



Periodic Review

Progress Elementary
Facility Site ID#: 1740049
Cleanup Site ID#: 2044

710 North Progress Road
Veradale, WA 99037

Prepared by:
Washington State Department of Ecology
Eastern Region Office
Toxics Cleanup Program

July 2017

1.0 INTRODUCTION.....	1
2.0 SUMMARY OF SITE CONDITIONS.....	2
2.1 Site History	2
2.2 Previous Site Investigations and Remedial Actions	2
2.3 Cleanup Levels and Point of Compliance.....	2
2.4 Environmental Covenant	3
3.0 PERIODIC REVIEW	5
3.1 Effectiveness of completed cleanup actions	5
3.1.1 Direct Soil Contact	5
3.1.2 Institutional Controls	5
3.2 New scientific information for individual hazardous substances for mixtures present at the Site	5
3.3 New applicable state and federal laws for hazardous substances present at the Site	5
3.4 Current and projected Site use	5
3.5 Availability and practicability of higher preference technologies	5
3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels	6
4.0 CONCLUSIONS	7
4.1 Next Review.....	7
5.0 REFERENCES.....	8
6.0 APPENDICES.....	9
6.1 Vicinity Map	10
6.2 Site Map	11
6.3 Environmental Covenant	12
6.4 Photo log	17

1.0 INTRODUCTION

This document is the Department of Ecology's review of post-cleanup site conditions and monitoring data to assure that human health and the environment are being protected at the Progress Elementary School site (Site). Cleanup at this Site was implemented under the Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code (WAC).

Cleanup activities at this Site were completed as an independent action. The cleanup actions resulted in residual concentrations of lead and arsenic that exceed MTCA Method A cleanup levels for soil established under WAC 173-340-740(2). The MTCA Method A cleanup levels for soil are established under WAC 173-340-740. Institutional controls were implemented at the Site in the form of an environmental covenant to prevent exposure and release of contaminated soils capped as part of the remedy for the Site. WAC 173-340-420 (2) requires that Ecology conduct a periodic review of a site every five years under the following conditions:

- (a) Whenever the department conducts a cleanup action
- (b) Whenever the department approves a cleanup action under an order, agreed order or consent decree
- (c) Or, as resources permit, whenever the department issues a no further action opinion
- (d) And one of the following conditions exists:
 - 1. Institutional controls or financial assurance are required as part of the cleanup
 - 2. Where the cleanup level is based on a practical quantitation limit
 - 3. Where, in the department's judgment, modifications to the default equations or assumptions using site-specific information would significantly increase the concentration of hazardous substances remaining at the site after cleanup or the uncertainty in the ecological evaluation or the reliability of the cleanup action is such that additional review is necessary to assure long-term protection of human health and the environment.

When evaluating whether human health and the environment are being protected, the factors the department shall consider include [WAC 173-340-420(4)]:

- (a) The effectiveness of ongoing or completed cleanup actions;
- (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 use;
- (e) Availability and practicability of higher preference technologies; and
- (f) The availability of improved analytical techniques to evaluate compliance with cleanup levels.

The department shall publish a notice of all periodic reviews in the Site Register and provide an opportunity for public comment.

2.0 SUMMARY OF SITE CONDITIONS

2.1 Site History

The Progress Elementary School Site is located in the City of Veradale in Spokane County, Washington. 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 located in a residential neighborhood and is surrounded on all sides by residential housing. Site soils consist of gravely silty to sandy loam. At depth, rock type 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 utilized 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 available as Appendix 6.1 and a Site plan is available as Appendix 6.2.

2.2 Previous Site Investigations and Remedial Actions

In the summer of 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 mg/kg and 20 mg/kg, respectively. Follow-up soil sampling was performed at Progress Elementary to confirm previous data and provide additional delineation of 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.

In 2007, a geotextile fabric, clean topsoil, and vegetative or landscape cover was placed over non-impermeable surfaces (building footprint, concrete sidewalks, and blacktop) at the Progress Elementary school portion of the Site and a restrictive covenant was placed on the property. Ecology issued a no further action determination for the Site in February 2009.

