



Third Periodic Review Weyerhaeuser Everett West

**101 East Marine View Drive, Everett, Washington
Facility Site ID: 10, Cleanup Site ID: 2902**

Toxics Cleanup Program, Northwest Region

Washington State Department of Ecology
Shoreline, Washington

June 2025

Document Information

This document is available on the Department of Ecology's [Weyerhaeuser Everett West cleanup site page](#).¹

Related Information

- Facility Site ID: 10
- Cleanup Site ID: 2902

Contact Information

Toxics Cleanup Program

Northwest Region Office
15700 Dayton Ave N
Shoreline, WA, 98133

Sandra Matthews, Cleanup Site Manager
Email: smat461@ecy.wa.gov
Phone: 425-223-1999

Tamara Welty, Periodic Reviewer
Email: tawe461@ecy.wa.gov
Phone: 425-256-1449

Website: [Washington State Department of Ecology](#)²

ADA Accessibility

The Department of Ecology is committed to providing people with disabilities access to information and services by meeting or exceeding the requirements of the Americans with Disabilities Act (ADA), Section 504 and 508 of the Rehabilitation Act, and Washington State Policy #188.

To request an ADA accommodation, contact the Ecology ADA Coordinator by phone at 360-407-6831 or email at ecyadacoordinator@ecy.wa.gov. For Washington Relay Service or TTY call 711 or 877-833-6341. Visit [Ecology's website](#)³ for more information.

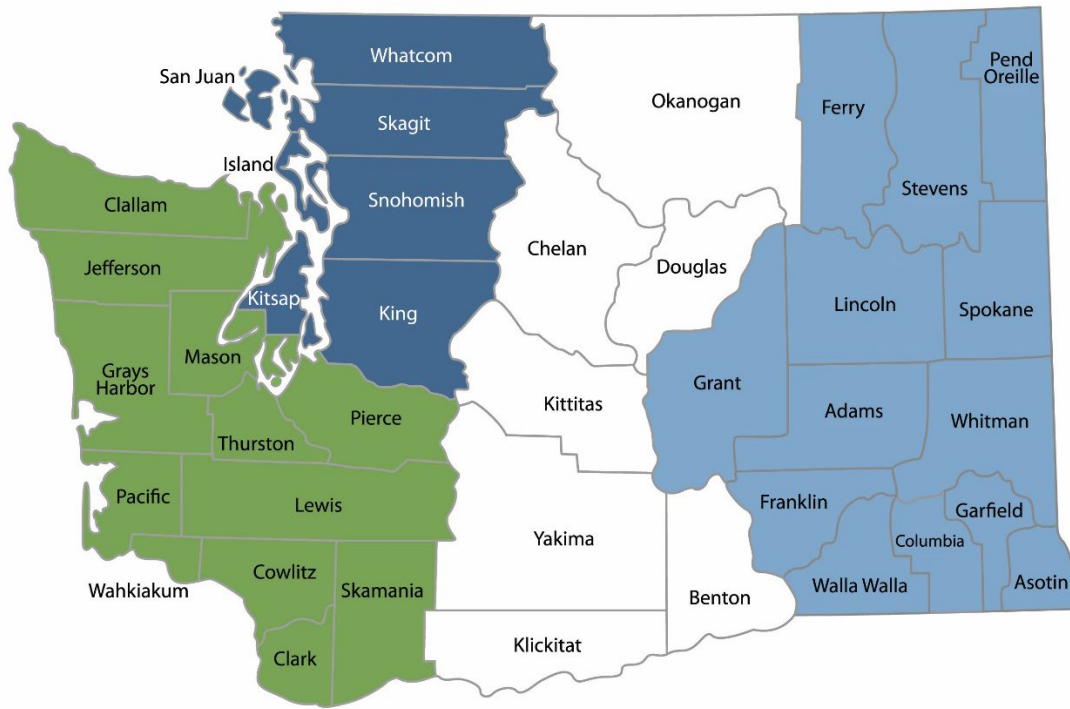
¹ <https://apps.ecology.wa.gov/cleanupsearch/site/2902>

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

Table of Contents

Introduction.....	1
Summary of Site Conditions.....	2
Site description and history	2
Site investigations	4
Cleanup standards	5
Cleanup action levels	6
Cleanup actions	6
Groundwater monitoring.....	7
Restrictive Covenant.....	8
Removal from the Hazardous Sites List	9
Periodic Review	9
Effectiveness of completed cleanup actions	9
New scientific information for individual hazardous substances or mixtures present at the Site	11
New applicable state and federal laws for hazardous substances present at the Site.....	11
Current and projected Site and resource uses	12
Availability and practicability of more permanent remedies	13
Availability of improved analytical techniques to evaluate compliance with cleanup levels.....	13
Conclusions.....	13
Next steps	14
Next review	14
Appendix A. Vicinity Maps	15
Appendix B. Site Plans	18
Appendix C. Photo Log.....	20

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 Weyerhaeuser West cleanup site (Site, also referred to as the West Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). This is the third periodic review conducted for this Site. Ecology completed the first and second periodic reviews in August 2009 and July 2014.

Cleanup activities at this Site were completed under Consent Decree No. 94 2 07559 2. Residual concentrations of arsenic that exceeded groundwater cleanup levels and total petroleum hydrocarbons (TPH) that exceeded soil cleanup levels remain on the property. Polychlorinated biphenyl compounds (PCBs) and mercury may also remain on the property at concentrations greater than soil cleanup levels beneath the water table and/or in areas where excavations were impeded by structural footings. The MTCA cleanup levels for soil and groundwater are established under WAC 173-340-740⁴ and WAC 173-340-720,⁵ respectively.

Ecology determined institutional controls in the form of a restrictive 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 the cleanup activities were completed under a consent decree 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>

Ecology will publish a notice of this periodic review in the *Site Register* and provide an opportunity for public comment.

Summary of Site Conditions

Site description and history

The Site is located at 101 East Marine View Drive, Everett, Washington. The Site includes Snohomish County tax parcel numbers 29050800101900, 29050800102000, and 29050800102100. The current owner of these parcels is Shadow Development LLC according to Snohomish County Assessor records.

