



Second Periodic Review Progress Elementary Site

**710 N Progress Rd, Spokane Valley, Spokane County
Facility Site ID: 1740049, Cleanup Site ID: 2044**

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

November 2023

Document Information

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

Related Information

- Facility Site ID: 1740049
- Cleanup Site ID: 2044

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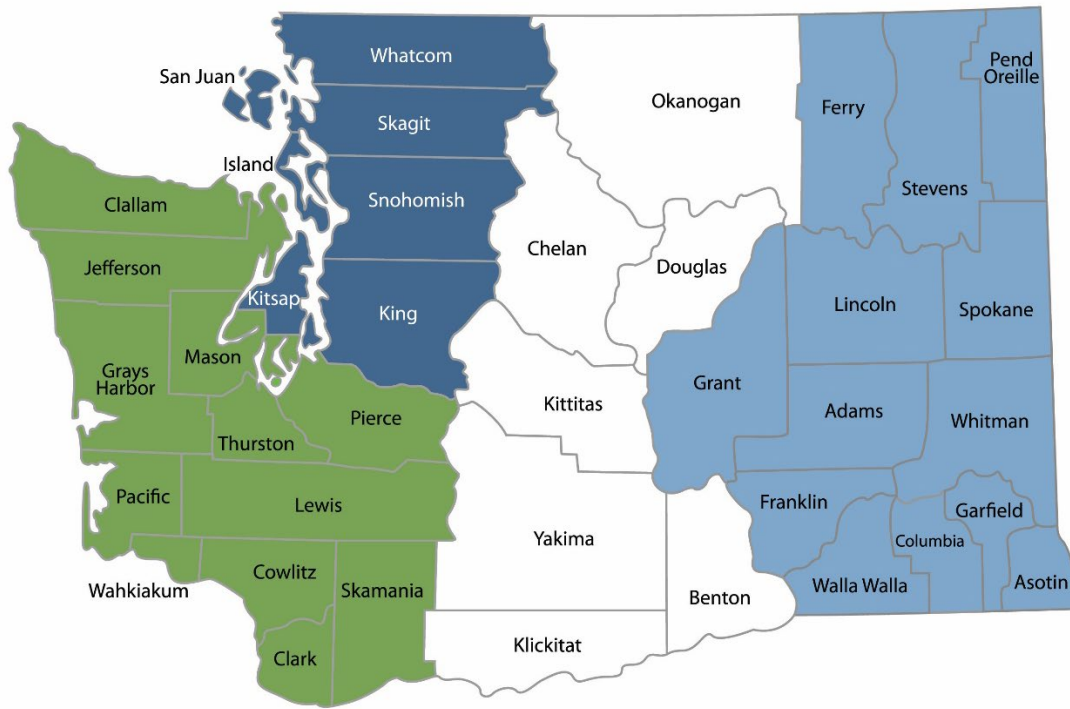
¹ <https://apps.ecology.wa.gov/cleanupsearch/site/2044>

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
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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 Progress Elementary 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 July 2017.

Cleanup activities at this Site were completed as independent action in 2007. Residual concentrations of metals that exceeded MTCA cleanup levels remain on the property. The MTCA cleanup levels for soil and groundwater are established under [WAC 173-340-740](https://app.leg.wa.gov/WAC/default.aspx?cite=173-340-740)⁴ and [WAC 173-340-720](https://app.leg.wa.gov/WAC/default.aspx?cite=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\(2\)](https://app.leg.wa.gov/WAC/default.aspx?cite=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 an institutional control was 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

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 in the City of Veradale. The Site contains a public school facility consisting of 9.3 acres, of which 5.5 acres is playfield, and the remainder is occupied by the school building and landscaping. The Site is in a residential neighborhood and surrounded by residential housing. Site soils consist of gravely silty to sandy loam. At depth, rock types included basalt and granite pebbles, gravel, and cobbles. Groundwater flow is to the southeast, and depth to groundwater is approximately 110 feet below ground surface.