2.3 Cleanup Levels and Point of Compliance

WAC 173-340-704 states that 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.

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 MTCA Method A cleanup level for arsenic is 20 mg/kg and the MTCA Method A cleanup level for lead is 250 mg/kg.

For soil, the point of compliance is the area where the soil cleanup levels must be attained. For this Site, the point of compliance is established as soils throughout the Site.

2.4 Environmental Covenant

It was determined that institutional controls were necessary for the Site to be eligible for a NFA determination due to the presence of capped contamination. Institutional controls serve to prevent property uses and activities that might expose contaminated soils, and to notify future property owners of residual contamination. Institutional controls were implemented in the form of an environmental covenant, which was recorded for the Site in 2008. The covenant imposes the following conditions:

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 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.

A copy of the restrictive covenant for the Site is available as Appendix 6.3.

3.0 PERIODIC REVIEW

3.1 Effectiveness of completed cleanup actions

3.1.1 Direct Soil Contact

A Site visit was conducted on July 13, 2017. The Site remains occupied by the Progress 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 the baseball field where there is concentrated use in small areas along the base path. 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 available as Appendix 6.4.

3.1.2 Institutional Controls

The environmental covenant for the Site was recorded and remains effective. There is no evidence that a new instrument has been recorded which limits the applicability or effectiveness of the covenant. The covenant prohibits activities that will result in the release of contaminants contained as part of the cleanup without Ecology's approval, and prohibit any use of the property that is inconsistent with the covenant. The covenant serve to protect the long term integrity of the surface cover by restricting property uses.

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

There is no new pertinent scientific information for the contaminants related to the Site.

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

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

3.4 Current and projected Site use

The Site is currently used as a public school facility. There have been no changes in current or projected future Site or resource uses.

3.5 Availability and practicability of higher preference technologies

The remedy implemented included containment of hazardous materials, and it continues to be protective of human health and the environment. While higher preference cleanup technologies may be available, they are still not practicable at this Site.

3.6 Availability of improved analytical techniques to evaluate compliance with cleanup levels

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

4.0 CONCLUSIONS

- The current conditions at this Site appear to be protective of human health and the environment.
- The environmental covenant for the property is in place and will be effective in protecting public health and the environment from exposure to hazardous substances and protecting the integrity of the cleanup action.
- Soil cleanup levels have not been met at the Site; however, the cleanup action for the Property 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.

Based on this periodic review, the Department of Ecology has determined that the requirements of the environmental covenant are being followed. No additional remedial actions are required at the Site. It is the School District's responsibility to continue to inspect and maintain the remedial action to ensure that the integrity of the cap is maintained.

4.1 Next Review

The next review for the Site will be scheduled five years from the date of this periodic review. In the event that additional cleanup actions or institutional controls are required, the next periodic review will be scheduled five years from the completion of those activities.

5.0 REFERENCES

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

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

Central Valley School District. *Environmental Covenant*. August 1, 2008.

