Periodic Review
Kimberly Clark Riverside Wood Mill

3700 Railway Avenue, Everett, WA 98201
Facility Site ID: 75811416, Cleanup Site ID: 557

Toxics Cleanup Program, Northwest Region

Washington State Department of Ecology
Shoreline, Washington

January 2024

Document Information

This document is available on the Department of Ecology's Kimberly Clark Riverside Wood Mill cleanup site page.[1]

Related Information

- Facility Site ID: 75811416
- Cleanup Site ID: 557

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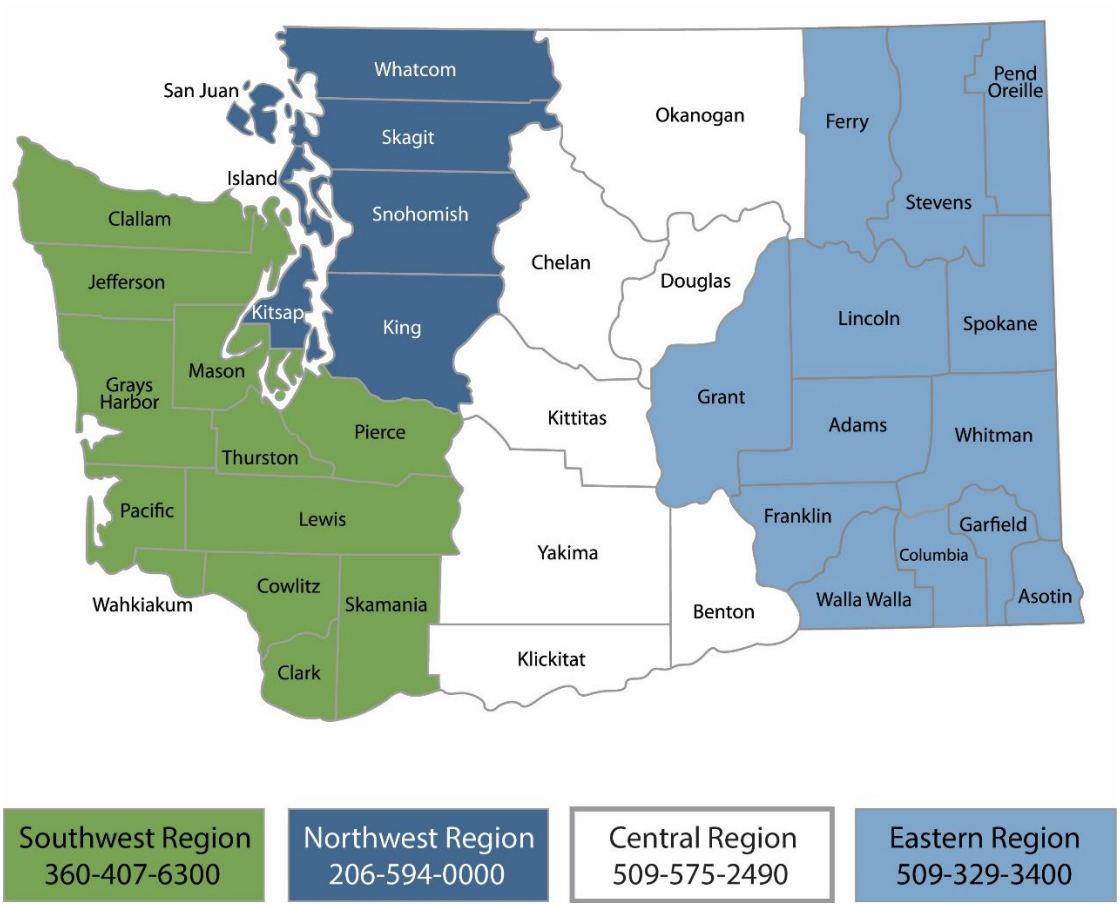
[1] https://apps.ecology.wa.gov/cleanupsearch/site/557
[2] https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Toxics-Cleanup
[3] https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility

Department of Ecology's Regional Offices

Map of Counties Served



Southwest Region 360-407-6300	Northwest Region 206-594-0000	Central Region 509-575-2490	Eastern Region 509-329-3400

Region	Counties served	Mailing Address	Phone
Southwest	Clallam, Clark, Cowlitz, Grays Harbor, Jefferson, Mason, Lewis, Pacific, Pierce, Skamania, Thurston, Wahkiakum	PO Box 47775 Olympia, WA 98504	360-407-6300
Northwest	Island, King, Kitsap, San Juan, Skagit, Snohomish, Whatcom	PO Box 330316 Shoreline, WA 98133	206-594-0000
Central	Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan, Yakima	1250 W Alder St Union Gap, WA 98903	509-575-2490
Eastern	Adams, Asotin, Columbia, Ferry, Franklin, Garfield, Grant, Lincoln, Pend Oreille, Spokane, Stevens, Walla Walla, Whitman	4601 N Monroe Spokane, WA 99205	509-329-3400
Headquarters	Across Washington	PO Box 46700 Olympia, WA 98504	360-407-6000

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Introduction

The Washington State Department of Ecology (Ecology) reviewed post-cleanup site conditions and monitoring data to ensure human health and the environment are being protected at the Kimberly Clark Riverside Wood Mill cleanup site (Riverside Wood Mill; Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC).