Lead arsenate and organochlorine pesticides were common agricultural chemicals used in apple orchard operations in Washington State; lead arsenate was used about the turn of the century through the 1940s, at which time organochlorine pesticides debuted. These chemicals were applied to the orchard that formerly occupied the school property to control pests that affect orchard productivity.

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

Site investigations

In summer 2005, Spokane County Regional Health District personnel completed soil sampling at all 15 school district properties. Sampling was focused on child-use areas or areas that represented potential exposure routes (such as bare dirt). Results indicated that Progress Elementary had lead and arsenic concentrations exceeding MTCA cleanup levels of 250 milligrams per kilogram (mg/kg) and 20 mg/kg, respectively. Follow-up soil sampling was performed at Progress Elementary to confirm previous data and better delineate the extent of contamination. Over both sampling events, soil samples showed arsenic concentrations averaging about 44 mg/kg with a maximum of 106 mg/kg, and lead averaging 137 mg/kg with a maximum of 643 mg/kg.

In August 2006, the Site received a MTCA Site Hazard Assessment and was ranked a 3. The ranking was heavily influenced by the fact that young children use the play areas and that lead and arsenic are considered especially toxic for children. The Site was also listed on the State's Hazardous Sites List.

Cleanup actions

In May 2007, an Interim Action Work Plan was prepared outlining the proposed remedial actions.

In summer 2007, the interim action was completed. Appendix B shows the area of cleanup work outlined in blue. Work consisted of:

1. Modification of existing irrigation system: The existing irrigation system had sprinkler heads stubbed up to meet the new ground surface elevation.

2. Removal of gravel play areas: The existing gravel and concrete curbing was removed and appropriately disposed of.
3. Placement of geotextile membrane: A geotextile membrane was placed over the existing permeable (soil or grass) ground surface. Accommodations were made for trees, play equipment, benches, and other existing surface structures, as they were not removed for this project.
4. Placement of clean imported topsoil: Imported topsoil was spread to a depth of 6" over the entire site. Imported soil was graded to accommodate the borders with impermeable surfaces and compacted.
5. Placement of topsoil nutrient amendment: Amendment was added to areas that received hydroseed or sod.
6. Replacement of surface cover: Ground covers that existed prior to work were replaced in-kind. Hydroseed or sod was used in areas that previously were grass. Gravel and concrete curbing were used in the areas under play equipment.

Ecology issued a no further action determination for the Site in February 2009.

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)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.

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).

Environmental Covenant

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

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 1, 2008, institutional controls in the form of an [environmental covenant](#)⁸ (Covenant) were recorded for the Site.

The Covenant recorded for the Site imposes the following limitations:

1. 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 areas include: drilling, digging, placement of any objects or use of any equipment which deforms or stresses the surface beyond its load bearing capability, bulldozing or earthwork. This restriction does not include minor maintenance activities including: repairing or replacing sprinkler heads, re-seeding or re-sodding portions of the fields, or minor repairs to the sprinkler system plumbing.
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 without prior written approval from Ecology.
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. 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 Restrictive 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 Restrictive 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, 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 Restrictive Covenant shall no longer limit use of the

⁸ <https://apps.ecology.wa.gov/cleanupsearch/document/1994>

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 October 23, 2023, the remedy appears to be functioning as intended. The Site is operating as an elementary school. The capped field and play areas are in excellent condition. The turf is well maintained, and the only observed areas of bare soil are in one of the three baseball fields where there is concentrated use at the pitcher's mound and home plate. Two small, raised vegetable beds have been added in one of the gravel play areas, and Ecology confirmed that soil used within them was donated from a landscaper from a clean source. The Site continues to be used by children during recess, physical education, and by the community during non-school hours. The clean soil cap continues to eliminate direct human and ecological exposure pathways (ingestion, contact) to contaminated soils. 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 combination of physical access restrictions and institutional controls. Fencing and turf maintenance are effective in limiting exposure to capped soils.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 2008. The Covenant remains active and discoverable through the Spokane County Auditor. 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 currently used as a public school facility. 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 cap 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

Spokane Regional Health District. *Central Valley Schools Soil Contamination Project*. April 2005.

