between 1950 and 1961, is recorded as having hot water heat. The fuel source was not recorded but may have been heating oil. The age of the structure is indicative of possible hazardous building materials.

A study of abandoned landfills in Seattle (Seattle-King County Department of Health 1984) identifies historical landfill sites in the Washington Park Arboretum area. Garbage disposal was recorded at various sites within the current park property beginning in 1909 and continuing until 1935 when plans for the Arboretum were completed. Sanitary fill was first placed in the deep ravine north of Madison Street and then continued in the marsh area near Union Bay. Records do not explicitly report what materials were disposed of, but Health Department references infer that the refuse was putrescible, such as food waste, and nonputrescible, such as metal or glass, residential waste. The Seattle-King County Department of Health collected soil gas and surface water samples at Foster Island. Trace methane was reported in the Foster Island samples. The study concluded that, based on the sample findings, the age of the landfill, and the relatively benign wastes, the historical landfills were a low environmental health risk. No further study was recommended by the Department of Health.



Eastside

The 1938 Kroll Atlas records Medina, Hunts Point, Clyde Hill, and Yarrow Point as residential, except for the Hunt's Point Greenhouse. The Puget Sound Archive tax records for the Eastside project area are incomplete. Houses built between 1929 and 1972 are recorded, but improvements after 1972 are not. Records indicate oil heat, typically stored in USTs, for several of the properties. The Puget Sound Archive historical tax records for Kirkland and Bellevue show a mixture of residential and commercial properties and Northern Pacific railroad right-of-way. Residences include structures built from 1890 (no longer present) to 1969. Property improvements are not recorded after 1969 for the parcels identified within the project area. Records show residences had wood stoves and oil heat. Commercial areas of interest include a 3M office and warehouse built on Northup Way in 1969; a Washington state shop and vehicle wash built on Northup Way in 1969; property on Northup Way purchased by Time Oil in 1960 with no improvements recorded; and a gasoline dispensary built on Northup Way in 1931 and torn down in 1954. Records do not include information on material storage or disposal locations. A number of properties are recorded as having oil gravel surface and no other improvements.

What are the results of the visual reconnaissance?

We conducted a windshield reconnaissance survey of the project area neighborhoods, with a particular focus on areas adjacent to the on-ramps and off-ramps along SR 520. Our observations are generally consistent with the records reviewed; observations are discussed below.

Seattle

A Seattle Fire Department station and building used by the Washington State Patrol and WSDOT Incident Response is adjacent to the SR 520 Roanoke exit at 811 Roanoke. Historically, these kinds of facilities provide onsite fueling operations for emergency vehicles (a UST is on record) and other maintenance activities.

The Queen City Yacht Club, located on Boyer Avenue and Portage Bay, is listed in the environmental regulatory agency databases as a RCRA SQG of hazardous wastes. No RCRA violations were identified in the database search (EDR 2002). Activities that may have occurred at this facility could include miscellaneous boat repairs. Historical repair practices may have resulted in releases of contaminants to Portage Bay and Portage Bay sediments.



The service station located at 2625 East Montlake (Map ID 69) was observed to have poor housekeeping practices. In the rear of the facility, drums, tires, and debris were stored outside on stained pavement. Additional inquiry may be necessary to determine possible contamination.

Older Seattle residential properties historically used, and may currently have, heating oil USTs. Owners of residential USTs do not have to register with Ecology. Releases from residential heating oil USTs may contaminate soils and groundwater.

Eastside

One property on Points Drive that appears to have commercial or industrial use, and was not identified during our initial record search, is adjacent to the westbound on-ramp to SR 520 from Lake Washington Boulevard Northeast/Bellevue Way. The property is listed as Randy's Frozen Steaks in the tax assessor data. Follow-up cross-checking with the regulatory agency databases indicates that this property is a LUST/UST site.

The BP Station at 2724 84th Avenue Northeast recorded in the environmental agency databases is now a Circle K/76 service station.

Potential Effects of the Project

What methods were used to evaluate the project's potential effects?

The hazardous materials discipline team evaluated the potential permanent and construction effects of the project from the presence of hazardous materials, hazardous substances, hazardous wastes, or contaminated environmental media. This report considers effects on human health and the environment resulting from the possible release of contaminants or alteration of contaminant migration pathways.

We analyzed the proposed alternatives to determine permanent effects related to:

- Property or right-of-way acquisition and associated environmental liability
- Time frame to remediate possible contaminated sites and the effect on construction costs and schedules



- Human health and the environment from possible long-term cleanup on or adjacent to the alternatives
- Long-term operation and maintenance

We also considered data gaps that will require further investigation, such as an initial site assessment (ISA) or preliminary site investigation (PSI).

We analyzed the proposed alternatives to determine the construction effects based on:

- Release of possible contaminants in soil, sediment, or groundwater to other environmental media, such as air or surface water
- Need to dispose of or treat contaminated media offsite
- Alteration of contaminant migration pathways
- Encountering unknown contamination or USTs
- Demolition of structures with possible hazardous materials
- Hazardous materials or substances used during construction
- Worker and public health and safety
- Regulatory requirements

How would the project permanently affect hazardous material sites?

Seattle

No Build Alternative

The No Build Alternative would not disturb or alter any hazardous material sites, identified contaminated sites, or potentially contaminated sites.

Under the Continued Operation Scenario, increased traffic volumes would affect transportation of hazardous materials in the Seattle project area.

Under the Catastrophic Failure Scenario, failure of the Evergreen Point Bridge would affect the transportation of hazardous materials in the Seattle project area by rerouting traffic onto other roadways around Lake Washington.



4-Lane and 6-Lane Alternatives

The 4-Lane and 6-Lane Alternatives would potentially affect four sites in Seattle (see Exhibit 11). These sites are:

- The Seattle Fire Station 22 UST site on 901 East Roanoke Avenue (Map ID 73)
- Queen City Yacht Club RCRA-SQG (Map ID 76) on Boyer Avenue East
- NOAA Northwest Fisheries Science Center ICR/LUST on Montlake Boulevard (Map ID 62)
- Montlake service station UST at 2625 East Montlake Place (Map ID 69)

There are no records indicating a release of contaminants to the environment at these sites, except at the NOAA Northwest Fisheries Science Center site. Cleanup actions occurred at this site, but an NFA is not on record. If a release has occurred from the USTs or from historical maintenance practices at the yacht club, or if contaminants remain in the subsurface and are detected during construction (as discussed below), there is a potential for longer-term effects that may require mitigation such as monitoring at these sites.

Lake Washington

No Build Alternative

Under the No Build Alternative, the effects would be the same as those described above for the Seattle project area.

4-Lane and 6-Lane Alternatives

The 4-Lane and 6-Lane Alternatives would have no permanent effects in the Lake Washington project area.