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP Project No. NW1729). Residual concentrations of carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and oil-range total petroleum hydrocarbons (TPH-O) that exceeded MTCA cleanup levels remain in soil on the property. The MTCA cleanup levels for soil and groundwater are established under WAC 173-340-740[4] and WAC 173-340-720,[5] respectively.

Ecology determined institutional controls in the form of an environmental covenant would be required as part of the cleanup action for the Site. WAC 173-340-420(2)[6] requires Ecology to conduct a periodic review of certain sites every five years. For this Site, a periodic review is required because Ecology issued a No Further Action (NFA) opinion and institutional controls were required as part of the cleanup action.

When evaluating whether human health and the environment are being protected, Ecology must consider the following factors (WAC 173-340-420(4)):

a) The effectiveness of ongoing or completed cleanup actions, including the effectiveness of engineered controls and institutional controls in limiting exposure to hazardous substances remaining at the site

b) New scientific information for individual hazardous substances or mixtures present at the site

c) New applicable state and federal laws for hazardous substances present at the site

d) Current and projected site and resource uses

e) The availability and practicability of more permanent remedies

f) The availability of improved analytical techniques to evaluate compliance with cleanup levels

[4] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740
[5] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-720
[6] https://app.leg.wa.gov/wac/default.aspx?cite=173-340-420

Summary of Site Conditions

Site description and history

The Site is located at 3700 Railway Avenue in Everett, Washington. It consists of Snohomish County tax parcels numbers 2905210020100 (the northern parcel, addressed 2320 Railway Avenue) and 00480100200901 (the middle parcel, addressed 2410 Railway Avenue), and a small portion of the northwest corner of tax parcel 00480100200102 (the southern parcel, addressed 3821 26th Place). These parcels are referred to herein as the Property (see current Snohomish County parcel map in Appendix B). The Property was historically referred to as Lots 3 and 5 (see historical Site maps in Appendices C and D).

Historical documents and aerial photographs indicate that the area around the Property was developed with a sawmill by the early 1940s. A railway spur extending to the sawmill area was also present by this time. The Property is part of a 101-acre area owned by Kimberly-Clark Worldwide Inc., which was historically used as a sawmill.

The Property remained undeveloped until the 1960s when a chip mill was constructed to the north. From the late 1960s through the 1990s, the Property was used for storage of untreated logs. The Property was used for storage of wood chips and hog fuel (woodchipper waste which includes wood, bark, sawdust, and soil) from the 1990s until 2012. In 2018, approximately 3 acres in the southern portion of parcel 00480100200901 (the middle parcel) was conveyed to the south-adjacent Canyon Lumber facility (parcel 004801002000102, the southern parcel).

The Property remained vacant from 2012 until 2018, when Interwest Construction, a general contractor and construction company, leased the northern parcel (tax parcel 2905210020100). The parcel was developed as a storage yard. Use of the parcel includes storage of construction vehicles and materials, and a scale house. The southern half of the parcel is covered with asphalt pavement, and the rest is surfaced with crushed concrete and asphalt.

The middle parcel was redeveloped in 2021 as a truck and van rental facility. The majority of the parcel is covered by buildings and impermeable surfaces. During redevelopment, approximately 4 feet of imported fill was placed on both the northern and middle parcels.

The properties adjacent to the Site are as follows;

- Canyon Lumber, a lumberyard, is located to the south.
- A gravel storage area operated by the City of Everett to the north and east.
- A railroad to the west, with single-family residences on a bluff beyond.

A vicinity map is available in Appendix A, a current tax parcel map in Appendix B, a historical map of the Site and adjacent properties in Appendix C, and a historical Site plan in Appendix D.

The geology of the area around the Site consists of alluvial deposits from the Snohomish River Valley. Soils observed in borings at the Site consisted of approximately 2 feet of fill soils including sandy gravel and sands from material dredged from the Snohomish River. Fill soils are

underlain by sands with varying amounts of silt, gravel, and organics to the maximum exploration depth of 16.5 feet below ground surface (bgs).

Two monitoring wells were installed at the Site during investigations. Groundwater at the Site is present from 6 to 10 feet bgs. Groundwater flow is directed east, toward the Snohomish River, as determined from monitoring wells on the Site and on adjacent sites.