The Site consists of approximately 35 acres located on the western portion of the former Weyerhaeuser Everett property and is referred to as Weyerhaeuser West or the West Site. Weyerhaeuser Everett East (Facility Site ID 11) and Weyerhaeuser Everett Mill E (Facility Site ID 12) are separate sites. The West Site is relatively flat and is bordered on the north by the Snohomish River and on the east, west, and south by the Burlington Northern Railroad tracks.

Weyerhaeuser Company (Weyerhaeuser) and Ecology entered a Consent Decree, which outlined the actions necessary to remediate the Site, on October 21, 1994⁷.

Weyerhaeuser began operations in Everett in 1902. Weyerhaeuser West consists of the former Mill C, Mill D, and the Kraft Pulp Mill. The former Mill C, which manufactured wood boards, began operation in 1926 and closed in 1976. The Kraft Pulp Mill operations began in 1953 and closed in 1992. The former Mill D, which manufactured wood boards, began operation in 1963 and closed in 1971. Mills C and D are demolished. Wood waste landfills, aeration lagoons, and log sorting operations, which supported the West Site, are located north of the Site across the Snohomish River on Smith Island.

Known historical land uses near the Site include:

- A lead smelter and ore refinery operated by the Puget Sound Reduction Company and, subsequently, the American Smelting and Refining Company (ASARCO) from approximately 1893 to 1914 on the property immediately southeast of the West Site, near what is now the intersection of East Marine View Drive and State Route 529. The Puget Sound Reduction Company built and operated the smelter to refine the ore for lead, copper, gold, and silver. ASARCO bought the smelter in 1903. The lead smelter operated until 1907. An arsenic processing plant also operated at the smelter from approximately 1898 until 1913. The smelter and processing plant were dismantled in 1914.

⁷ <https://apps.ecology.wa.gov/cleanupsearch/document/156>

- Burlington Northern Railroad currently operates and maintains a railroad right-of-way immediately south and east of the West Site.
- There is a residential area located west of the Site and south of Marine View Drive at an elevation about 75 feet above and 1/8 mile south of the Weyerhaeuser West Site and is separated from the Site by the heavily used Burlington Northern Railroad right-of-way.

Weyerhaeuser West was divided into eight separate units, designated as Areas 11 through 18. These area designations were developed from previous investigations and were used for purposes of investigation and remediation, based on the location of former structures and past areas of activity. The following are brief summaries of the West Site Areas 11 through 18:

- Area 11 Sandblast Fill - Area 11 contained the cement foundations used to support a hog fuel burner, a former transformer, and an abandoned clarifier associated with Mill C. A fill area is also present along the eastern half of Area 11. The fill consists of soils, debris, and sandblast grit. The western boundary of area 11 is adjacent to Area 12.
- Area 12 Former Mill C - Mill C previously operated in this area as a lumber mill facility where logs were processed and cut into lumber. The area contained a structural sand/gravel fill, parking area, and adjacent areas of debris/fill including wood waste, buried dock pilings, and subdrains.
- Area 13 Powerhouse, Recovery and Causticizing - Area 13 was used for power generation and recovery, causticizing and sandblasting, and activities associated with the Kraft Mill. The area included the lime kiln and kiln trunions, the powerhouse, the portable compressor area, the main exhaust stack base, and a caustic lime pile. Two recovery boilers and the main stack were located adjacent to the powerhouse. A sandblast shed was located north of the powerhouse where equipment was sandblasted.
- Area 14 Northern Chip Storage - This area was created by sinking two wood barges onto a tidal flat and filling them with river sediment and wood chips.
- Area 15 Fuel Storage Tanks - Area 15 consisted of a bermed yard containing one 577,500-gallon Bunker C aboveground tank (AST). A former 1,000-gallon diesel AST was also located within the containment area.
- Area 16 Pulp Mill - Area 16 contained the Kraft pulp mill, warehouse, machine room, offices, maintenance building, chip silos, pulp processing storage tanks, bleach plant, and a lube-oil storage shed. Pulping operations, including storage of chips and paper products, occurred in this area. The lube oil shed was used for storage of petroleum products and solvents. Drums were also stored next to the storage shed.
- Area 17 Warehouse and Filter Plant - Area 17 contained a warehouse, the water filter plant, a bank of non-PCB-containing transformers, one underground gasoline storage tank (UST), and a former sandblast shed. The water filter plant processed incoming water for use in the pulping process. Sandblasting of equipment was done in the sandblast shed.

- Area 18 Former White Liquor Storage - White liquor was stored in temporary tanks as part of a short-term research and development project.

In June 2016, a large structure fire occurred at a compost recycling facility on the property, leading to the destruction of three buildings⁸. The buildings were located within Area 17 (described above).

Vicinity maps are in Appendix A, and Site plans are in Appendix B. A figure showing the locations of each cleanup area is also included with the Photo Log in Appendix C.

Site investigations

Total petroleum hydrocarbons (TPH) in the oil (TPH-O) and diesel (TPH-D) ranges were the primary contaminant of concern on the Site, but there were also arsenic, chromium, mercury, and polychlorinated biphenyls (PCBs) in some areas. A relatively small volume of soil containing these other contaminants exceeded Method A Industrial Soil Cleanup Levels. These areas are shown in the figure in Appendix B.

The following areas were identified where soil had been impacted by past operating practices⁹:

- Diesel and oil-range petroleum hydrocarbons were detected in samples collected from the upper 3 feet of soil within the Bunker C fuel tank containment berm in Area 15.
- Oil-range petroleum hydrocarbons and low concentrations of two volatile organic compounds were detected in samples collected from the upper 4 feet of soil adjacent to the lube-oil storage shack in Area 16.
- Oil-range petroleum hydrocarbons, PCBs, and chromium were detected in surface samples collected from the sand blast fill in Area 11.
- Oil-range petroleum hydrocarbons were detected in samples collected from various depths (6 feet maximum) in the vicinity of former Mill C in Area 12.
- Oil-range petroleum hydrocarbons were detected in samples collected from soil underlying 2 to 6 feet of wood chips in Area 14. Soil samples were collected from the upper 2 feet of soil. Mercury was detected at 4.0 milligram per kilogram (mg/kg) in one soil sample collected in Area 14.
- Oil-range petroleum hydrocarbons were detected in samples collected from soil beneath the concrete bases of three rotary lime kiln trunnions in Area 13.
- Total lead was detected at 1,000 mg/kg in one surface grab soil sample collected in the vicinity of the former sand blast shed in Area 17.

