Second Periodic Review
Manito Shopping Center

802 E 29th Avenue, Spokane, WA 99203
Facility Site ID: 9406814, Cleanup Site ID: 1654

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

April 2023

Document Information

This document is available on the Department of Ecology's Manito Shopping Center cleanup site page.[1]

Related Information

- Facility Site ID: 9406814
- Cleanup Site ID: 1654

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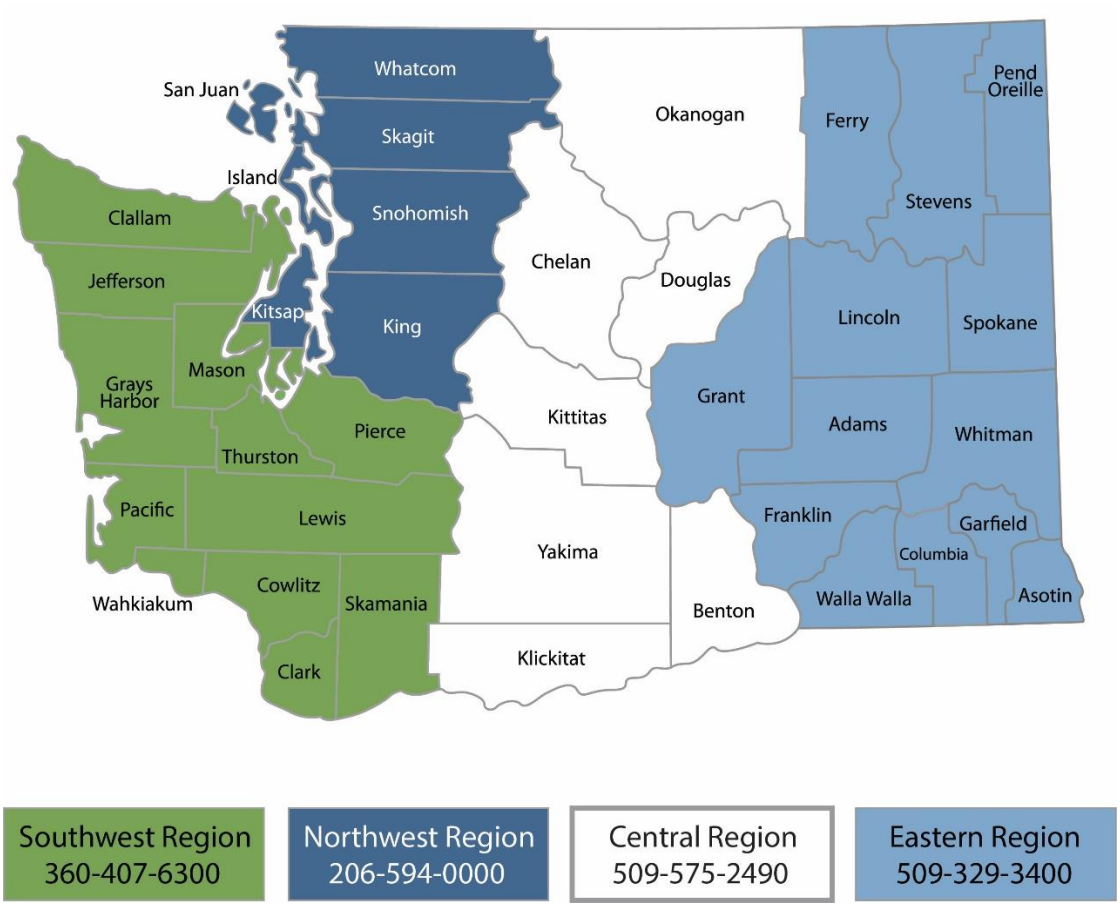
[1] https://apps.ecology.wa.gov/cleanupsearch/site/1654
[2] https://ecology.wa.gov/About-us/Who-we-are/Our-Programs/Toxics-Cleanup
[3] https://ecology.wa.gov/About-us/Accountability-transparency/Our-website/Accessibility

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 Manito Shopping Center cleanup site (Site). Site cleanup was implemented under the Model Toxics Control Act (MTCA) regulations, Chapter 173-340 Washington Administrative Code (WAC). This is the second periodic review conducted for this Site. Ecology completed the first periodic review in May 2015.