Eastside

No Build Alternative

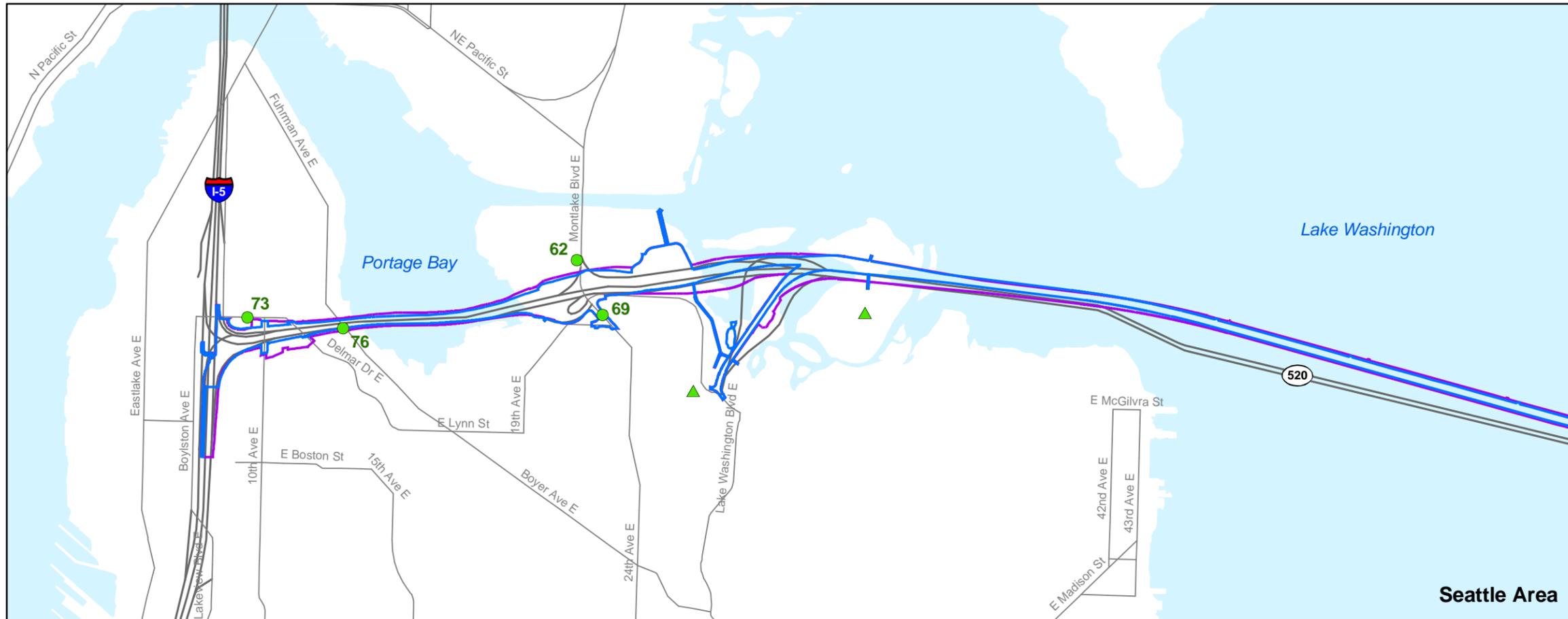
Under the No Build Alternative, the effects would be the same as those described above for the Seattle project area.

4-Lane Alternative

The 4-Lane Alternative may affect five sites on the Eastside (see Exhibit 11). These sites are:

- WSDOT Evergreen Floating Bridge RCRA-SQG (Map ID 99)





- ▲ Landfill
- Affected or Potentially Affected Sites
- 4-Lane Footprint
- 6-Lane Footprint

Note: Site numbers refer to map identification numbers assigned by EDR (2002).

Source: Environmental Data Resources, Inc. (2002)

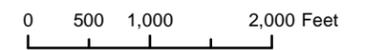
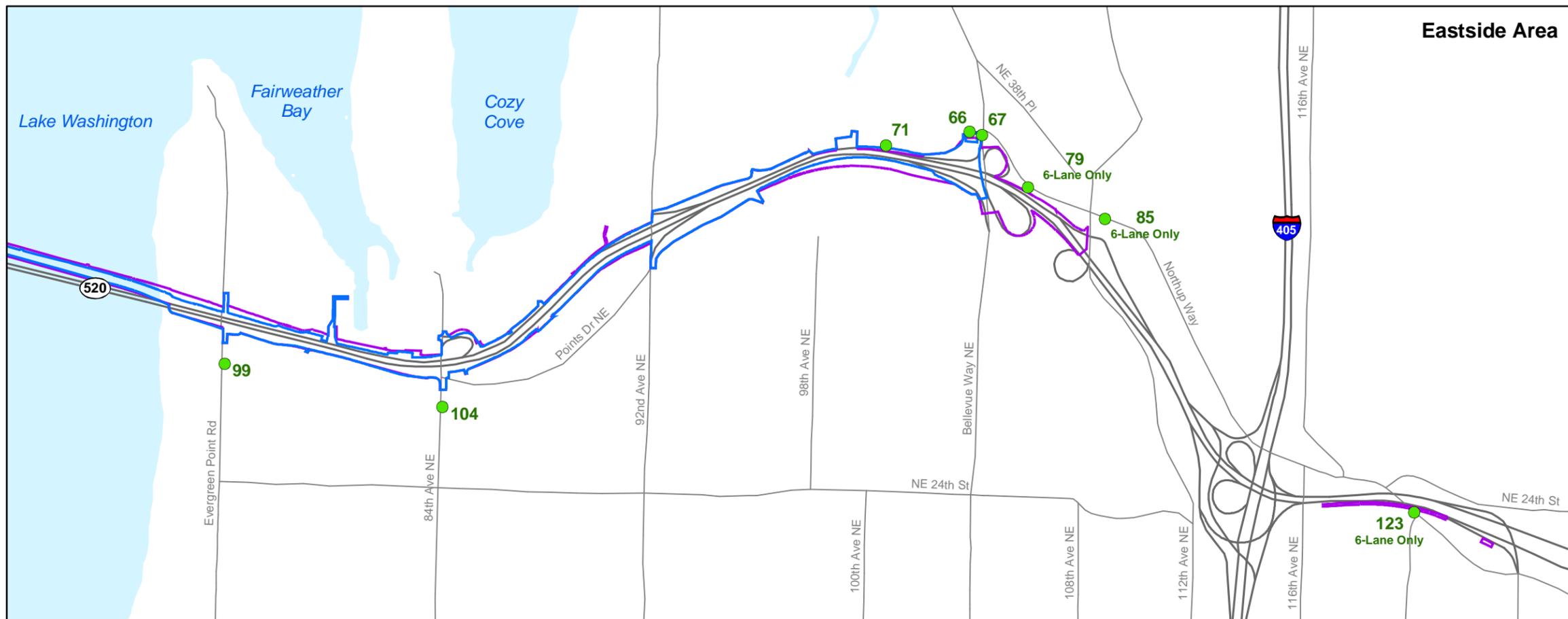


Exhibit 11. Listed Sites Potentially Affected by the 4-Lane and 6-Lane Alternatives
SR 520 Bridge Replacement and HOV Project

- Service station located at 2724 84th Avenue Northeast (Map ID 104) listed as a UST/LUST
- Puget Sound Energy at 10220 Northeast Points Drive (Map ID 71) listed as an ICR site
- Service station located at 3828 Lake Washington Boulevard (Map ID 66) listed as an ICR/LUST site
- Randi's Food Service located at 3645 Bellevue Way Northeast (Map ID 67) listed as LUST/UST site

The WSDOT Evergreen Floating Bridge site (Map ID 99) is mapped south of SR 520, but the address places it as a transportation facility on the Evergreen Point Bridge. No violations are reported, but the 4-Lane Alternative may require relocating this facility. The removal of materials from this location and storage at a new site transfers the possible effects of storage at one location to another.