⁸ <https://myeverettnews.com/2016/06/04/3-alarm-fire-destroys-everett-recycling-center/>

⁹ <https://apps.ecology.wa.gov/cleanupsearch/document/7984>

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.

[WAC 173-340-704](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704)¹⁰ states MTCA Method A may be used to establish cleanup levels at sites that have few hazardous substances, are undergoing a routine cleanup action, and where numerical standards are available for all indicator hazardous substances in the media for which the Method A cleanup level is being used. Method B may be used at any site and is the most common method for setting cleanup levels when sites are contaminated with substances not listed under Method A. Method C cleanup levels may be used to set soil and air cleanup levels at industrial sites.

MTCA Method A cleanup levels for industrial land use were determined to be appropriate for soil contaminants at this Site, and Method A cleanup levels for unrestricted use were selected for groundwater. Method A was selected because cleanup actions conducted at the Site were determined to be routine, few hazardous substances were found at the Site, and numerical standards were available for each hazardous substance.

The point of compliance is the area where the cleanup levels must be attained. For soil cleanup levels based on the protection of groundwater, as they are for this Site, the point of compliance is established as all soils throughout the Site (standard point of compliance). The Site has a conditional point of compliance for groundwater, which was established at the property boundary.

Table 1. Cleanup levels for soil and groundwater contaminants

Contaminant	Soil cleanup level (mg/kg)	Groundwater cleanup level (µg/L)
Arsenic	--	5
TPH	200	1,000
PCBs	10	--
Chromium	500	--
Mercury	1.0	--
Ethylbenzene	20	--
Xylenes	20	--

PCBs = polychlorinated biphenyls

µg/L = micrograms per liter

mg/kg = milligrams per kilogram

TPH = total petroleum hydrocarbons

¹⁰ <https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704>

Cleanup action levels

In addition to the cleanup standards, a “cleanup action level” (like a remediation level) was established for TPH. The cleanup action level was used to determine at what point active remediation would be considered complete in each of the cleanup areas, as described below.

- Area 11 Sandblast Fill Area - Weyerhaeuser was required to excavate soil to the cleanup level of 500 mg/kg for chromium and 10 mg/kg for PCBs, or to the surface of groundwater. Chromium and PCBs in soil were the constituents of potential concern (COPC)s in this area.
- Area 12 Old Mill C - Weyerhaeuser was required to excavate soil to the cleanup action level (remediation level) of 1,000 mg/kg TPH, or to the surface of groundwater. The TPH action level could be modified with Ecology approval to 2,500 mg/kg if visually observable amounts of organic material were found during excavation.
- Area 14 Wood Chip Pile - Weyerhaeuser was required to excavate soil to the cleanup action level (remediation level) of 1,000 mg/kg TPH and cleanup level of 1.0 mg/kg mercury, or to the surface of groundwater. The TPH action level could be modified with Ecology approval to 2,500 mg/kg if visually observable amounts of organic material were found during excavation. TPH and mercury in soil were the COPCs in this area.
- Area 15 Fuel Tank Area - Weyerhaeuser was required to dismantle and scrap the 577,000-gallon fuel AST, remove the contaminated foundation located below the tank, and excavate soil to the cleanup action level (remediation level) of 1,000 mg/kg TPH, or to the surface of groundwater. TPH in soil was the COPC in this area.
- Area 16 Pulp Mill - Weyerhaeuser was required to excavate soil around the old lube oil shed to the cleanup action level (remediation level) of 1,000 mg/kg TPH, or to the surface of groundwater. TPH in soil was the COPC in this area.

Cleanup actions

Six of the 8 areas were selected for cleanup. These were: Areas 11, 12, 13, 14, 15, and 16. Cleanup methodologies used on the Site were soil excavation with off-site disposal and institutional controls (for the contamination left in place that exceeds cleanup levels). Cleanup of the Site was accomplished under a Consent Decree recorded in 1994.

Remediation at the Site was completed in 1995. Weyerhaeuser was required to backfill each excavation with clean fill. This was done during each of the listed efforts, with the findings documented by EMCON Consultants (EMCON) in a *Soil Remediation Completion Report*, dated February, 1995¹¹. EMCON concluded in this report that all soil remediation work required by

¹¹ February 1995, *Soil Remediation Completion Report for Weyerhaeuser Everett West Site*, prepared by EMCON Consultants.

the Consent Decree had been completed. Ecology concurred with EMCON's conclusions in a July 25, 1995 Memorandum.

Groundwater monitoring

Under the Consent Decree, Weyerhaeuser was required to perform groundwater monitoring quarterly for three years (1994, 1995, and 1996) and annually for two years (1997 and 1998). After the fifth year, the Decree required that Ecology and Weyerhaeuser exchange proposals to decide whether continued groundwater monitoring would be necessary to protect public health and the environment. This decision did not occur on schedule and instead, annual monitoring continued until 2009, with gaps from 2000 to 2003, and between 2004 and 2008.

In 2009, Weyerhaeuser submitted proposals to modify and/or end annual groundwater monitoring^{12,13}. Ecology responded that annual monitoring should continue, or Weyerhaeuser should conduct a study to demonstrate that remaining groundwater CUL exceedances were attributable to an off-property source.

A *Groundwater Compliance Monitoring Plan Addendum* was prepared in 2011 by Floyd Snider¹⁴ and approved by Ecology. The scope of work presented in the *Addendum* included restoration of the monitoring well network, annual groundwater sampling, and reporting requirements. Floyd Snider subsequently prepared and submitted a *Groundwater Compliance Monitoring Reporting Clarification* memorandum, dated February 13, 2012¹⁵, to document Weyerhaeuser's intent to conduct quarterly monitoring and reporting at the Site.