Cleanup activities at this Site were completed under the Voluntary Cleanup Program (VCP) under project ID EA0172. Residual concentrations of polycyclic aromatic hydrocarbons (PAHs) and volatile organic compounds (VOCs) that exceeded MTCA cleanup levels remain 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 for the Site and required institutional controls 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

Ecology publishes a notice of all periodic reviews in the *Site Register* and provides an opportunity for public comment.

[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 618 E 30th Avenue and 3001 S Grand Boulevard in the City of Spokane in Spokane County, Washington. Ecology records indicate the Site address was listed as 802 E 29th Avenue at the time of cleanup. The boundary of the Site extends onto two Spokane County tax parcels identified as Parcel Nos. 35322.0108 and 35322.0109.

The Site is a shopping center parking lot in a mixed residential and commercial area. Asphalt surfaces cover approximately 0.6 acres and include parking spaces and driving lanes. Commercial businesses including the Manito Tap House, Ross Dress for Less, Republic Pi Pizza, Beyoutiful Hot Yoga, Verizon Wireless, US Bank, and Chase Bank are next to the parking area on the north and east sides of the Site. South Hill Pediatric Dentistry is on the adjacent property to the south. The Site is bordered by South Grand Avenue to the west. The Manito Exxon Foodmart leaking underground storage tank (LUST) cleanup site (CSID 4967) is approximately 600 feet from the Site on the southwest corner of East 29th Avenue and South Grand Boulevard.

A dry-cleaning facility operated at the Site from approximately 1940 to 1947 and from 1955 to 1969. A gas station operated on the southeast adjacent parcel from approximately 1940 to 1960. The Site has been a parking lot since approximately 1969 when Lamont's department store was constructed to the east of the Site.

A vicinity map is in Appendix A, and a Site plan is in Appendix B.

Site investigations

In 2007, a subsurface investigation was conducted to evaluate potential environmental impacts due to the presence of the former on-site dry cleaner and adjacent gas station. EBI Consulting (EBI) advanced three soil borings (B1, B2, and B3) in the existing parking lot within the presumed location of the former dry cleaner tenant space and next to the former gas station southeast of the Site. The borings were advanced to refusal at basalt bedrock using direct-push drilling methods, reaching depths ranging from eight to twelve feet (ft) below ground surface (bgs). Two soil samples were collected from each boring and were analyzed for VOCs and PAHs. EBI reported groundwater was not encountered during the investigation.

Analytical results of the soil samples detected four carcinogenic PAHs (cPAHs) and total cPAHs at concentrations that exceeded the MTCA Method A cleanup levels in one soil sample collected from boring B1 at a depth of 4 ft bgs. A summary of total cPAHs in soil sample B1 at 4 ft indicated a concentration of 2.19 milligrams per kilogram (mg/kg) and a Toxicity Equivalency Factor (TEF) of 0.543 mg/kg. The MTCA Method A cleanup level is based on a TEF of 0.1 mg/kg.

EBI reported concentrations of the dry-cleaning solvent tetrachloroethene (PCE) exceeded the MTCA Method A cleanup level of 0.05 mg/kg in two soil samples collected from borings B1

(1.3 mg/kg) and B2 (0.1 mg/kg) at a depth of 4 ft bgs. Trichloroethene (TCE) was detected at a concentration that exceeded the MTCA Method A cleanup level of 0.03 mg/kg in soil boring B3 (0.11 mg/kg) at a depth of 8 ft bgs. Chloromethane was elevated in soil borings B2 (1.9 mg/kg) and B3 (0.26 mg/kg) at a depth of 8 ft bgs, but there is no applicable MTCA cleanup level for chloromethane.

In 2007 and 2008, LFR Inc. (LFR) advanced six additional soil borings, with three borings converted into groundwater monitoring wells. A total of 24 subsurface soil samples were collected by LFR from the six boring locations. Groundwater samples were collected from the three monitoring wells. All soil and groundwater samples were analyzed for total petroleum hydrocarbons (TPH), VOCs, and PAHs.