Snohomish River is located approximately 1,300 feet from the Site. The Site is located within a 114-acre point bar that forms the west bank of the Snohomish River.

Site investigations

Phase I Environmental Site Assessment (2005): A Phase I Environmental Site Assessment (ESA) was conducted for the entire Kimberly Clark Worldwide Facility area to identify potential sources of contamination at the Site and adjacent sites (area shown in Appendix C). The Phase I ESA included review of historical records, aerial photography, and interviews with current and former personnel from the City of Everett and Kimberly Clark.

A total of 14 "recognized environmental conditions" were identified in the Phase I ESA at the Kimberly Clark Riverside Wood Mill Site, 11 as surficial petroleum staining which were not subsequently observed during the Phase II ESA investigation (described below).

Other potential sources of contamination identified in this Phase I ESA are as follows:

- Scrap wood, metal, and tires disposed in a drainage swale on the western side of the Property;
- Railroad tie chipping area;
- Truck dumper with a 2,000 square foot sheen observed in the vicinity;
- Petroleum releases associated with overfilling near a 10,000-gallon diesel aboveground storage tank (AST) and fuel pump; and
- A sump in the scalehouse area.

Phase II Environmental Site Assessment and Cleanup Report (2006): A Phase II ESA was conducted for the Property to evaluate the recognized environmental conditions identified in the Phase I ESA. The Phase II ESA and Cleanup Report was conducted for the Property, but references data collected across the entire former Kimberly Clark facility. A total of two groundwater monitoring wells (MW-1 and MW-4) and 19 soil sampling locations were advanced on the Property in locations where potential sources of contamination were noted in the Phase I ESA. The following locations contained contamination above the applicable Method A cleanup level for unrestricted use (see Site Plan in Appendix D):

- *Western drainage swale* – four surface soil samples were collected from the drainage swale along the western edge of the Property on the west side of the access road (SS-36 to SS-39). Soil samples collected from 0-1 feet bgs at SS-36 and SS-38 contained TPH-O

above the Method A cleanup level at concentrations of 4,000 and 3,400 milligrams per kilogram (mg/kg), respectively.

- *Creosote wood chipping area* – creosote-treated wood chipped for use as hog fuel in the chip mill was stored in the central eastern portion of the Property. Wood waste in this area was a maximum of 10 feet thick. Soil samples were collected from three test pits advanced within the hog fuel pile (TP-12 to TP-14). Soil samples were collected from 0-1 feet bgs from the eastern and western extents of the wood pile (SS-33 and SS-34). Surface soil samples SS-33 and SS-34 contained total carcinogenic polycyclic aromatic hydrocarbons (cPAHs) above the Method A cleanup level for unrestricted use, but below the Method A cleanup level for industrial use (using toxicity equivalency factor calculations).
- *Truck tipper* – a surface soil sample was collected from the truck tipper area where a release of hydraulic oil had been noted in the Phase I ESA. The soil sample (SS-11) was collected from 0-1 feet bgs and contained TPH-O significantly above the Method A cleanup level. No other contaminants were detected above their respective Method A cleanup levels. The release appeared to be confined to surface soils. The cleanup action for this area is described below.
- *Diesel release near AST/fuel pump* – a soil sample collected from MW-1 at 2-3 feet bgs contained TPH-O above the Method A cleanup level. Groundwater samples collected from the permanent monitoring well installed in this boring did not contain TPH-O above laboratory reporting limits.
- *Railroad Spur* – five surface soil samples were collected from the former railroad spur area in the central portion of the Property (RL-SS-1 to RL-SS-3, SS-08, and SS-13). All five samples contained total cPAHs above the Method A cleanup level for unrestricted use (using toxicity equivalency factor calculations). Samples SS-08 and SS-13 contained total cPAHs above the Method A cleanup level for industrial use.

Cleanup actions

A remedial excavation was conducted in the area of the truck tipper in 2006 to remove soils contaminated with TPH-O above the Method A cleanup level. The truck tipper was previously located in the central portion of the northern parcel (in the vicinity of soil sample SS-11, shown on the Site plan in Appendix D). A total of approximately 83 tons of soils impacted with TPH-O were removed from the Site and transported to a permitted facility for disposal. Soil samples collected from the extents of the excavation did not contain TPH-O above the Method A cleanup level.

Soils contaminated with TPH-O and/or cPAHs in the western swale, creosote wood chipping area, AST/fuel pump, and railroad spur areas were left in place. Groundwater samples collected from MW-1 indicated that TPH-O contamination in the AST/fuel pump area was not impacting groundwater.

The concentrations of cPAHs fell below the Method A cleanup levels for industrial use at the Property, with the exception of SS-08 and SS-13 in the railroad spur area. The use of industrial cleanup levels requires the use of institutional controls.