The service station on 84th Avenue Northeast has been issued an NFA letter by Ecology. Long-term effects are not expected, except in the unlikely event that unknown contaminated soil and/or groundwater were detected during construction of the roadway or stormwater wet pond, which would require long-term treatment or monitoring for mitigation.

Puget Sound Energy is listed because of a release of mineral oil to soil and groundwater. Files were not located at the Ecology Northwest Regional Office, but EDR records refer to a final cleanup report. Long-term effects are not expected at this site.

The service station on Lake Washington Boulevard has been issued an NFA letter by Ecology. Long-term effects are not expected, except in the unlikely event that unknown contaminated soil or groundwater were detected during construction, which would require long-term treatment or monitoring for mitigation.

Randi's Food Service, located on Bellevue Way, has undergone a cleanup to remove a diesel LUST and associated contaminated soils. Shallow groundwater was reported, but not sampled. Ecology records do not indicate that cleanup is complete. A stormwater treatment facility is planned for this location. If the site has not been cleaned up, there could be long-term effects on water quality if contamination remains in place that can come in contact with stormwater.



6-Lane Alternative

The 6-Lane Alternative may affect the same sites identified under the 4-Lane Alternative as well as three additional sites (see Exhibit 11).

These sites are:

- STI Optronics, located at 2755 Northup Way (Map ID 79)
- WSDOT maintenance facility (Map ID 85)
- Eagle Hardware (now Lowe's) at 11959 Northup Way (Map ID 123)

The 6-Lane Alternative would not include the stormwater treatment wet pond in the loop ramp at 84th Avenue Northeast planned for the 4-Lane Alternative, thus eliminating any associated risks.

STI Optronics has been issued an NFA letter by Ecology. Long-term effects from this site are not expected, except in the unlikely event that unknown contaminated soil or groundwater were detected during construction, which would require long-term treatment or monitoring for mitigation.

The WSDOT maintenance facility has completed cleanup and an NFA letter is on record. Long-term effects are not expected, except in the unlikely event that there had been another release at the maintenance facility that was not reported in the records reviewed, which would require long-term treatment or monitoring in the project area.

The Eagle Hardware site has been issued an NFA letter by Ecology. Long-term effects are not expected, except in the unlikely event that unknown contaminated soil or groundwater were detected during construction, which require long-term treatment or monitoring for mitigation.

How would project construction temporarily affect hazardous material sites?

Effects Common to the Project Areas

Construction effects include releases of contaminants to the environment by ground-disturbing or dewatering activities. Potential types of hazardous substance contamination that could be encountered during project construction include primarily petroleum-contaminated soil and groundwater. Other contaminants, such as volatile and semivolatile organic compounds, are associated with petroleum. If contamination was not managed properly in accordance with existing regulations, there could potentially be an effect on human health and ecological receptors. The build alternatives would include limited



demolition of building structures. Hazardous materials such as asbestos, lead-based paint, and PCBs might be present in these structures. Release of these hazardous materials during demolition would have an effect on human health and the environment.

Construction of the project would require excavation and dewatering, particularly during the location of underground utilities. USTs or LUSTS and their associated piping have been identified in the project area; these tanks or associated piping may be encountered during excavation. Unidentified or abandoned tanks may also exist in the project area. If the tanks or piping are disturbed during excavation, hazardous materials or substances could be released, which would have an effect on human health and the environment. Utility trenches can disturb the subsurface where contaminants, if present, could be encountered; these trenches would provide preferential pathways for contaminant migration. Aboveground electrical utilities that may be relocated include PCB-containing transformers. Release of PCBs during the removal of transformers would have an effect on human health and the environment.

Construction of the build alternatives would affect USTs and LUSTs in the project area because of the potential to encounter unidentified or abandoned USTs.

The regulatory database search indicates that there are sites within the project corridor that are undergoing cleanup and do not have NFA determinations from Ecology. Additional sites within 1/4 mile of the project corridor have identified groundwater contamination. During construction, an uncontrolled hazardous substance could be encountered in areas with known contamination, in areas where recorded activities such as hazardous waste generation or fuel storage in USTs have the potential to affect soils or groundwater, or in other areas not identified in the environmental database search. In such a case, the possible environmental effects could include the following:

- Potential release of contaminated air emissions (dust and volatile organic compounds), soil, sediment, surface water, and groundwater during construction
- Potential alteration of contaminated groundwater plume(s) and generation of contaminated water during dewatering activities
- Potential alteration of contaminant migration pathways due to excavation and other construction activities



Another effect common to the construction of the build alternatives would be the accidental release of a hazardous substance during construction. For example, fuels and oils needed for heavy equipment operation and maintenance could be spilled in the project area. This is a hazard common to all construction projects, but particularly acute for construction over water or with stormwater runoff to Lake Washington or other water bodies. Cleaning up material and disposing of it could add more time and costs to construction operations. Large spills of hazardous materials during construction could also require emergency response agency intervention.

The following sections describe hazardous materials sites that are specific to the project areas.

Seattle

4-Lane Alternative

Construction of the 4-Lane Alternative would affect Queen City Yacht Club on Boyer Avenue East (Map ID 76); the service station at 2625 East Montlake Place (Map ID 69); NOAA Northwest Fisheries Science Center at 2725 Montlake Boulevard (Map ID 62); and possibly the Seattle Fire Station #22 at 901 Roanoke (Map ID 73). With the exception of the NOAA site, there are no records available for these sites indicating a release of contaminants to the environment.

Historical boat maintenance practices at the Queen City Yacht Club may have resulted in contaminants being released to Portage Bay and the lake sediments. Removal of the southernmost yacht club dock and construction of bridge columns could release contaminated sediments. The dock may contain hazardous building materials that would affect required construction methods and construction waste disposal. See Appendix K, *Land Use, Relocations, and Economics Discipline Report*, for the yacht club displacement assessment.

Construction of the 4-Lane Alternative would affect the NOAA Northwest Fisheries Science Center site, where petroleum-contaminated soils remain in place below the research laboratory basement. Groundwater at this site, which occurs 4 to 12 feet below the surface, was affected by a LUST release. Groundwater monitoring was conducted until 1992. An NFA letter is not on record for the site. Ground-disturbing activities during construction may encounter petroleum contamination. If this occurs, mitigation would be necessary to manage and dispose of contaminated soil and/or groundwater in



accordance with applicable regulations. Research laboratory buildings at this location may require demolition. These buildings may contain hazardous building materials and chemical storage areas that would affect construction methods and construction waste disposal. Abatement of these materials would need to occur prior to demolition.