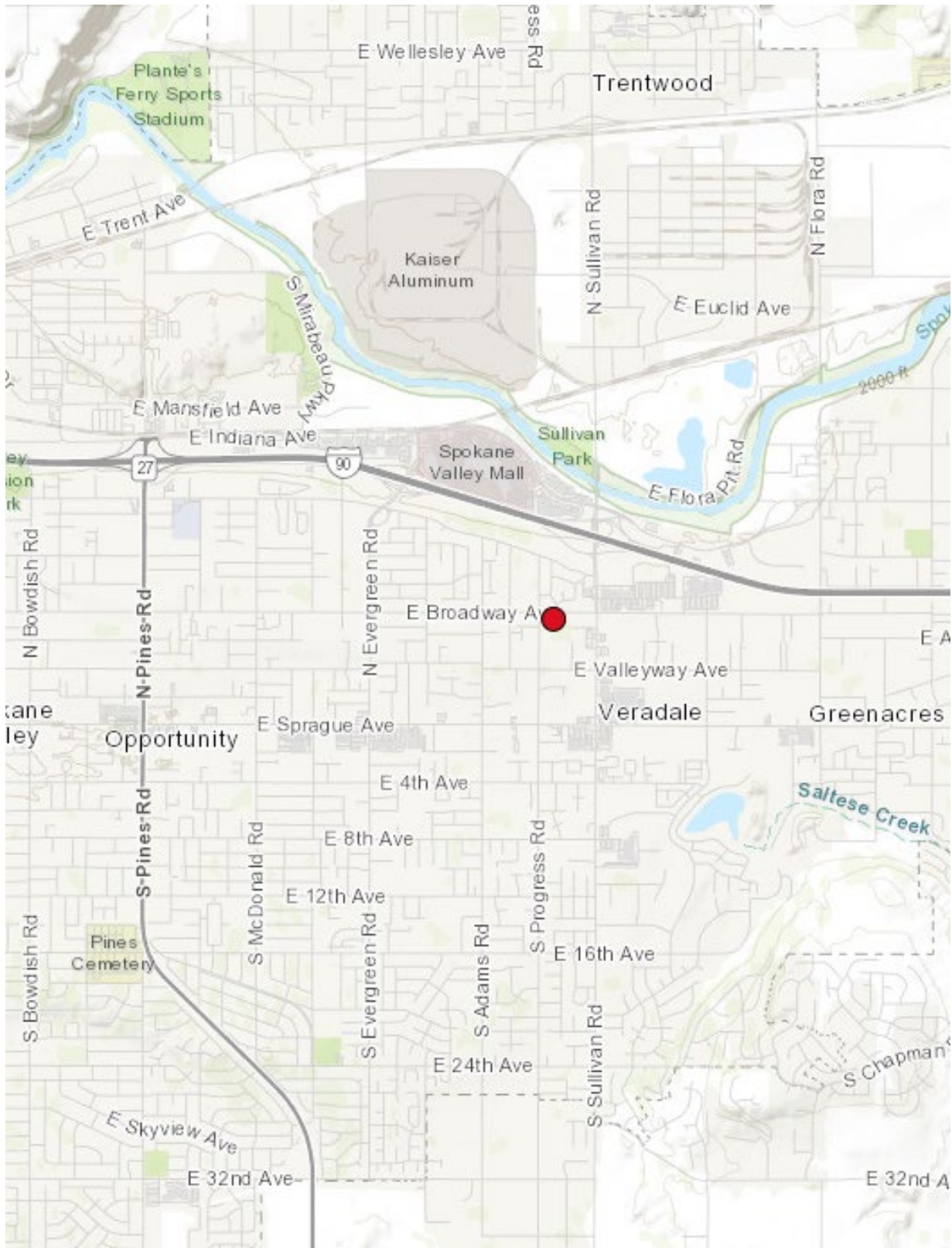
Ecology. *Interim Remedial Action Work Plan*. July 2007.

Ecology. *Environmental Covenant*. August 1, 2008.