To protect contamination at the Property from disturbance, an environmental covenant was recorded with Snohomish County on August 26, 2008. The covenant places restrictions on use of the Property as described below. Ecology issued a No Further Action (NFA) opinion letter for the Site on September 4, 2008.

Cleanup standards

Cleanup standards include cleanup levels, the location where these cleanup levels must be met (point of compliance), and any other regulatory requirements that apply to the Site. A cleanup level is the maximum acceptable concentration of a constituent of concern to which human or ecological receptors could be exposed. A point of compliance is the location at which cleanup levels must be met. Cleanup levels were established for this Site based on its location in an area zoned for industrial use, and institutional controls prohibiting disturbance of contamination and non-industrial use of the Site.

Soil cleanup levels were established using Method A and Method C standards for industrial use. Due to inferred lack of impacts of cPAHs and TPH-O to groundwater at the Site, Method C cleanup levels protective of the direct contact pathway from the surface to 15 feet bgs were used at the Site.

Environmental Covenant

Ecology determined that institutional controls would be required as part of the cleanup action to document the remaining contamination, protect the cleanup action, and protect human health and the environment. On August 26, 2008, institutional controls in the form of an Environmental Covenant[7] were recorded for the Site.

The Covenant recorded for the Site imposes the following limitations:

1. The Property shall be used only for industrial uses, as described in RCW 70.105D.020(23) and defined in and allowed under the City of Everett's zoning regulations codified in the City of Everett Municipal Code as of the date of this Covenant.

2. Any activity on the Property that may interfere with the integrity of the Remedial Action and continued protection of human health and the environment is prohibited.

3. Any activity on the Property that may result in a new release or exposure, or the exacerbation of an existing release or exposure, to the environment of a hazardous substance that remains on the Property as part of the Remedial Action, or create a new

[7]https://apps.ecology.wa.gov/cleanupsearch/document/82941

exposure pathway, is prohibited without prior written approval from Ecology. Industrial development of the property that results in the release or exposure to the environment of cPAHs in soil below applicable cleanup levels is not considered a prohibited activity provided that: (1) the terms of this Covenant are met; and (2) best management practices are implemented to ensure the prevention of off-Property migration of the contamination. Such best management practices include, but are not limited to, applicable measures to protect workers during construction and dust suppression measures.

4. The Owner of the Property must give thirty (30) days advance written notice to Ecology of the Owner's intent covey any interest in the Property. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for any required continued monitoring, operation, and maintenance of the Remedial Action.

5. The Owner must restrict leases to uses and activities consistent with the Covenant and notify all lessees of the restrictions on the Property.

6. The Owner must notify and obtain approval from Ecology prior to any use of the Property that is inconsistent with the terms of this Covenant. Ecology may approve any inconsistent use only after public notice and comment.

7. The Owner shall allow authorized representatives of Ecology the right to enter the Property at reasonable times for the purpose of evaluating the Remedial Action; to take samples, to inspect remedial actions conducted at the Property, to determine compliance with this Covenant, and to inspect records that are related to the Remedial Action.

8. The Owner of this Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit the use of the Property or be of any further force or effect. However, such an instrument may be recorded only if Ecology, after public notice and opportunity for comment, concurs.

Periodic Review

Effectiveness of completed cleanup actions

Ecology conducted Site visits on March 30 and April 13, 2023. The Site is currently operating as a truck rental facility and storage yard for a general contractor. An access road and vegetated drainage swale runs along the western property boundary. Residences are located to the west, across a railroad track, and uphill of the Property. A photo log is in Appendix E.

Ingestion and direct contact exposure pathway

The cleanup actions were intended to reduce exposure to contaminated soil at the Site. Exposure pathways to contaminated soils by ingestion and direct contact were reduced by the designation of the Property for industrial use and restriction of access by the public. The current configuration of the Site includes asphalt pavement and buildings on the middle parcel (truck rental facility) and pavement on the southern half of the northern parcel (general contractor's storage yard). As part of redevelopment, imported fill was placed on both parcels to add an additional 4 feet onto the existing grade. Access is intended to be restricted by fencing and gates.

However, access to the western drainage swale area can be gained along the western margin of the Site via an access road that is publicly accessible. Evidence of dumping of furniture and household trash was observed on the western side of the Site. The access and use restrictions for the west side of the Site appear to be in need of maintenance. The gate which controls access to the access road on the western side of the northern and middle parcels should be repaired and kept closed to effectively limit public access.

The western draining swale area (where contaminated soil was left in place) is located on the west side of the access road. Access to the western drainage swale area from the residences to the west appears to be unlikely. The residences are located uphill of the Property on top of a steep, vegetated bluff, on the west side of the active rail line located to the west of the Property.