Quarterly groundwater monitoring of four monitoring wells (MW-1202R, MW-1203R, MW-1301R, and MW-1501R) was conducted in 2012 and 2013. With the exception of one arsenic exceedance in September 2012 (well MW-1301R), groundwater samples collected during this period were found to be compliant with cleanup levels at the conditional point of compliance established at the property boundary¹⁶. With Ecology's approval, Weyerhaeuser ceased groundwater sampling at the Site after July 2013.

Groundwater sampling has continued to be conducted at varying frequency as part of the [Everett Smelter cleanup project](#)¹⁷, which may have impacted the West Site. The Everett Smelter Project has only monitored one monitoring well located at the West Site and only for arsenic

¹² <https://apps.ecology.wa.gov/cleanupsearch/document/141459>

¹³ <https://apps.ecology.wa.gov/cleanupsearch/document/141460>

¹⁴ <https://apps.ecology.wa.gov/cleanupsearch/document/5713>

¹⁵ <https://apps.ecology.wa.gov/cleanupsearch/document/141461>

¹⁶ <https://apps.ecology.wa.gov/cleanupsearch/document/47280>

¹⁷ <https://apps.ecology.wa.gov/cleanupsearch/site/4298>

(LLMW-01D, installed in 2013). The well is a “deep well”, installed at a total depth of 37 ft bgs. This well was sampled for four consecutive quarterly monitoring events in 2013, once in 2023, and once in 2024. Groundwater samples collected from well LLMW-01D have contained total and dissolved arsenic at concentrations up to 38 µg/L, which exceeds the MTCA cleanup level.

Restrictive 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 June 1, 1995, institutional controls in the form of an [restrictive covenant](#)¹⁸ (Covenant) were recorded for the Site. .

The Covenant recorded for the Site imposes the following limitations:

Section 1. No groundwater may be taken for domestic purposes from any well at the West Site. No residential development may take place on the Site.

Section 2. Any activity on the West Site that may interfere with the Cleanup Action is prohibited. Any activity on the West Site that may result in the release of a hazardous substance that was contained as part of the Cleanup or Interim Cleanup Action(s) is prohibited; provided, however, if future activity on the West Site disturbs or otherwise releases hazardous substances remaining on-site, such substances shall be either (a) removed from the Site and disposed of in accordance with the terms and conditions of the Consent Decree or (b) re-contained on the Site in accordance with the terms and conditions of the Consent Decree. In accordance with the terms and conditions of the Consent Decree, a final report titled Soils Remediation Completion Report for Weyerhaeuser Everett West Site was prepared and identified two locations (CS-1513 and CS-1514) that have contained residual concentrations of petroleum substances that exceed cleanup action levels. CS-1513 is located at N 373,867.1 and E 1,306,845.3. CS-1514 is located at N 373,876.5 and E 1,306,829.0.

Section 3. The owner of the West Site must give written notice to the Department of Ecology, or to a successor agency, of the owner’s intent to convey any interest in the West Site. No conveyance of Title, easement, lease or other interest in the West Site shall be consummated by the owner without adequate and complete provision for the continued operation, maintenance and monitoring of the Cleanup Action.

Section 4. The owner must notify and obtain approval from the Department of Ecology, or from a successor agency, prior to any use of the West Site that is inconsistent with the terms of this Restrictive Covenant. The Department of Ecology or its successor agency may approve such a use only after public notice and comment.

Section 5. The owner shall allow authorized representatives of the Department of Ecology, or of a successor agency, the right to enter the West Site at reasonable times for the purpose of evaluation compliance with the Cleanup Action Plan and the Consent Decree, to take samples,

¹⁸ <https://apps.ecology.wa.gov/cleanupsearch/document/29692>

to inspect Cleanup Actions conducted at the West Site, and to inspect records that are related to the Cleanup Action.

Section 6. The owner of the West Site and the owner's assigns and successors in interest reserve the right under WAG 173-340-740 and WAC 173-340-440 (1991 ed.) to record an instrument which provides that this Restrictive Covenant shall no longer limit the use of the West Site or be of any further force or effect. However, such an instrument may be recorded only with the consent of the Department of Ecology, or successor agency. The Department of Ecology or a successor agency may consent to the recording of such an instrument only after public notice and comment.

Removal from the Hazardous Sites List

In March 2015 the Weyerhaeuser Everett West Site was proposed for removal from the Hazardous Sites List pursuant to WAC 173-340-330(7). A public comment period regarding the proposal was held from March 6th to April 6th, 2015. No comments were received. The Site has been removed from the Hazardous Sites List.

Periodic Review

Effectiveness of completed cleanup actions

During the Site visit Ecology conducted on November 2, 2023, Ecology was able to visually assess and document the integrity of containment at the Site. Ecology also verified the location and condition of several monitoring wells. A photo log is in Appendix C.

The Site currently has several commercial/industrial tenants, including Everett Engineering, Inc. (machine shop), SP Systems LLC (boat repair), Ace Metals, and Cadman. In 2020, Cadman installed and began operation of a thermal desorption unit to treat contaminated soil imported to the facility.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 1995. The Covenant remains active and discoverable through the Snohomish County Recording Office. Ecology found no evidence a new instrument has been recorded that limits the effectiveness or applicability of the Covenant. 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.

The Consent Decree states that soils left in place that exceed cleanup levels must be noted on the property deed (Consent Decree 94 2 07559 2, Exhibit B, page B-18). Ecology communicated this requirement to Weyerhaeuser via electronic communication on September 23, 2016. However, the Covenant has not yet been amended or superseded with a new Covenant.

The existing Covenant does not appear to accurately reflect the contaminated soils that were left in place that exceed cleanup levels (see figure in Appendix B, which shows the contaminated areas as compared to the remedial excavations). The Covenant references two locations (samples CS-1513 and CS-1514) that exceed “cleanup action levels”. As previously described in this report, cleanup action levels (like remediation levels) were used to determine at what point “active remediation” (excavation) was considered complete. These levels are different than cleanup levels. Soils exceeding cleanup levels require institutional controls in order for the cleanup action to be protective of human health and the environment. The Covenant should accurately notify future property owners of, and place restrictions on, all contaminated areas.

In addition, MTCA Method A soil cleanup levels for industrial land use were selected at the Site. However, the Covenant does not restrict land use to industrial, which is required when using cleanup levels for industrial land use. This requirement is also noted in the Consent Decree (Consent Decree 94 2 07559 2, Exhibit B, page B-22).