PCE and TCE were not detected in the LFR soil samples above the respective laboratory method reporting limit (MRL). In addition, chloromethane was not detected above the MRL in LFR soil samples. No other contaminants associated with petroleum or solvent releases were detected above laboratory MRLs.

Cleanup actions

Limited amounts of PAHs and solvents remain in the soil at concentrations exceeding MTCA Method A cleanup levels. Ecology conducted a site hazard assessment in 2008 and determined the asphalt and concrete parking lot was a sufficient barrier to prevent direct contact or ingestion of contaminated soils. Therefore, Ecology required institutional controls to maintain the cap and groundwater monitoring to demonstrate compliance with groundwater cleanup levels for the Site to meet the established cleanup standards.

Groundwater monitoring

LFR installed three groundwater monitoring wells in the western parking lot, including two down-gradient wells along the Site property boundary (MW1 and MW2) and an up-gradient monitoring well (MW3) in the southeast corner of the Site. Five groundwater monitoring events were conducted for the three wells in September 2007, August 2008, November 2008, February 2009, and April 2009.

Results from the five groundwater monitoring events did not identify the presence of the primary investigated contaminants of concern above the laboratory MRLs during the 15-month assessment, including PCBs, TCE, cPAHs, and chloromethane. The exception was the detection of the cPAH chrysene and VOC chloroform in groundwater samples from MW1 and MW2 during the November 2008 event; concentrations were above the MRL but were below the respective MTCA Method A cleanup levels. These two constituents were not detected in any of the other four events, including the subsequent February and April 2009 monitoring.

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[7] 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 unrestricted land use were determined to be appropriate for contaminants at this Site. The cleanup actions conducted at the Site were determined to be routine, few hazardous substances were found at the Site, and numerical standards were available in the MTCA Method A table for each hazardous substance. These cleanup levels are listed in Table 1.

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 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)
PCE	0.05	5.0
TCE	0.03	5.0
PAHs	0.1	0.1

PCE = Tetrachloroethene
TCE = Trichloroethene
PAHs = Polycyclic aromatic hydrocarbons
mg/kg = milligrams per kilogram
µg/L = micrograms per liter

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 June 2, 2009, institutional controls in the form of an

[7] https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-704

environmental covenant[8] (Covenant) were recorded for the Site in Spokane County under recording number 5797832.

The restrictions implemented in the Covenant are listed below.

1. The Property contains VOCs and PAHs within the West 150 feet of each of Spokane County Tax Parcel Nos. 35322.0108 and 35322.0109, as detailed in the attached Exhibit A of the Covenant. The portion of the Property described above and depicted in Exhibit A is hereinafter referred to as the "Capped Area''.

   The Owner shall not alter, modify, or remove the existing structure(s) immediately above the Capped Area in any manner that may result in the release or exposure to the environment of that contaminated soil or create a new exposure pathway without prior written approval from Ecology. Any activity on the Property that may result in the release or exposure to the environment of the contaminated soil that was contained as part of the Remedial Action, or create a new exposure pathway, is prohibited. Some examples of activities that are prohibited in the Capped Area include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, piercing the surface with a rod, spike or similar item, bulldozing, or earthwork.

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 the 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 exposure pathway, is prohibited.

4. The Owner of the Property must give thirty (30) day advance written notice to Ecology of the Owner's intent to convey any interest in the Property except that the Owner need not give advance written notice to Ecology if the Owner leases a subunit of a building located outside of the Capped Area. No conveyance of title, easement, lease, or other interest in the Property shall be consummated by the Owner without adequate and complete provision for 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 use of 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

[8] https://apps.ecology.wa.gov/cleanupsearch/document/82913

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 the Property reserves the right under WAC 173-340-440 to record an instrument that provides that this Covenant shall no longer limit 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

During the Site visit Ecology conducted on March 31, 2023, the observed conditions remained in compliance with the cleanup standards and institutional controls established for the Site. The Site continues to operate as a parking lot for nearby businesses. A photo log is in Appendix C.