Protection of groundwater

Soils with TPH and cPAHs at concentrations exceeding MTCA Method A cleanup levels remain at the Site.

Concentrations of TPH in the western swale area exceeded the Method A cleanup levels for industrial use. The justification for leaving soils with concentrations of contaminants above the cleanup level in place was that groundwater samples collected from monitoring well MW-1, located approximately 125 feet east, and inferred to be downgradient of SS-36, did not contain TPH above the Method A cleanup levels for unrestricted use.

Two soil samples in the railroad spur area (SS-08 and SS-13) contained cPAHs above the Method A cleanup level for industrial use. The use of the Method C cleanup level for the direct contact pathway soil was justified in the cleanup report based on the chemical properties of cPAHs. According to the characterization and cleanup report, a groundwater sample was collected from a monitoring well installed at a parcel located to the east of the Site. The monitoring well was located adjacent to an area where soils contaminated with cPAHs above the Method A cleanup level for industrial use were present. The groundwater sample collected from the monitoring well did not contain cPAHs above the laboratory reporting limit.

Based on the affinity of cPAHs to sorb to organic material in soils and their relative insolubility in groundwater, the inference that Method C cleanup levels are protective of groundwater was made for soils in the railroad spur area.

Institutional controls

Institutional controls in the form of an Environmental Covenant were implemented at the Property in 2008. The Covenant remains active and discoverable through the Snohomish County Records Office. A boundary line adjustment was recorded in 2018. The boundary line adjustment ceded approximately 3 acres on the southern portion of the middle parcel (2410 Railway Ave) to the south-adjacent property. Sampling data included in the 2006 Phase II ESA do not indicate that contamination is present in this part of the middle parcel.

The Covenant does not include a diagram of the location of contamination remaining above cleanup levels on the Site. Current approximate parcel boundary information available through the Snohomish County Assessor's website show different parcel boundaries than were displayed in the original characterization and cleanup report due to the 2018 boundary line adjustment (shown on the parcel map in Appendix B). The extent of the Site includes the vegetated drainage swale and access road west of the developed portions of the parcels.

The Covenant does not mention TPH-O as a residual contaminant in soil (only cPAHs in soil are mentioned). However, the protections provided by the Covenant are adequate to include TPH-O as a soil contaminant.

This Covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup action and prohibits any use of the Property that is inconsistent with the Covenant, unless approved by Ecology in advance. This Covenant ensures the long-term integrity of the cleanup action will be protected.

Adjacent Properties

The soil contamination in the western drainage swale area at the western Property boundary was never fully characterized. However, any potential Site impacts to the west-adjacent BNSF railroad property would be difficult to distinguish from potential impacts from the railroad itself. Additionally, if there were impacts from the Site, it is unlikely that a covenant could be recorded for the BNSF property.

It is unlikely that Site contaminants migrated to the residences to the west based on their location on a steep, densely vegetated slope approximately 60 feet above the Site. Therefore, the remedy appears to be protective of the adjacent residences.

New scientific information for individual hazardous substances or mixtures present at the Site

There is no new relevant scientific information for the hazardous substances remaining at the Site.

New applicable state and federal laws for hazardous substances present at the Site

There are no new applicable or relevant state or federal laws for hazardous substances remaining at the Site.

Current and projected site and resource uses

The Site is used for industrial purposes. There have been no changes in current or projected future Site or resource uses. The current Site use is not likely to have a negative impact on the protectiveness of the cleanup action.

Availability and practicability of more permanent remedies

The remedy implemented included containing hazardous substances, and it continues to be protective of human health and the environment. While more permanent remedies may be available, they may not be practicable at this Site.

Availability of improved analytical techniques to evaluate compliance with cleanup levels

The analytical methods used at the time of the cleanup action were capable of detection below the selected MTCA cleanup levels. The presence of improved analytical techniques would not affect decisions or recommendations made for the Site.

Conclusions

- The cleanup actions completed at the Site appear to be protective of human health and the environment overall. However, due to a damaged gate, access along the western access road and drainage swale (that runs along the western property boundary, adjacent to the BNSF railroad tracks) is no longer restricted, in accordance with the requirements of the Covenant. The access gate for the western access road needs to be repaired and kept closed to effectively limit public access to this part of Site (due to the presence of residual contaminated soils).
- Soil cleanup levels have not been met at the Site; however, the cleanup action is determined to comply with cleanup standards under WAC 173-340-740(6)(f), since the long-term integrity of the containment system is ensured and the requirements for containment technologies have been met.
- The Covenant for the property is in place and is effective in protecting human health and the environment from exposure to hazardous substances and the integrity of the cleanup action. The Covenant does not mention TPH-O as a residual contaminant in soil (only cPAHs are mentioned); however, the protections provided by the Covenant are adequate to include TPH-O as a soil contaminant.