Direct contact

The cleanup actions were intended to eliminate exposure to contaminated soil and groundwater at the Site. Exposure pathways to contaminated soils by ingestion and direct contact were reduced by excavation, off-site disposal, and the use of clean backfill in the remedial excavations.

However, it is unclear whether the areas with remaining contaminated soils were capped, since it was not referenced in the 1994 Cleanup Action Plan or 1995 Soil Remediation Completion Report. Contaminated soils were identified during the remedial investigations between approximately the surface and 6 feet bgs¹⁹. This is likely not a concern in the remedial excavation areas (which were excavated to comply with remediation levels), since clean backfill was used. But may be a concern in the areas where contaminated soils were left in place above cleanup levels (see figure in Appendix B). There is a potential risk of exposure or release of Site contaminants in uncapped areas.

In addition, Ecology observed a portion of the Site being graded during the Site visit (in Area 17, where there was a structure fire in 2016). Ecology was not contacted regarding this work. However, this area does not appear to contain contaminated soils left in place as part of the cleanup action. Additionally, the grading may have been fill that was brought to the Site, based on the elevation of the ground surface (several feet above the surrounding surface), material characteristics (Type 17 fill), and satellite imagery of what appeared to be stockpiles of imported material in that area.

Ground disturbing activities at the Site could result in the release or exposure of contaminants contained as part of the cleanup action. Ecology’s approval should be obtained in advance of

¹⁹ <https://apps.ecology.wa.gov/cleanupsearch/document/7984>

ground disturbing activities in the future, and the Covenant should accurately reflect the contaminated areas.

Protection of groundwater

Soils with TPH at concentrations exceeding MTCA Method A cleanup levels remain at the Site; however, most of the contaminated soil source material has been removed. Groundwater concentrations of Site contaminants of concern were confirmed to be below the Method A cleanup levels as of July 2013, and Ecology has since approved the cessation of groundwater monitoring.

Well MW-1203R was identified during Ecology's October 2023 site visit. The well is located at the north end of the property, at the top of the Snohomish riverbank. Cracks were observed in the ground surface surrounding the well, and the slope appeared to be actively caving toward the river (see photograph 6 in Appendix C).

Protection of surface water

Protection of stormwater discharge to surface water bodies was not specifically discussed in the consent decree or environmental covenant. However, large areas of standing stormwater were observed in the northern paved portion of the property (particularly in cleanup area 12, see photograph 3).

Some areas of the Site are unpaved, and it is unknown whether remaining contaminated soils were capped, as previously discussed. This could be a potential concern with regards to stormwater runoff to the Snohomish River.

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

Stormwater discharge permit

The Cadman facility, located in the western portion of the Site, has permit coverage under Ecology's Industrial Stormwater General Permit (ISGP), managed by Ecology's Water Quality Program (WQP). This permit is required because an industrial facility is discharging stormwater to the Snohomish River and is unrelated to the cleanup site or consent decree managed by Ecology's Toxics Cleanup Program (TCP).

The permit number is ISGP #WAR307781 and the facility name on the permit is Delta Site Soil Thermal Desorption Unit. Permit violations were identified during the February 16, 2023, inspection by the WQP. The permittee worked with the WQP to address the violations.

Climate change resiliency

Since completion of the Site cleanup, Ecology has issued guidance for increasing the resiliency of cleanups to climate change impacts (*Sustainable Remediation: Climate Change Resiliency and Green Remediation*²⁰). The current guidance provides evaluation criteria for five site-specific risk categories:

- Sea level rise and coastal inundation
- Flooding
- Wildfire
- Landslide and erosion
- Drought

Since a climate vulnerability assessment has not previously been conducted for the Site, the TCP Maps Climate Change analytical tool was used to assess potential vulnerabilities, per the guidance.

The TCP Maps Climate Change analytical tool indicates that portions of the Site are in a 500-year storm historic flooding area, which may be at increased risk due to sea level rise. The TCP analytical tool also indicates that portions of the Site may be at greater risk if sea level were to rise approximately 4 feet.

To evaluate the likelihood of that increment of sea level rise, the UW Climate Impacts Group tool was used²¹. The UW tool indicates that the probability of a 4-foot rise in sea level is very unlikely in the next 60 years. In approximately 100 years, the probability increases to 5 to 10%. A climate change vulnerability assessment does not appear to be warranted at this time, but may be in the future.

Current and projected Site and resource uses

The Site is used for commercial and 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.

²⁰ <https://apps.ecology.wa.gov/publications/documents/1709052.pdf>

²¹ [Interactive SLR Projection Tools | Washington Coastal Hazards Resilience Network \(wacoastalnetwork.com\)](https://wacoastalnetwork.com/)

Availability and practicability of more permanent remedies

The remedy implemented included containing hazardous substances. 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 periodic review concluded that the remedy may not be adequately protective of human health and the environment. The findings include:

- The Consent Decree required a land use restriction since MTCA Method A soil cleanup levels for industrial land use were selected at the Site. The existing Covenant does not restrict land use to industrial and should be amended or replaced.
- The Consent Decree states that soil left in place that exceeds cleanup levels must be noted on the property deed. The existing Restrictive Covenant does not accurately describe these contaminated areas. The Covenant only references two sample locations in one area that exceeded remediation levels (which were used to determine at what point the remedial excavations were considered complete). Soils exceeding cleanup levels that were left in place throughout the Site require institutional controls in order for the remedy to be protective of human health and the environment. The Covenant should accurately notify future property owners of, and place restrictions on, all contaminated areas.
- It is unclear whether the areas with remaining contaminated soils were ever capped. Contaminated soils were identified during the remedial investigations between approximately the surface and 6 feet bgs. This is unlikely to be a concern in the remedial excavation areas (which were excavated to comply with remediation levels), since clean backfill was used, but may be a concern in the areas where contaminated soils were left in place above cleanup levels. There is a potential risk of exposure or release of Site contaminants in uncapped areas with shallow soil contamination.
- Ecology observed grading activities during the Site visit. Ground disturbing activities could result in the release or exposure of contaminants contained as part of the cleanup action, which is restricted by the Covenant. Ecology's approval should be obtained in advance of ground disturbing activities in the future.