Direct contact

The cleanup actions were intended to eliminate exposure to contaminated soil at the Site. Exposure pathways to contaminated soils by ingestion and direct contact were reduced by an engineered cap consisting of asphalt and concrete. The cap continues to eliminate direct exposure pathways (ingestion, direct contact) to contaminated soils. The asphalt appears to be in satisfactory condition. There are visible cracks and signs of degradation, but the surface cover remains sufficient in providing a barrier to physical contact with contaminated soils.

Protection of groundwater

Soils with TCE, PCE, and PAHs at concentrations exceeding MTCA Method A cleanup levels remain at the Site. Groundwater monitoring was conducted for five consecutive quarters through April 2009. Contamination was not detected at concentrations exceeding MTCA Method A cleanup levels. Ecology has determined that contaminated groundwater does not remain at the Site, and groundwater does not pose a threat to human health or the environment. Additionally, several decades have passed since contaminants were originally released to Site soils. Sufficient time has passed for contaminants to migrate to groundwater if it was likely to occur. Groundwater monitoring at the Site serves as an empirical demonstration that residual contaminated soils do not pose a threat to groundwater quality.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2009. The Covenant remains active and discoverable through the Spokane County Auditor's website. 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. This Covenant ensures the long-term integrity of the cleanup action will be protected.

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 commercial 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 are still not 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.
- 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.

Based on this periodic review, Ecology has determined the requirements of the Covenant are being followed. No additional cleanup actions are required by the property owner at this time. The property owner is responsible for continuing to inspect the Site to ensure the integrity of the surface cover is maintained.

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.

References

Ecology. *Site Visit*. March 31, 2023.

Ecology. *Periodic Review*. May 2015.

Ecology. *No Further Action Letter*. June 18, 2009.

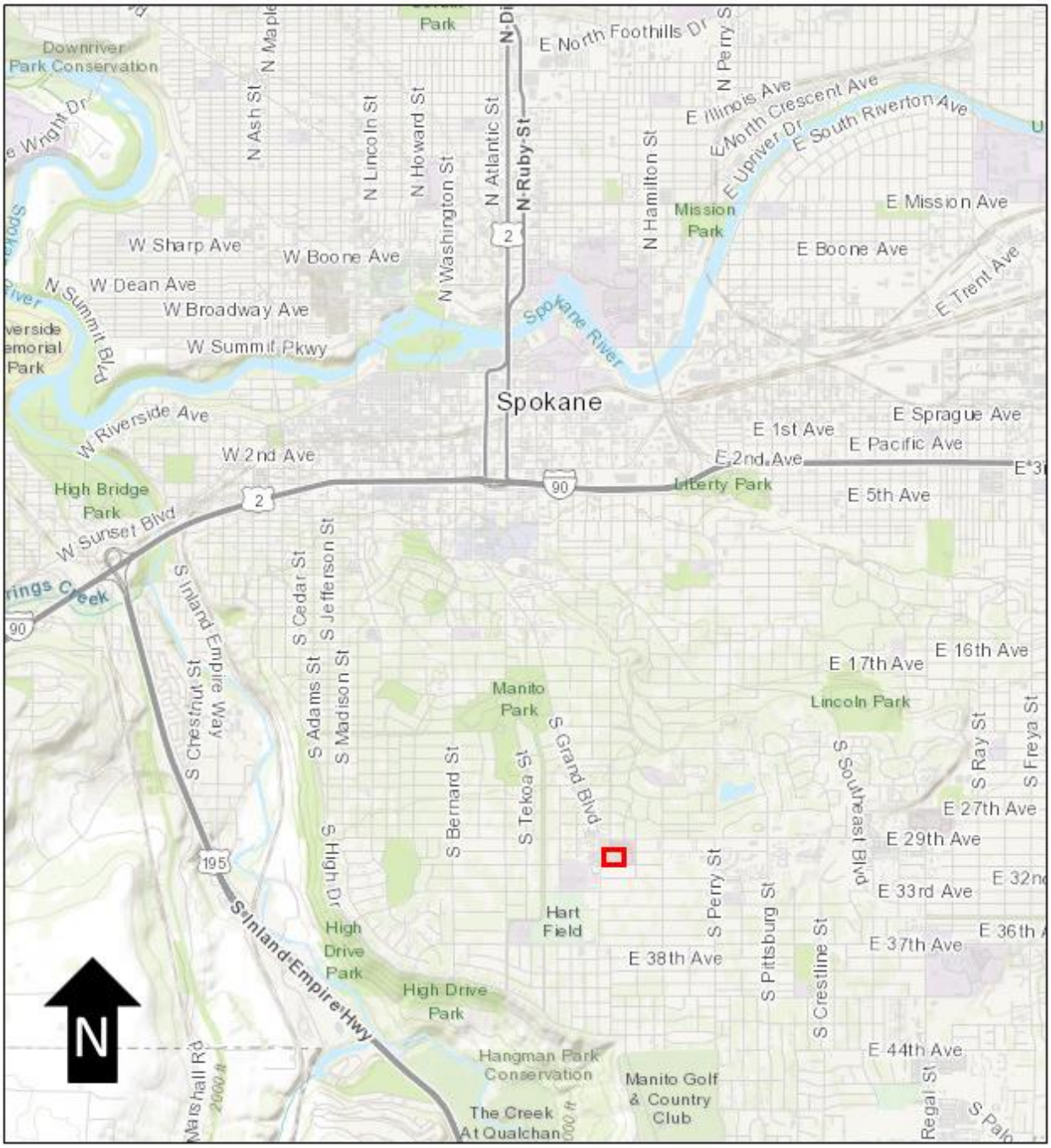
Ecology. *Environmental Covenant, Spokane County Recording Number 5797832*. June 2, 2009.