No additional cleanup actions are required by the property owner at this time, aside from the access gate repairs noted above. The property owner is responsible for continuing to inspect the Site to ensure the integrity of the remedy is maintained.

Next review

Ecology will schedule the next review for the Site 5 years from the date of this periodic review. If additional cleanup actions or institutional controls are required, the next periodic review will be scheduled 5 years after those activities are completed.

References

Aspect Consulting, LLC. *Phase 2 Environmental Site Assessment and Cleanup Report, Riverside Woodyard.* December 11, 2006.

Delta Environmental Consultants, Inc. *Phase I Environmental Site Assessment, Kimberly-Clark Worldwide, Inc., Riverside Woodyard, Everett, Washington*. December 28, 2005.

Ecology. *Environmental Covenant. August 26, 2008.*

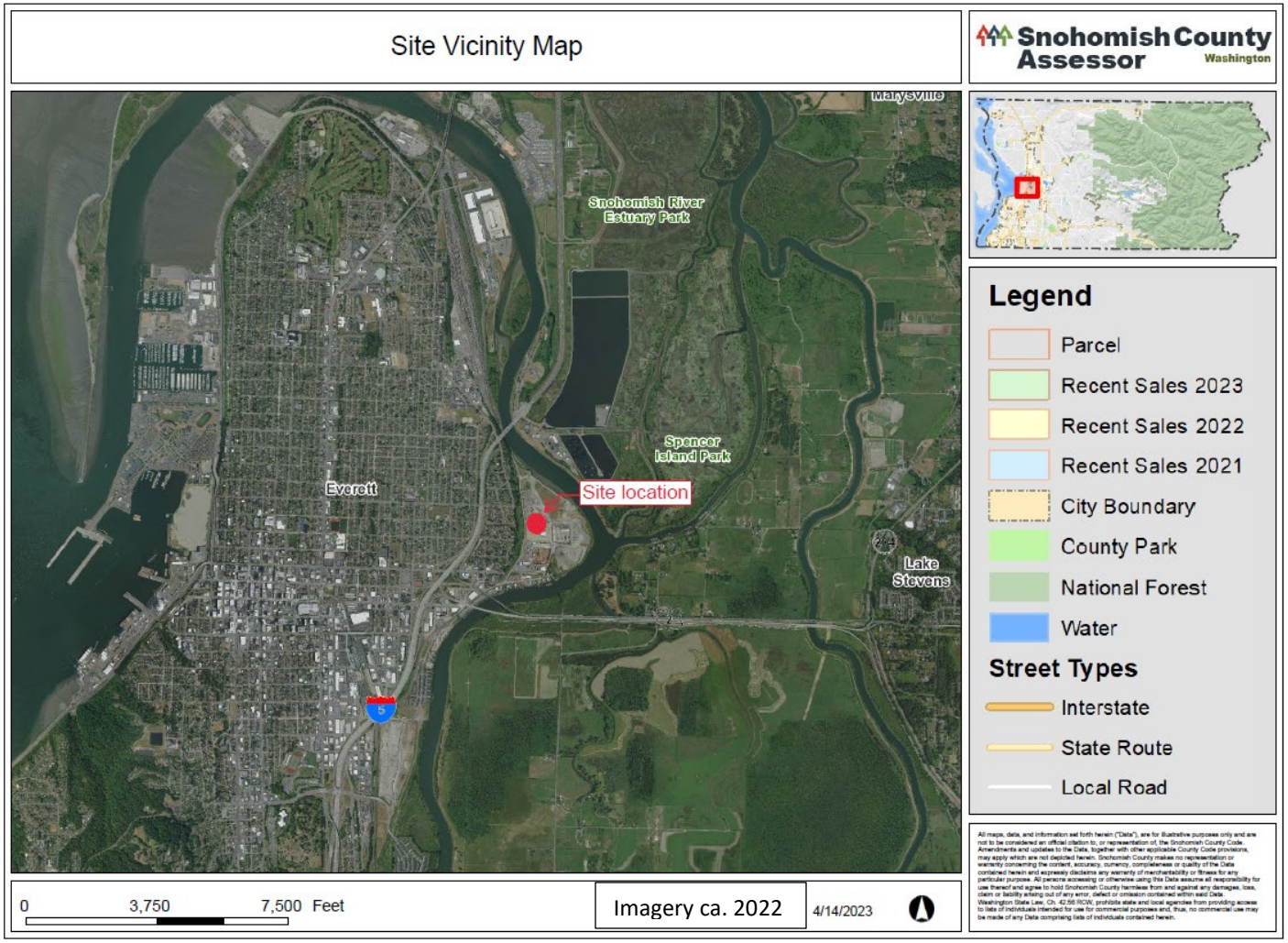
Ecology. *Re: No Further action Determination under WAC 173-340-515(5) for the following Hazardous Waste Site: Riverside Wood Yard, 3700 Railway Avenue, Everett, WA*. September 4, 2008.