The 4-Lane Alternative would affect the service station on Montlake Place, which contains three unleaded gasoline USTs and one waste oil UST. No records exist indicating a release of contaminants to the environment. The service station at this site would be acquired and demolished under the 4-Lane Alternative, which would require removal of the existing USTs. If there has been a release of petroleum hydrocarbons at the service station, cleanup of affected soils and groundwater would be required as discussed below. The structure at this site was built in 1952 according to tax assessor building records. Structures of this age have a likelihood of containing hazardous building materials. Mitigation measures would be necessary to prevent release of such hazardous materials to the environment during demolition.

Construction of the 4-Lane Alternative also has the potential to uncover historical municipal landfills identified in the Washington Park Arboretum area. In the 1980s, environmental sampling and historical research was done to determine the nature of the wastes disposed. Based on the findings of that analysis and the age of the landfills, these abandoned landfills were determined to be a low environmental health risk that did not warrant additional study. The location and extent of these abandoned landfills are not well defined, but may include Foster Island and land adjacent to Lake Washington Boulevard. The waste materials from the landfill would not be suitable base materials and would have to be removed and disposed of at a permitted landfill facility. The age of the materials also indicates that it is unlikely that landfill leachate or landfill gas would affect construction.

6-Lane Alternative

The 6-Lane Alternative would have construction effects similar to those identified for the 4-Lane Alternative.

Lake Washington

Under both the 4-Lane and 6-Lane Alternatives, hazardous materials and petroleum products used during construction would require proper storage, use, and disposal. A spill or release of these materials



into Lake Washington would affect the environment. During removal of the existing floating bridge, there is a potential that hazardous materials present on the bridge structure could be released. Mitigation measures would be required to prevent these effects.

Eastside

4-Lane Alternative

The 4-Lane Alternative in the Eastside project area has the potential to disturb contaminated media during construction. The service station located at 2724 84th Avenue Northeast (Map ID 104) has been issued an NFA letter for a LUST cleanup. However, contaminated soil or groundwater not previously recognized or addressed by the NFA letter could be encountered at this site during construction. If this occurs, mitigation would be required to manage and dispose of contaminated media in accordance with applicable regulations.

The Puget Sound Energy site, located at 10220 Northeast Points Drive (Map ID 71), is listed for a release of mineral oil to soil. Hardcopy files were not available at the Ecology offices, but the EDR electronic records refer to a final cleanup report. An NFA letter is not on record. Because of the limited mobility of mineral oil in soil, it is not expected that remaining contamination, if any, would be encountered. However, if contaminated media were encountered during construction, mitigation would be required to manage and dispose of contamination in accordance with applicable regulations.

The service station located on Lake Washington Boulevard (Map ID 66) has been issued an NFA letter by Ecology for a LUST cleanup. As discussed above, if contaminated soil or groundwater not previously detected or not addressed directly by the NFA letter were found during construction, mitigation would be required to manage and dispose of contamination in accordance with applicable regulations.

The 4-Lane Alternative would construct a stormwater treatment facility at the Randi's Food site located at 3645 Bellevue Way (Map ID 67). Our records search shows that a leaking diesel UST and contaminated soils were removed from this site; shallow groundwater was reported but not sampled. Ecology's records do not indicate that the cleanup is complete. Plans for construction of the stormwater treatment facility do not currently include dewatering, but if it is determined that dewatering is needed, groundwater sampling would be needed. If contaminated groundwater is detected, mitigation would be required to



manage, treat, or dispose of water extracted in accordance with applicable regulations. The structure at this site was built in 1947; because of the age of the structure, hazardous building materials may be present.

6-Lane Alternative

The 6-Lane Alternative would have construction effects similar to those identified for the 4-Lane Alternative, except for the addition of three sites listed in the environmental regulatory agency databases. These sites are STI Optronics, located at 2755 Northup Way (Map ID 79); WSDOT maintenance facility, located at 10833 Northup Way (Map ID 85); and the former Eagle Hardware (now Lowe's), located at 11959 Northup Way (Map ID 123).

Although Ecology has issued an NFA letter for the STI Optronics cleanup, there remains a possibility that contaminated soil or groundwater not previously detected or addressed directly by the NFA letter could be found during construction. Mitigation would be required to manage and dispose of contamination, if found, in accordance with applicable regulations.

The WSDOT maintenance facility has been issued an NFA letter. Because of the activities at this maintenance facility, there is a possibility that another release not reported in the reviewed records may have occurred. Ground-disturbing construction activities adjacent to this site could encounter soil or groundwater contamination.

The Eagle Hardware site has also been issued an NFA letter. If contaminated soil or groundwater not previously detected or addressed directly by the NFA letter were found during construction, mitigation would be required to manage and dispose of contamination in accordance with applicable regulations.

How do the alternatives differ in effects on the hazardous material sites?

The No Build Alternative may affect the transportation of hazardous materials across Lake Washington, but would not result in long-term effects on hazardous material sites. The potential long-term effects of the 4-Lane and 6-Lane Alternatives do not differ substantially.



Mitigation

What has been done to avoid or minimize negative effects?

The 4-Lane and 6-Lane Alternatives have been designed to minimize the need for acquisition of property outside the existing right-of-way. In doing so, the need to disturb soils or other environmental media that have the potential to be contaminated, or to demolish building structures with possible hazardous materials (e.g., asbestos-containing materials), is minimized.

How could the project compensate for unavoidable negative effects?

Mitigation measures can be taken to control, mitigate, or eliminate the potential effects discussed above. Environmental regulations require the following:

- Appropriate management techniques for contaminated media such as soil or groundwater
- Strict control and management of hazardous wastes
- The use of established criteria for transportation of hazardous substances

For the 4-Lane and 6-Lane Alternatives, mitigation measures for identified effects include the following:

- Conduct ISAs of sites to be acquired or located adjacent to the project right-of-way for which insufficient information was available to determine whether or not there is a potential for site contamination. Targeted parcels should include those where stormwater treatment facilities are planned. If available information is insufficient to establish that cleanup is complete or insufficient to prepare a remediation plan and cost estimate, PSIs may be required. Findings should also be used to help manage liability during right-of-way acquisition.
- Locate USTs and fuel lines prior to construction.
- Identify the presence or absence of PCBs in transformers to be removed during relocation of electrical utilities. Identified PCBs would be managed in accordance with applicable regulations.



- If structures are identified for demolition, conduct a building material survey to determine if asbestos-containing materials, lead-based paint, or PCBs are present in structures prior to demolition . An approved contractor should be designated to conduct the hazardous material abatement.
- Phase construction activities in concert with planned cleanup activities to avoid contaminated areas.
- Implement construction techniques that minimize disturbance to the subsurface and prevent the transport of possible contaminants to uncontaminated areas. These techniques should address dewatering activities, site grading and excavation, installation of light standards, stormwater pollution prevention, and spill prevention.
- Prepare a comprehensive contingency and hazardous substance management plan and a worker health and safety plan to minimize the effect of identified and unanticipated hazardous material from contaminated environmental media.
- Prepare a spill prevention, control, and countermeasures plan to help prevent the release of hazardous substances to the environment, in particular for over-water work.
- Prepare a stormwater pollution prevention plan to prevent pollution in stormwater runoff.