- Monitoring well MW-1203R is located at the north end of the Site, at the top of the Snohomish riverbank. Cracks were observed in the ground surface surrounding the well, and the slope appeared to be actively caving toward the river. This well should be repaired or replaced. Alternatively, if this well and the other 3 monitoring wells for the Site (MW-1202R, MW-1301R, and MW-1501R) are no longer being used for monitoring, they should be properly decommissioned.

Next steps

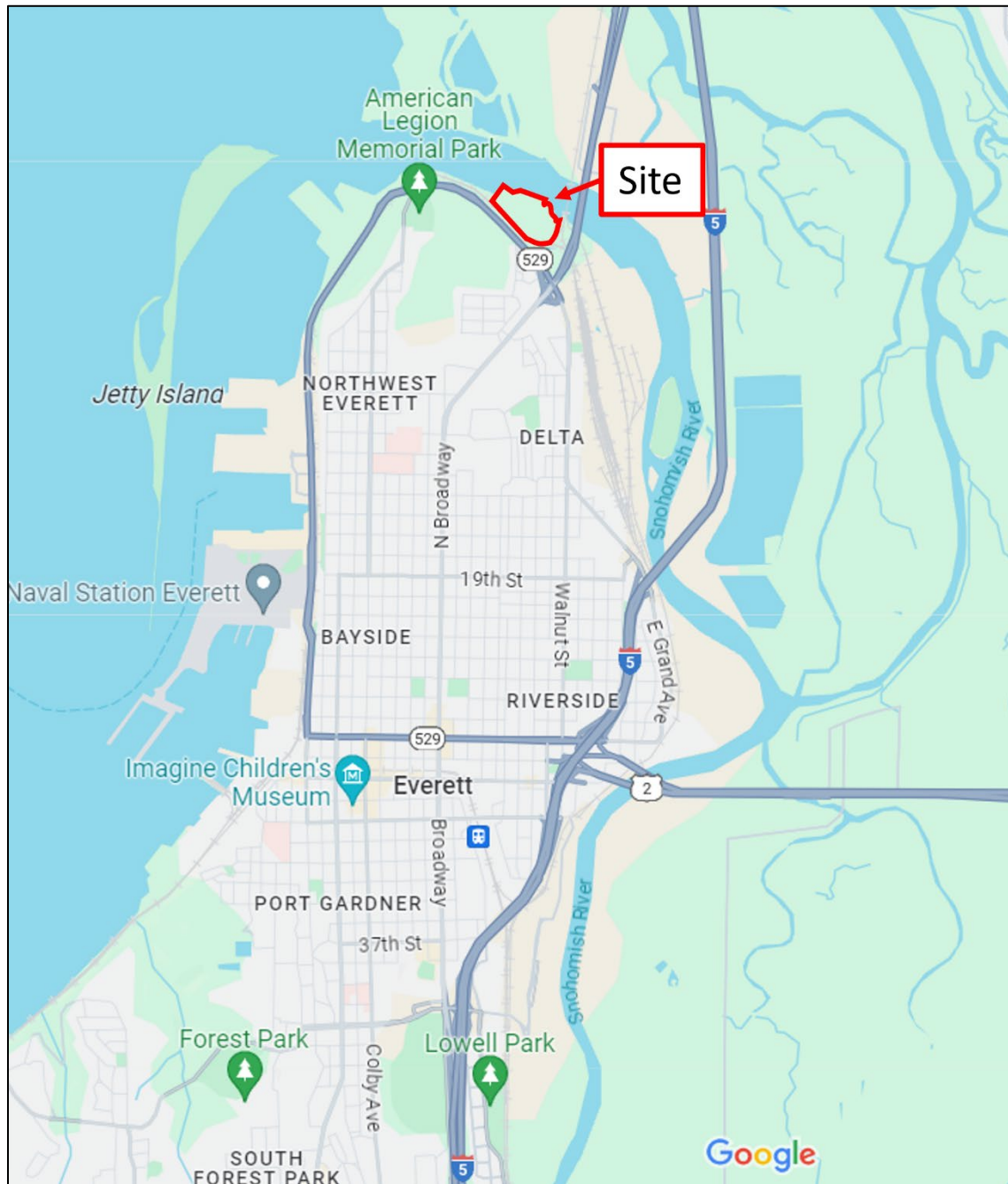
Ecology will work with the PLP and/or property owner to address these concerns.

The PLP and/or property owner is responsible for continuing to inspect the Site to ensure the integrity of the cleanup action is maintained, including preventing the exposure or release of Site contaminants.