Ecology. Site Visit. March 30, 2023.

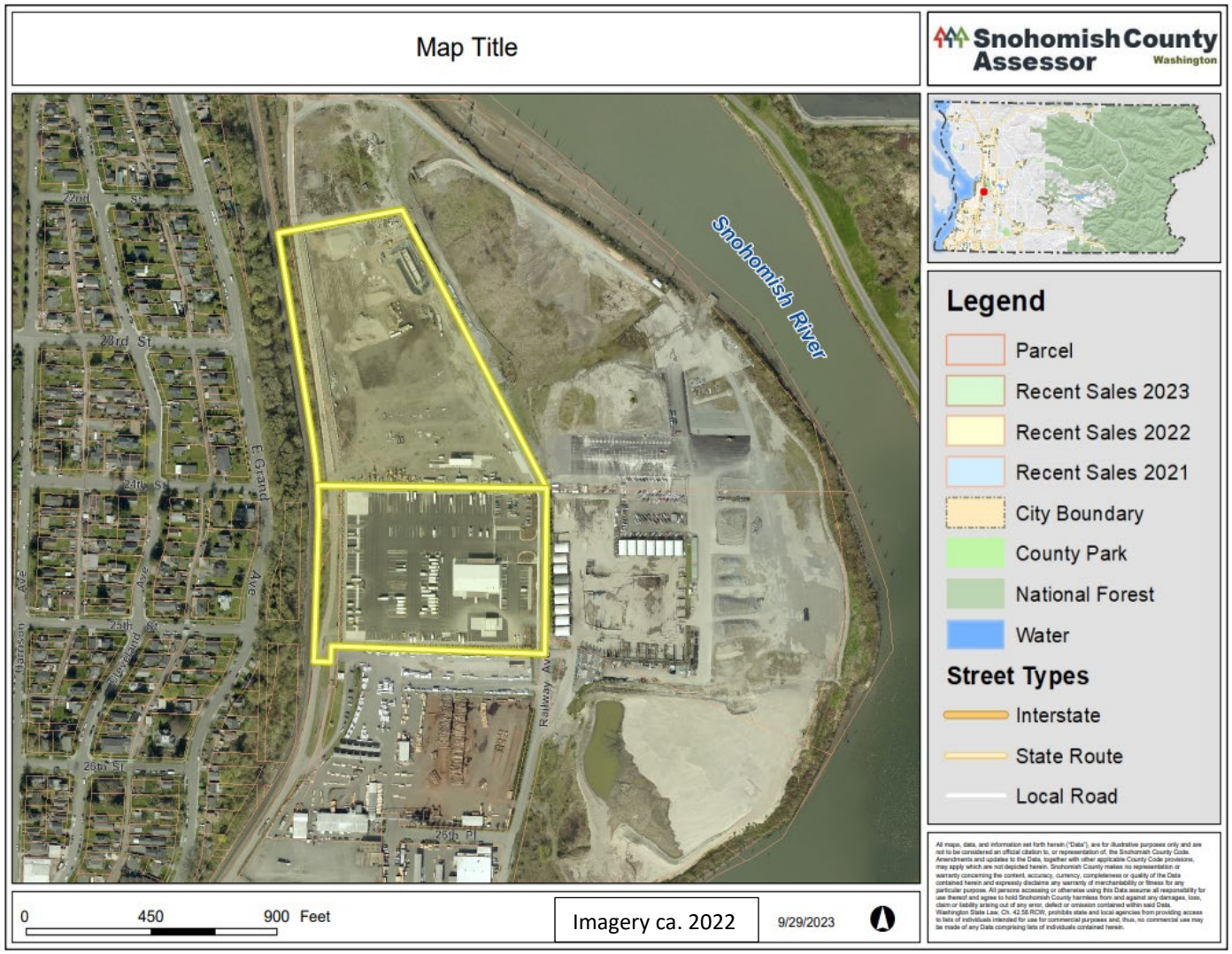
Ecology. Site Visit. April 13, 2023.