Mitigation measures that apply to the project alternatives and areas of the project are addressed in the following sections.

Seattle

Specific mitigation measures for the 4-Lane and 6-Lane Alternatives include additional studies prior to construction for the following:

- Sample sediments to determine if contaminants of concern are present near the Queen City Yacht Club dock. Regulatory cleanup levels are not available for freshwater sediments in Washington, but guidance values are available from Ecology (e.g., *Development of Freshwater Sediment Quality Values for Use in Washington State* [2002]). If sediments are contaminated, cleanup actions may be required. Construction methods to prevent disturbing sediments during dock demolition and pile driving would need to be implemented. Contaminated sediments that may be removed



would require management and disposal in accordance with applicable requirements.

- Acquire additional information from Queen City Yacht Club about the age of dock construction and building materials. A building material survey is needed prior to demolition of any structures.
- Acquire additional information about the NOAA Northwest Fisheries Science Center site. A PSI is recommended if subsurface data gaps remain. A hazardous material survey is recommended for buildings identified for demolition.
- Request site subsurface information from the owner of the service station on Montlake Place prior to acquisition, including information on the locations of USTs and fuel piping, soil and groundwater conditions, and information on structures requiring demolition. A PSI is recommended if the information provided is not complete. Additional mitigation or a remedial action plan for management of contaminated environmental media, if present, would need to be developed. Closure of USTs present at the site would need to follow applicable requirements. A building material survey is needed prior to demolition of structures.
- Examine geotechnical information acquired for design purposes to determine if construction would affect historical landfills.

Lake Washington

Mitigation measures for the 4-Lane and 6-Lane Alternatives include development and implementation of an SPCC plan to prevent a release of hazardous materials or substances to Lake Washington.

Eastside

Specific mitigation measures for the 4-Lane and 6-Lane Alternatives include additional studies prior to construction:

- Implement a contingency and hazardous substance management plan for work in areas near sites that have reported a release of contaminants to the environment, including near sites with NFA letters on record. The management plan should address dewatering activities, if anticipated.
- Request additional information from property owners of the Randi's Food Services site on Bellevue Way Northeast to determine the location or former location of the UST and possible other UST



locations, as well as the possible presence of hazardous building materials. If dewatering is needed, groundwater sampling would be necessary before construction. If contaminated groundwater is detected, mitigation would be required to manage, treat, or dispose of water extracted in accordance with applicable regulations. Possible alteration of contaminant migration pathways during pumping would need to be addressed. A building materials survey is needed prior to demolition of structures.



References

- CH2M HILL. December 2003. *Sunken Vessel Summary Report*. Prepared for Washington State Department of Transportation.
- Ecology. 2002. *Development of Freshwater Sediment Quality Values for Use in Washington State*. Washington State Department of Ecology, Olympia, Washington. September.
- EDR. 2002. *Translake EDR Area/Corridor Study*. Environmental Data Resources (EDR), Inc. May.
- FHWA. 1987. Technical Advisory T6640.8A. Federal Highway Administration.
- FHWA. 1994. *Hazardous Wastes in Highway Rights-of-Way*. Federal Highway Administration.
- FHWA. 1997. *Supplementary Hazardous Waste Guidance*. Federal Highway Administration.
- Kroll Map Company. 1938. *Kroll's Atlas of King County, Washington*.
- Kroll Map Company. 1956. *Kroll's Atlas of King County, Washington*.
- Puget Sound Archives. 1900-1972. Historical tax assessment records for tax parcels within project right-of-way area.
- Sanborn Maps. 1968. *Fire Insurance Maps – Seattle*.
- Sanborn Maps. 1983. Washington Fire Insurance Maps prior to 1950.
- Seattle-King County Department of Public Health. 1984. *Abandoned Landfill Study in the City of Seattle*.
- WSDOT. 2004. *Environmental Procedures Manual*. Section 447. Washington State Department of Transportation.



Attachment 1

Bibliography of Ecology Records Reviewed

Attachment 1

Bibliography of Ecology Records Reviewed

Eastlake Mixed Use Properties (former Barmart Facility)

Settlement Monitoring and Limited Geotechnical Report - 2851 Eastlake Avenue East, Seattle, Washington; Prepared by AGRA Earth and Environmental, Inc.; January 9, 1997.

Subsurface Investigation Commercial Property 2851 Eastlake Avenue East; Seattle, Washington; prepared by Clayton Group Services; February 9, 2000.

Phase I Environmental Site Assessment Vacant Commercial Property 2851 Eastlake Avenue East, Seattle, Washington; prepared by Clayton Group Services; February 9, 2000.

Limited Subsurface Investigation Commercial Property 2851 Eastlake Avenue East, Seattle Washington; prepared by Farallon Consulting; October 20, 2000.

Supplemental Subsurface Investigation Report Former Barmart Facility 2851 Eastlake Avenue East, Seattle, Washington; Prepared by Farallon Consulting; December 6, 2000.

Site Hazard Assessment Former Barmart Facility 2851 Eastlake Avenue East, Seattle Washington; prepared by Farallon Consulting; December 6, 2000.

Summary of Findings, Cleanup Action Scope, and Estimated Cost Barmart Facility 2851 Eastlake Avenue East, Seattle, Washington; prepared by URS Corporation; March 19, 2001.

Phase II Environmental Site Assessment Proposed Eastlake Mixed Use Properties 2833 through 2851 Eastlake Avenue East, Seattle, Washington (submitted to Kenhang Seattle, Inc.); prepared by Zipper Zeman Associates, Inc. ; December 29, 2003.

Wards Cove Packing

Industrial Stormwater General Permit SO3-001247, prepared by Washington State Department of Ecology; effective November 18 2000 - 2005.

Stormwater Pollution Prevention Plan; November 2000

Notice of Dangerous Waste Activities; January 1999

Notice of Dangerous Waste Activities; May 2000

Notice of Closure; November 2003

Northwest National Marine Fisheries Services

Subsurface Petroleum hydrocarbon Evaluation National Marine Fisheries Center, Seattle, Washington; prepared by Rittenhouse-Zeman & Associates, Inc., September 1990.

Tank Removal Site Assessment Report NOAA National Marine Fisheries-Northwest Fisheries Center, Seattle, Washington; prepared by Stone Geotechnical; June 1992.

Chevron Station No. 9-5627

Summary Report Hydrocarbon-Contaminated Soil Remediation 2727 Eastlake Avenue East, Seattle, Washington; prepared by Applied Geotechnology, Inc.; November 5, 1993.

Environmental Site Assessment, Chevron Service Station #60095627, 2727 Eastlake Avenue East, Seattle, Washington; prepared by Converse Consultants NW; November 11, 1992.

Peranzi Apartments

UST Notice of Confirmed Release; Washington State Department of Ecology; May 1995.

Notice of Tank Closure; Washington State Department of Ecology; May 19, 1995.

BP Station No. 5478

Notice of Tank Closure, Washington State Department of Ecology; January 20, 1995

UST Addendum, Department of Licensing; March 3, 2003.