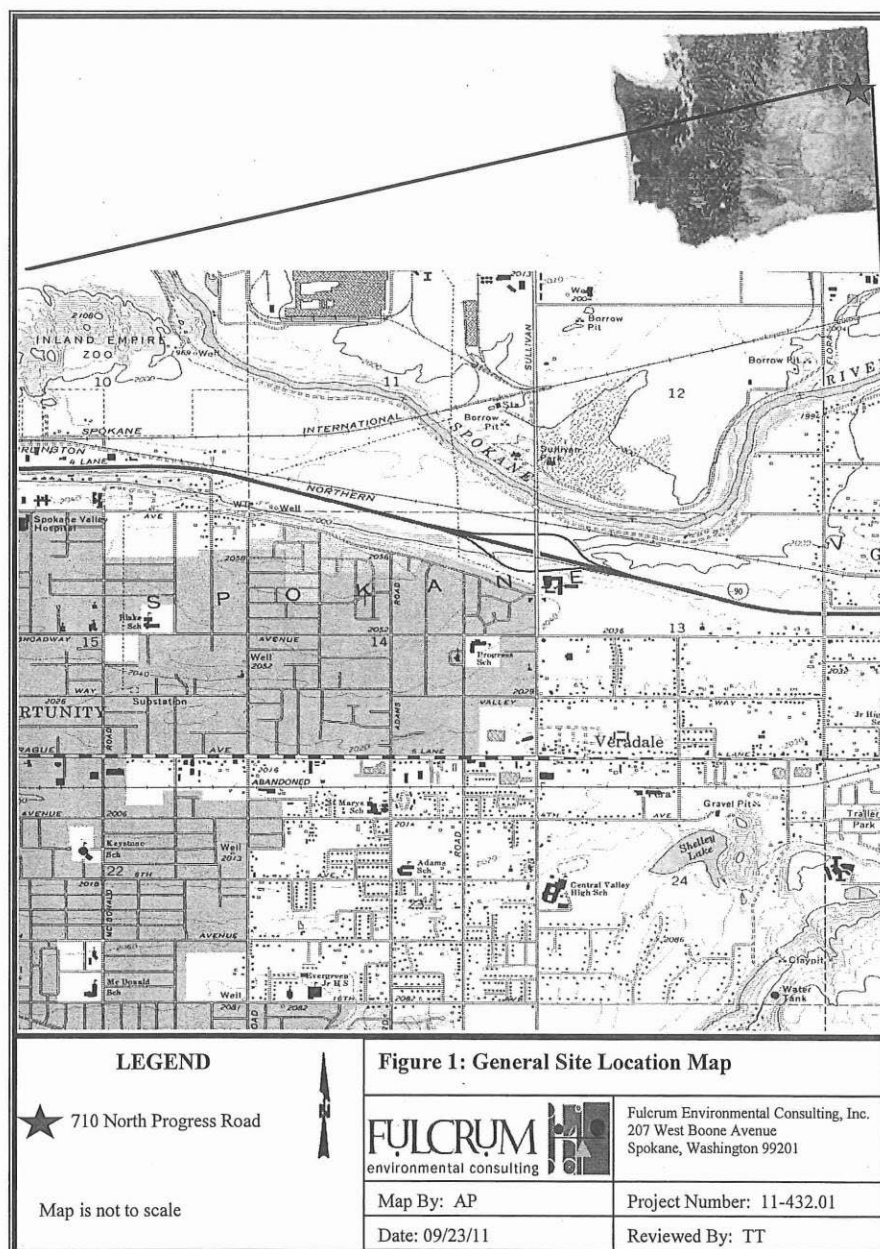
Ecology. *VCP Review*. December 6, 2011.

Ecology. *Further Action Determination Letter*. December 7, 2011.

Ecology. *Site Visit*. July 13, 2017.