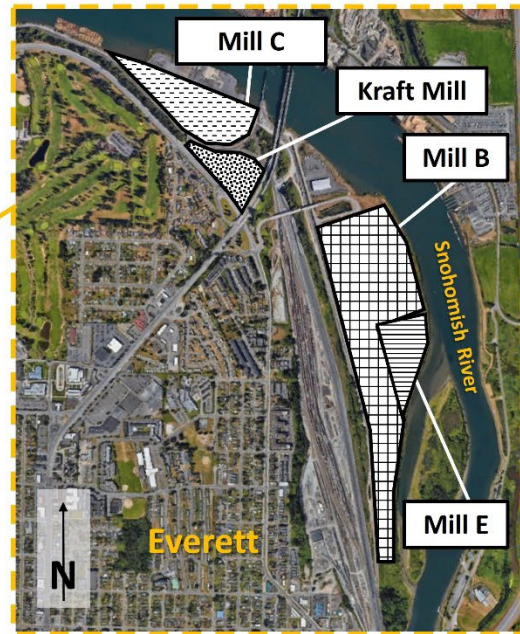
Next review

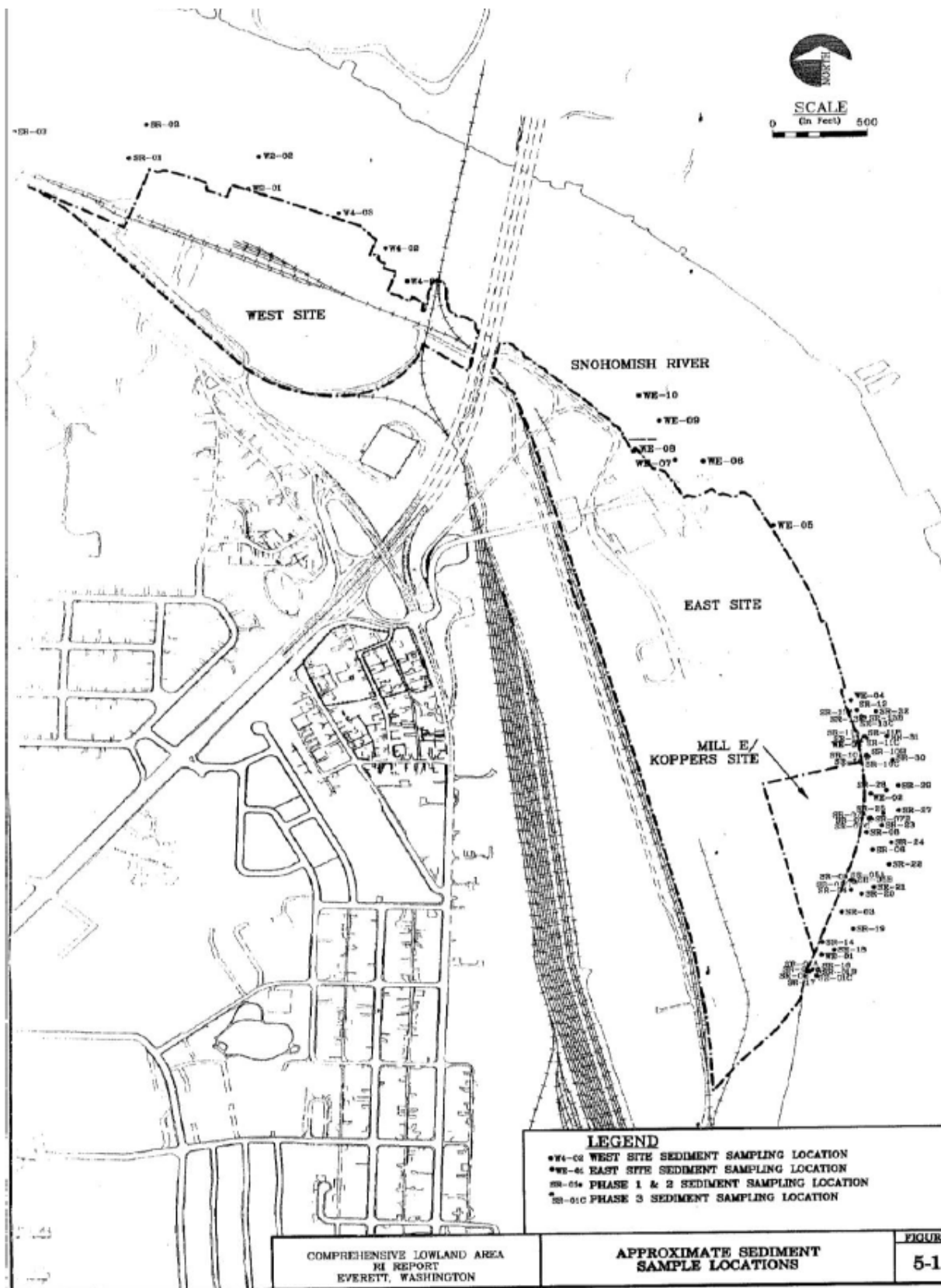
Ecology will schedule the next review for the Site five years from the date of this periodic review. If additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years after those activities are completed.