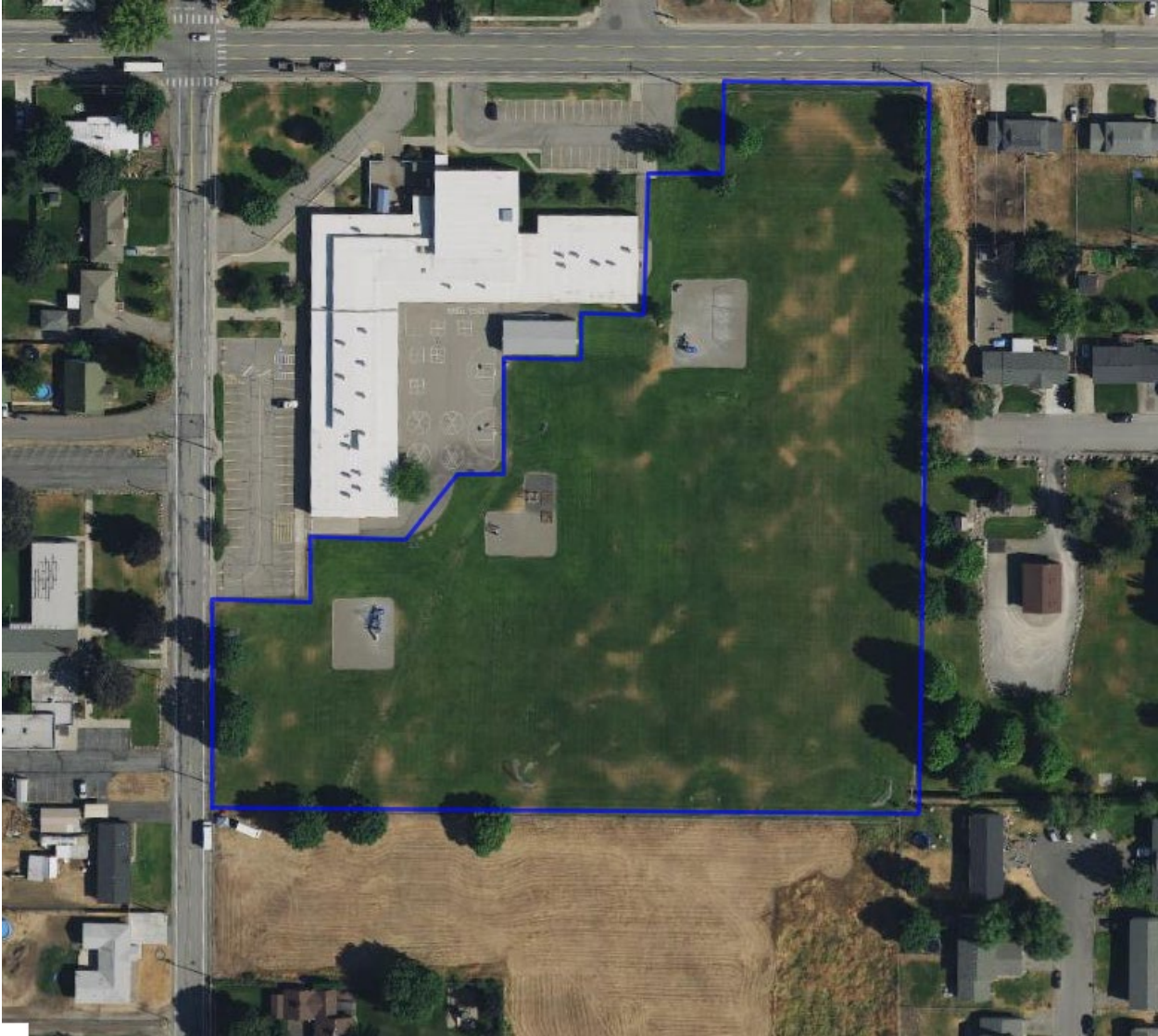
Ecology. *First Periodic Review*. July 2017.

Ecology. Site visit. October 23, 2023.

Appendix A. Vicinity Map



Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: Capped area looking west



Photo 2: Capped area looking north



Photo 3: Gravel capped play area looking west



Photo 4: Added raised garden beds looking west