Bud's Topsoil, Inc. (2633 - 120th Ave NE)

Closure of two Underground Storage Tanks Bud's Topsoil, Inc. 2633 - 120th Ave NE Bellevue, Washington; prepared by Earth Consultants, Inc.; February 22, 1993

Texaco No. 63-232-0039

Annual Groundwater Monitoring Report, June, September, and December 1994; prepared by EMCON Northwest, Inc.; March 28, 1995.

Annual Groundwater Monitoring Report, June, September, and December 1995; prepared by EMCON Northwest, Inc.; February 5, 1996.

STI Optronics (2755 Northup Way)

Letter from EMCON Northwest, Inc. to Amoco (former property owner) dated March 9, 1994 concerning remedial activities completed at site during the first quarter of 1994.

WSDOT - Bellevue Propoerty

Notice of Confirmed Release, Washington State Department of Ecology;
April 1991

Notice of Tank Closure, Washington State Department of Ecology; April
19, 1991

WSDOT Northup Maintenance Facility

Hydraulic Lift Removal and Independent Remedial Action Report; prepared
by WSDOT Environmental Services Branch; September 4, 1998.

Early Notice Letter, Washington State Department of Ecology; July 9,
1999

STI Optronics (10920 Northup Way)

Letter from EMCON Northwest, Inc. to Amoco (former property
owner) dated December 1, 1993 regarding soil sampling completed at
the site in November 1993.

Eagle Hardware

Site Assessment for UST Removal/Cleanup Report, prepared by Bison
Environmental NW, Inc.; July 9, 1992

LUST and UST Removal Site Assessment Report, prepared by Bison
Environmental NW, Inc.; September 1992

Randi's Food Services

UST Removal and Soil Remediation Assessment Report, prepared by
Assessment and Remediation Consulting Services, November 28, 1999

Lowe Enterprises/US Bancorp/Eastlake Mixed-Use Properties

*Environmental Site Assessment Report, Eastlake Properties, 1551 Eastlake
Avenue East, Seattle, WA*, prepared by Hazcon, Inc.; February 1995

Phase II Subsurface Investigation, 1551 Eastlake Avenue East, Seattle, WA,
prepared by Dames & Moore; November 1995

*Independent Remedial Action of Soils, US Bancorp Facility, 1551 Eastlake
Avenue East, Seattle, WA*, prepared by Dames & Moore; January 28, 1997

Fuzzy Wuzzy Rug Company/Fred Hutchinson Cancer Research Center

Remedial Action Report, prepared by Environmental Associates, Inc.;
October 27, 1993

Report of Voluntary Cleanup Action Cancer Care Alliance (former Fuzzy Wuzzy Rug Company/PBS Supply) 825 Eastlake Ave, Seattle, WA, prepared by Dames & Moore; August 17, 1999.

Lake Union Steam Plant

Independent Cleanup Action Report, prepared by CH2M HILL, Inc.; April 22, 1992.

Eastlake Automotive

UST Removal Site Assessment Report, prepared by Bison Environmental NW, Inc.; April 1994

Bud's Topsoils (1733 - 124th Ave)

UST Closure Report for Bud's Topsoils, 1733 - 124th Avenue, Seattle, WA, prepared by Earth Consultants, Inc.; January 13, 2000.

Everett Properties

UST Closure and Site Assessment Notice, Washington State Department of Ecology, December 28, 2001

Attachment 2

**Sites with Hazardous Materials, Hazardous
Wastes, or Contaminated Material within 1 Mile of
the SR 520 Project Area**

Attachment 2.

Sites with Hazardous Materials, Hazardous Wastes, or Contaminated Material Within 1 Mile of SR 520 Project Area

Map ID	Site Name	Address	Agency List(s)
Seattle			
28	Power Plant	Jefferson Road & Mason Road	LUST, UST
29	DORT Residence	3925 2nd Avenue NE	ICR
31	Stevens Court	NE Pacific/Brooklyn	LUST
35	University of Washington Campus	15th NE/NE Pacific	ICR, LUST, UST
36	Timmerman Marina	1101 NE Boat Street	ICR, LUST, UST
39	Hospital Emergency Generator	1705 NE Pacific Street	UST
40	Titan Construction Eastlake	3230 Eastlake E	ICR, LUST
41	American Marine Contractors, Inc.	3201 Fairview Ave E	RCRIS-SQG
42	Tetra Tech, Inc.	Boat Street	RCRIS-SQG
43	Ross Laboratories, Inc.	3138 Fairview Ave E	RCRIS-SQG
43	Olympic Yacht Center	3137 Fairview Ave E	RCRIS-SQG
43	Fairview Marine, Inc.	3133 Fairview Ave E	RCRIS-SQG
44	Dunato Boat Yard	2309 N Northlake Way	CSCSL
46	Orowheat Foods Company	1550 N 34th Street	CSCSL
47	Seattle City Engineering Dept.	Eastlake Ave E	RCRIS-SQG
50	Northlake Shipyard Inc.	1441 N Northlake Way	CSCSL, HSL
51	Togiak Fisheries Inc.	N Northlake Way E Side	CSCSL, RCRIS-SQG
52	Metro Lake Union Facility	1602 N Northlake Way	CSCSL
53	Gas Works Park WA Natural Gas	2000 N Northlake Way	CSCSL
54	Seattle City Fairview Residence	Fairview Ave E	RCRIS-SQG
56	Barmart Facility	2851 Eastlake Avenue E	CSCSL, ICR
56	Lakeview Design & Construction	2837 Eastlake Avenue E	CSCSL
57	Seattle Lighting Co.	Northlake Way	Coal Gas Site
61	Wards Cove Packing Co.	88 E Hamlin Street	RCRIS-LQG, RCRIS-SQG
62	National Marine Fisheries - NW	2725 Montlake Blvd	ICR, LUST, RCRIS-SQG
64	Chevron No. 9 5627	2727 Eastlake Avenue E	ICR
64	Ter-Kel Inc.	2727 Eastlake Avenue E	LUST
69	Montlake Texaco	2625 E. Montlake Place	UST
70	Residence Eastlake Ave E	2618 Eastlake Avenue E	ICR, UST
73	Seattle Fire Station 22	901 E Roanoke Street	UST
76	Queen City Yacht club	Boyer Ave E	RCRIS-SQG
82	Seattle Preparatory School	2400 11th Ave E	RCRIS-SQG
84	Residence	3810 N. McGilvra Street	ICR
87	Broadmoor Golf Club	2340 Broadmoor Dr E	ICR, LUST, UST
89	Peranzi Apartments	2317, 2329 10th Avenue E	LUST, UST
90	Larson Property	2301 38th Avenue E	ICR
91	Circle K No. 1461	2350 24th Avenue E	CSCSL, ICR, LUST, UST
93	Giniger Property	1814 E. Lynn	ICR
94	Mobil No. 99-MPB	2200 24th Avenue E	ICR, LUST
97	Worthy Property	2066 McGilvra Blvd. E	ICR
98	Berger & Associates	2021 Minor Avenue N	ICR
102	Earth Consultants	1800 Eastlake Ave E	UST
102	Lake Union Terrace Project	210 E Blaine Street	ICR, LUST, UST
103	Haug Corp Property	1801 Fairview Avenue E	CSCSL, ICR, RCRIS-SQG, UST
106	Bird-Johnson Coolidge Propeller	1608 Fairview Avenue E	CSCSL, ICR, RCRIS-SQG
107	Wilson Hayes, Inc.	1601 Eastlake Ave E	RCRIS-SQG
107	Eastlake Automotive Inc. DBA	215 E Garfield	LUST, RCRIS-SQG, UST
108	U.S. Bank	1600 Franklin	ICR, UST
109	Madison Park Texaco Inc.	4000 E Madison	CSCSL, UST
110	Lake Union Dry Dock Co	1515 Fairview Avenue E	CSCSL, ICR, LUST, RCRIS-SQG, UST
110	Charlies Restaurant	1500 Fairview Avenue E	ICR, LUST, UST
111	Lowe Enterprises	1551 Eastlake Avenue E	CSCSL-NFA, ICR, UST
114	Fred Hutchinson Ctr Lake Union	1509 Eastlake Ave E/Fairview Ave N	CSCSL, ICR, RCRIS-LQG, RCRIS-SQG, UST
120	Chrysler Air	1327 Fairview Avenue E	UST
130	Lake Union Steam Plant	1241 Eastlake Avenue E	LUST, UST
135	Seattle City Light Lake Union	Eastlake Ave E	RCRIS-SQG
135	Zymogenetics, Inc.	1201 Eastlake Ave E	RCRIS-SQG
136	Gunn Building	1165 Eastlake Avenue E	CSCSL, RCRIS-SQG
136	Lake Union Steam Plant	1179 Eastlake Avenue E	CSCSL, ICR
141	Fiberlay Inc.	1158 Fairview Avenue N	CERCLIS-NFRAP
141	Fairview Barrels	1143 Fairview Ave N	RCRIS-SQG
141	Yachtfish Marine	1141 Fairview Ave N	RCRIS-SQG
141	Fred hutchinson Cancer Reserch Center	1100 Fairview Ave N	UST
141	DP Enterprises Inc.	1320 Prospect Street	RCRIS-SQG
153	Ward Street Property	1000 Ward St.	RCRIS-SQG
161	Yale Street Landing	101 Fairview Avenue N	ICR, RCRIS-SQG, UST