LFR, Inc. *Final Groundwater Monitoring Event and Request for Site Closure*. May 26, 2009.

LFR, Inc. *Site Characterization and Cleanup Action Plan- Manito Shopping Center*. January 7, 2009.

EBI Consulting, Inc. *Limited Subsurface Investigation Report- Manito Shopping Center*. June 25, 2007.

Appendix A. Vicinity Map



Appendix B. Site Plan

Appendix C. Photo Log

Photo 1: Manito Shopping Center Site – from the west

Photo 2: Manito Shopping Center Site – from the south

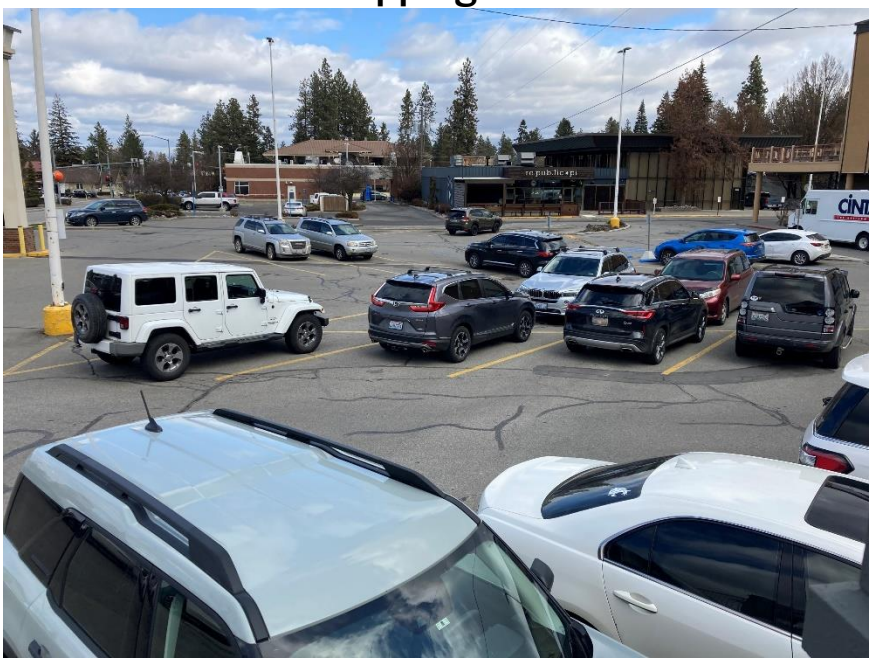


Photo 3: Manito Shopping Center Site – from the east

Photo 4: Manito Shopping Center Site – from the north