Snohomish County. Undated. *Snohomish County Online Property Information (SCOPI) Interactive Web Map.*

Appendix A. Vicinity Map

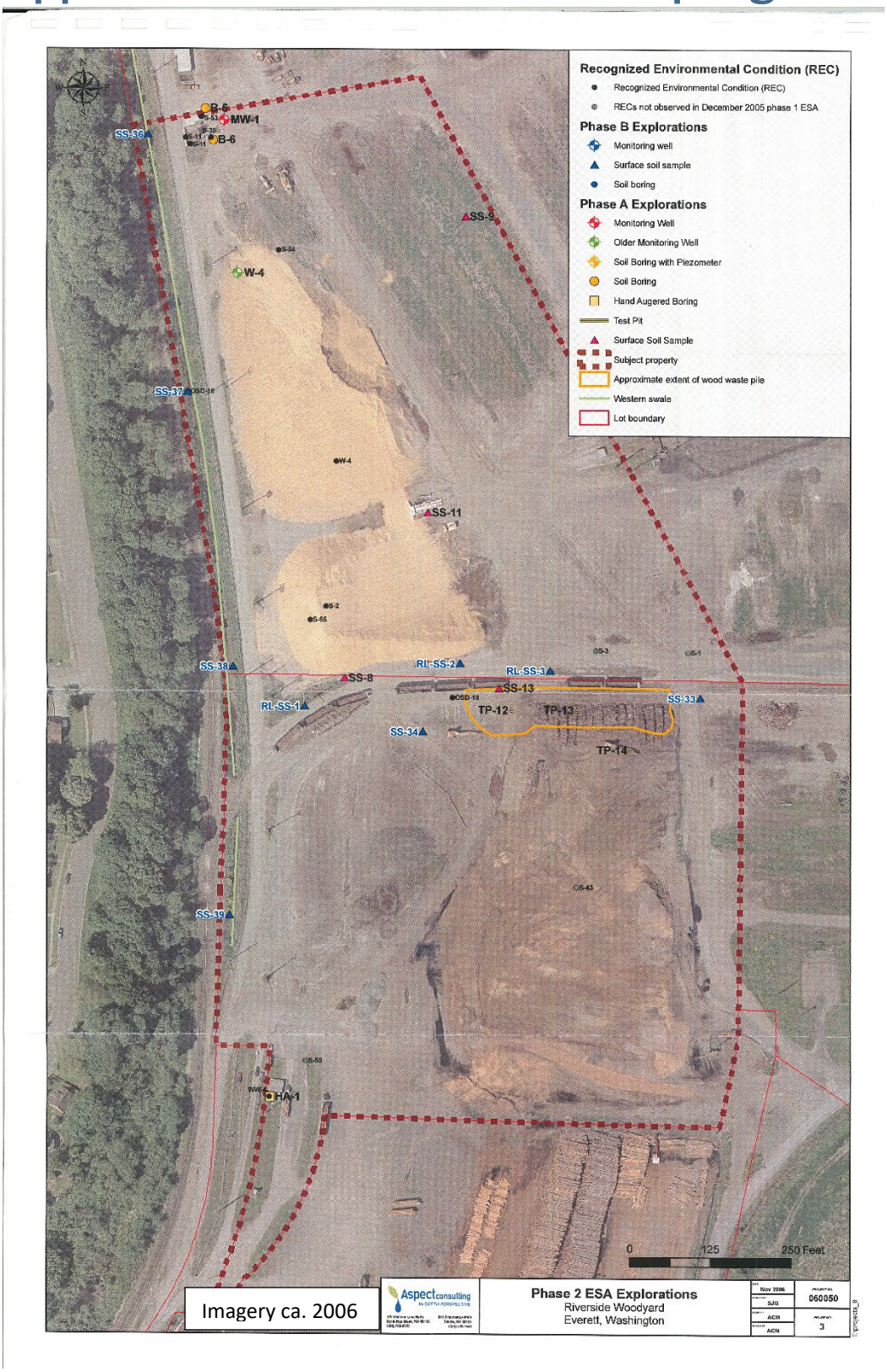


Appendix B. Parcel Map



Appendix C. Site and Adjacent Properties Map

Appendix D. Site Plan with Sampling Locations



Appendix E. Photo Log

Photo 1: View to the northwest from the entrance to 2320 Railroad Avenue (contractor's storage yard). Pavement ends after the trucks in the background.

Photo 2: View to the west of the northwestern corner of the 2320 Railway Avenue Parcel. Crushed concrete and asphalt used for surfacing in the northern half of the parcel is visible in the foreground.

Photo 3: Western drainage swale area on the western side of the Site. Active BNSF tracks are visible in the background.

Photo 4: Current configuration of 2410 Railway Avenue (truck rental facility). Facing south near eastern boundary of parcel.

Photo 5: Looking west along the northern property boundary of the 2410 Railway Avenue Parcel. A shallow swale approximately 20 feet wide is present between 2410 and 2320 Railway Avenue.

Photo 6: Looking northeast from the western side of the 2410 Railway Avenue Parcel showing additional 4 feet of grade above former surface. Former railroad spur crossing western access road in foreground.

Photo 7: Western access road with the adjacent BNSF railroad tracks, steep vegetated slope, and residences beyond, looking northwest from the western boundary of the Site.

Photo 8: The gate for the western access road needs to be repaired and kept closed to effectively limit public access to the western portion of Site.