Attachment 2.

Sites with Hazardous Materials, Hazardous Wastes, or Contaminated Material Within 1 Mile of SR 520 Project Area

Map ID	Site Name	Address	Agency List(s)
161	L&L Poplar	12611 Northup Way	LUST
162	Residence Broadway Ave E	942 Broadway Avenue E	ICR, UST
166	Chandlers Cove Ltd/Pioneer construction	901 Fairview Ave N	RCRIS-SQG, UST
166	Peoples car Repair	Fairview Ave N	RCRIS-SQG, UST
166	U.S. West Building Construction	900 Fairview Avenue	ICR, LUST, RCRIS-SQG
167	US Naval Reserve Readiness Center	860 Terry Avenue N	CSCSL, LUST, RCRIS-SQG
169	Swedish Hospital Parking Garage	970 Summit Avenue	UST
170	Fred Hutchinson Cancer Research	1300 Aloha Street	ICR, LUST, UST
170	Muzak Building	915 Yale Avenue N	LUST, UST
171	U.S. West	900 Minor	ICR, LUST, UST
172	Fuzzy Wuzzy Rug Company	Eastlake Avenue E	CSCSL-NFA, ICR, UST
172	Fred Hutchinson Cancer Research	815 Eastlake Avenue E	ICR
172	Seattle Mental Health Inst.	815 Eastlake Avenue E	ICR
175	Van De Kamps Dutch Bakery	823 Yale Avenue N	ICR, LUST, UST
175	Macdonald Meat Company	820 Yale Ave N	UST
175	CMX Corporation	1300 Valley St	UST
176	Fred Hutchinson Cancer Research Ctr.	Valley Street	RCRIS-SQG
177	Craftsman Press	1155 Valley Street	CSCSL-NFA, ICR, RCRIS-SQG
178	Fairview Warehouse 070299	900-820 Fairview	LUST
180	Paul Birkland Property	733 Summit Ave E	UST
183	Chevron USA Inc. 90123	915 E Roy Street	ICR, LUST, RCRIS-SQG, UST
183	UNOCAL No. 5474	700 Broadway E	ICR, LUST, UST
185	Auto Service Company	630 Westlake Avenue N	CSCSL
188	Texaco Station No. 63-232-0400	601 Boren Avenue N	ICR, LUST, UST
190	Seattle City Ctr Prop	601-615 Mercer Street	CSCSL
191	Ratelco Headquarters	1260 Mercer Street	ICR, LUST, RCRIS-SQG
191	Bargreen Restaurant Supply	1275 Mercer Street	UST
193	A B C Metal Finishing Inc.	528 Pontius N.	CERCLIS-NFRAP
193	Republican Street Site	1265 Republican Street	ICR, LUST
196	IVARs Commissary	500 Terry Avenue N	CSCSL
196	IVARs Commissary	500 Terry Avenue N	ICR, LUST
197	Potter Associates, Inc.	504 Yale Ave N	RCRIS-SQG
198	Hughes Trust Bldg	1220 Republican	ICR
198	Kerner Scott House	510 Minor Avenue N	ICR
198	Martin Tackle Manufacturing Co.	512 Minor Ave N	RCRIS-SQG
198	Hughes Revocable Intervivos TR	1220 Republican	LUST, RCRIS-SQG
199	Martha Lee Apartments	427 Bellevue Ave E	RCRIS-SQG
200	New Richmond Laundry	420 Pontius Avenue N	ICR
200	Seattle School Dist 1 Sch Supp	1255 Harrison Street	LUST, RCRIS-SQG
200	Tomlinson Inc.	420 Pontius Avenue N	LUST
200	Frontier Geosciences Inc.	Pontius N.	RCRIS-LQG
201	Foreign Auto Rebuild Inc.	421 Eastlake Avenue E	LUST, RCRIS-SQG
202	Basil Lee Property	505 Harrison Street	LUST
203	Mastercraft Metal Finishing Inc.	1175 Harrison Street	CSCSL
204	PEMCO Mutual Insurance Company	325 Eastlake Avenue E	LUST, RCRIS-SQG
205	Winters Formal Wear	300 Broadway Street	ICR, LUST
207	Yale Street Parking Garage	310 Yale Avenue	ICR, LUST
208	Thomas Park Ridge Apts	301 Summit Avenue	ICR
213	Strand Apartments	221 Belmont E	LUST
214	Payless Drug Store	202 Broadway E	LUST
216	Office Emporium, Inc.	1715 E. Olive Way	ICR
217	Seattle Times	John Street	LUST, RCRIS-LQG
Eastside			
32	Yarrow Bay Yacht Sales & Service	Lake Washington Blvd. NE	CSCSL, RCRIS-SQG
63	Phillips 66 Station No.071366	3813 NE Lake Washington Blvd.	UST
65	Residence	9419 NE 37th Place	ICR, UST
66	Texaco No. 63-232-0039	Lake Washington Blvd NE	ICR, LUST, RCRIS-SQG, UST
67	Randi Food Services	3645 Bellevue Way NE	LUST, UST
71	Puget Sound Energy	10220 NE Points Drive	ICR
72	Chem Securities System Inc.	10602 NE 38th Place	CERCLIS-NFRAP, CSCSL-NFA, RCRIS-SQG
75	PACCAR, Inc. Yarrow Bay	10630 NE 38th Place	RCRIS-SQG
77	Construction Market Data, Inc.	NE 37th Circle/Bldg. 7	RCRIS-SQG
79	STI Optronics	2755 Northup Way	ICR
79	Nakanishi Denatl Laboratory	Northup Way	RCRIS-SQG
80	Residence	3440 Evergreen Point Road	ICR
85	WSDOT Bellevue	10833 Northup Way	CSCSL, RCRIS-SQG
85	WSDOT Northup Maintenance Facility	10833 Northup Way	ICR, RCRIS-SQG
86	Hwy 520 Acid Plant Clyde Hill	92nd St Exit W	RCRIS-SQG

Attachment 2.