Appendix A. Vicinity Maps

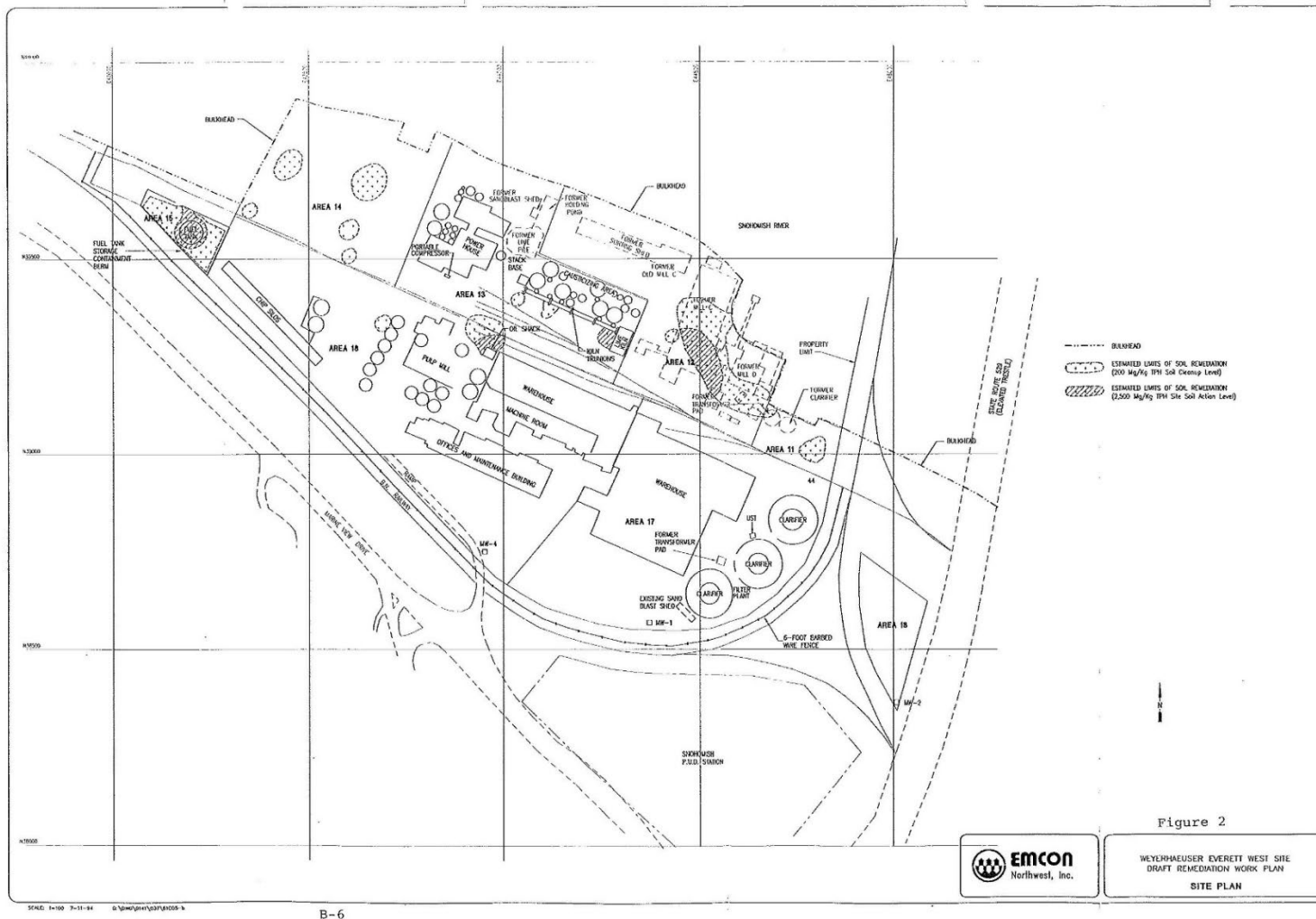


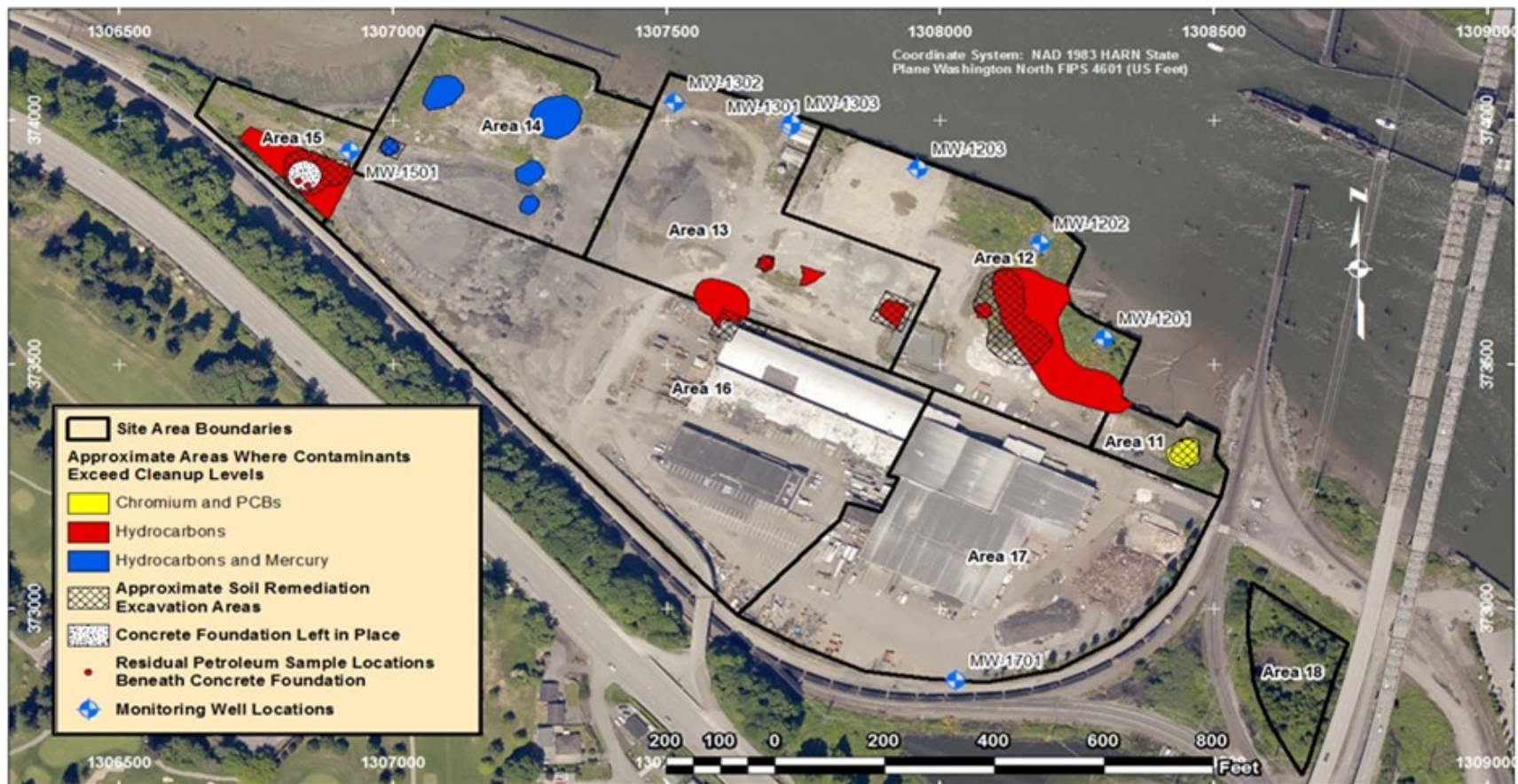
Historic Weyerhaeuser Mills | Everett, WA





Appendix B. Site Plans





Soil remediation excavation areas and areas where contaminants exceed cleanup levels. Contamination limits from Exhibit B, Figure 2, of the 1994 Prospective Purchaser Consent Decree. Approximate excavation areas from EMCON, 1995, Figure 2-1.

Appendix C. Photo Log

Photo 1: Soil Thermal Desorption Facility operated by Cadman.



Photo 2: Northwest corner of the property (Cleanup Area 15 located in the forested area beyond gravel road).



Photo 3: Flooded ground surface, looking east toward former Mill C (Cleanup Area 12).



Photo 4: Looking south, footprint of former building, demolished following a 2016 structure fire. Area was being graded during Site visit.



Photo 5: Graveled material/equipment storage area, looking northwest, toward Cleanup Area 12 (vegetated area in background).



Photo 6: Well MW-1203R looking northwest, toward the Snohomish River. Slope failure can be seen adjacent to the well.



Photo 7: Photograph locations