Sites with Hazardous Materials, Hazardous Wastes, or Contaminated Material Within 1 Mile of SR 520 Project Area

Map ID	Site Name	Address	Agency List(s)
88	STI Optronics	10920 Northup Way	ICR
92	Resources Conservation Company	NE 33rd Place	RCRIS-SQG
96	Bellevue Copy Center	11108 Northup Way	RCRIS-SQG
99	WSDOT Evergreen Floating Bridge	Evergreen Point Road	RCRIS-SQG
100	Bellevue City Service Center	2901 - 115th Ave NE	RCRIS-SQG, UST
100	Bellevue Evidence Location	2901 - 115th Avenue NE	RCRIS-SQG
104	BP Station No. 5478	2724 84th Avenue NE	LUST, RCRIS-SQG, UST
112	Bud's Topsoils, Inc.	2633 120th Avenue NE	ICR, LUST, UST
113	Kiewit Construction Company	Northup Way	RCRIS-SQG
116	Residence 109th Place NE	2450 109th Place NE	ICR, UST
118	Cedarmark Home Corporation	2426 - 116th NE	UST
119	Bud's Topsoils, Inc.	1755 127th Avenue NE	ICR, UST
122	Mid Mountain Contractors, Inc.	1600 127th Avenue NE	LUST, RCRIS-SQG, UST
123	Eagle Hardware & Garden 351	11959 Northup Way	ICR, LUST, RCRIS-LQG, UST
126	Saturn of Bellevue	13815 NE 24th Street	RCRIS-SQG, UST
131	Etter Property	2225 Evergreen Point Road	ICR
132	Trane Part Center of the NW	NE Northup Way, Suite 106	RCRIS-SQG
133	Lease Crutcher Lewis	2335 - 130th Ave NE	RCRIS-SQG
134	Southland Corp. 2306-23559	2353 140th Avenue NE	ICR, LUST, RCRIS-SQG, UST
137	Pine Tree Cleaners	2209 - 140th Avenue NE	FINDS
138	Roberts Trane Warehouse	Northup Way	RCRIS-SQG
138	Roberts Service Company	12121 NE Northup Way S	RCRIS-SQG
139	Smith & Hawken	Northup Way	RCRIS-SQG
142	Strictly BMW Independent Service	2111 - 140th Ave NE	RCRIS-SQG
143	Spectra Lux Corporation	12840 NE 21st Place	UST
144	Spectra Lux Corporation	12840 NE 21st Place	RCRIS-SQG
145	Park Place Limited	13710 Northup Way	RCRIS-SQG
149	ARCO Facility No. 06217/HANI Inc.	12903 NE 20th Street	ICR, LUST, RCRIS-SQG, UST
149	Star Rentals, Inc.	12900 Northup Way	ICR, LUST, RCRIS-SQG, UST
149	Parametrix, Inc.	13020 northup way	RCRIS-SQG
149	TCJ Organo Boranes	13029 Northup Way	RCRIS-SQG
149	Seattle Manufacturing Corporation	Northup Way	RCRIS-SQG
149	Bodyworks Auto Rebuild, Inc.	Northup Way	RCRIS-SQG
150	Bellevue Nissan	13817 NE 20th Street	ICR, LUST, UST
150	GAIS NW Bakeries	13823 NE 20th Street	UST
150	McDonald's of Northup	13841 NE 20th Street	UST
150	Scotts Quality Auto Repair	13910 NE 20th	RCRIS-SQG
150	Chevron No. 92175	13948 NE 20th Street	ICR, LUST, UST
150	Q Lube/Minit Lube No. 1103	14001 NE 20th Street	ICR, LUST, UST
150	Bellevue Kawasaki	14004 NE 20th Street	UST
150	UNOCAL No. 5759/Phillips No. 071792	140th NE/NE 20th Street	ICR, UST
151	Honeywell Inc. Commercial Avionics	1750 - 112th Ave NE, Suite A	RCRIS-SQG
152	Robert's Rent Bldg/L & L Poplar	12611 Northup Way	ICR, UST
154	Integrated Circuits Inc.	13256 Northup Way	RCRIS-SQG
154	Key Data, Inc.	13400 Northup Way	RCRIS-SQG
155	Acura of Bellevue/BNS Enterprises, Inc.	13424 NE 20th Street	RCRIS-SQG, UST
156	AA Rentals of Bellevue	13285 NE 20th Street	UST
157	Star Auto Services, Inc.	13622 NE 20th, Suite H	RCRIS-SQG
157	Precision Tune of Overlake	13421 NE 20th Street	RCRIS-SQG, UST
157	Sunshine Trading Company	13419 NE 20th Street	UST
157	Evans Tire Service Center No. 060	NE 20th Street	RCRIS-SQG
158	BMW of Bellevue	13617 Northup Way NE	RCRIS-SQG
163	Willamette Industries, Inc.	1899 120th Avenue NE	ICR, LUST
165	Metro King County DOT E. Oper. Base	1975 124th Avenue NE	CSCSL, ICR, LUST, RCRIS-LQG, UST
165	VN Graphics, Inc.	2020 - 124th Ave NE	RCRIS-SQG
165	Property	2001 - 124th Ave NE	RCRIS-SQG
173	Bellevue City Fire Station No. 6	1850 132nd Avenue NE	ICR, LUST, UST
181	Cadman Bellevue	1701 130th Avenue NE	CSCSL, ICR
182	Journal American Facility	1705 132nd Avenue NE	ICR
184	Not in EDR Search Tables	116th Avenue NE	
186	King County Metro	1790 124th Avenue NE	ICR
187	Cadman Permix Co Inc.	1605 130th Avenue NE	CSCSL
192	Clarke Johnson Engineers	1418 112th Avenue NE	ICR, LUST, UST
209	Apple Green Center	1024 116th Avenue NE	ICR, LUST
209	Overlake Hospital Medical Center	116th Avenue NE	LUST, RCRIS-SQG
231	Eastside Rental Equipment	NE 8th Street	CSCSL, ICR, RCRIS-SQG
233	Tiki Car Wash	11909 NE 8th Street	CSCSL, ICR, LUST