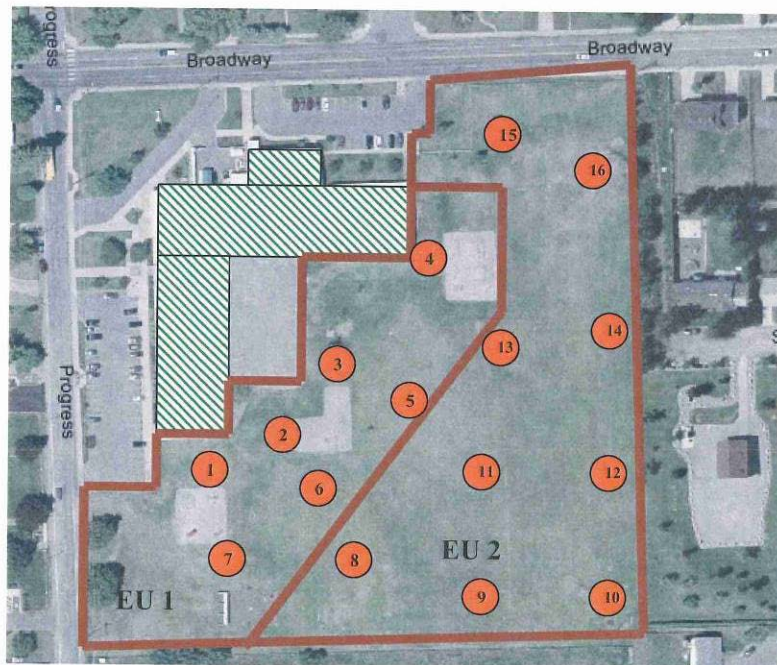
6.0 APPENDICES

6.1 Vicinity Map



6.2 Site Map

Sample locations:



Map Legend



Buildings



Sample Location



Exposure Units

Sample numbers explanation:

CV = Central Valley School District; 06 Progress Elementary School; 01(02, 03, etc.) = sample number; A, B, = soil depth (A= 0-6", B = 12-18"); D = duplicate sample

6.3 Environmental Covenant

5703505 Page 2 of 6 08/01/2008 09:40:52 AM

Environmental Covenant

Grantor: Central Valley School District
Grantee: State of Washington, Department of Ecology
Legal: 9.27 acres located south of Broadway Avenue and east of Progress Road
Tax Parcel Nos.: 45144.0317 and 45144.1031

Grantor, Central Valley School District, hereby binds Grantor, its successors and assigns to the land use restrictions identified herein and grants such other rights under this environmental covenant (hereafter "Covenant") made this 25th day of January, 2008 in favor of the State of Washington Department of Ecology (Ecology). Ecology shall have full right of enforcement of the rights conveyed under this Covenant pursuant to the Model Toxics Control Act, RCW 70.105D.030(1)(g), and the Uniform Environmental Covenants Act, 2007 Wash. Laws ch. 104, sec. 12.

This Declaration of Covenant is made pursuant to RCW 70.105D.030(1)(f) and (g) and WAC 173-340-440 by Central Valley School District, its successors and assigns, and the State of Washington Department of Ecology, its successors and assigns (hereafter "Ecology").

A remedial action (hereafter "Remedial Action") occurred at the property that is the subject of this Covenant. The Remedial Action conducted at the property is described in the following document[s]:

Interim Remedial Action Work Plan, May 2007.

These documents are on file at Ecology's Eastern Regional Office.

This Covenant is required because the Remedial Action resulted in residual concentrations of lead and arsenic which exceed the Model Toxics Control Act Method A Cleanup Level(s) for soil established under WAC 173-340-740.

The undersigned, Central Valley School District, is the fee owner of real property (hereafter "Property") in the County of Spokane, State of Washington, that is subject to this Covenant. The Property is legally described in attachment A of this covenant and made part hereof by reference.

Central Valley School District makes the following declaration as to limitations, restrictions, and uses to which the Property may be put and specifies that such declarations shall constitute covenants to run with the land, as provided by law and shall be binding on all

5703505 Page 3 of 6 08/01/2008 09:40:52 AM

parties and all persons claiming under them, including all current and future owners of any portion of or interest in the Property (hereafter "Owner").

Section 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.

Section 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.

Section 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.

Section 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.

Section 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.

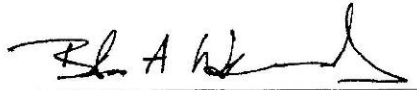
5703505 Page 4 of 6 08/01/2008 09:40:52 AM

Section 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.

Section 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.

Section 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.

Central Valley School District

A handwritten signature in black ink, appearing to read 'Bradley A. Wayland', is written over a horizontal line.

Bradley A. Wayland
Director, Facilities and Operations

Dated: July 30, 2008

5703505 Page 5 of 6 08/01/2008 09:40:52 AM

STATE OF Washington
COUNTY OF Spokane

On this 30th day of July, 2008, I certify that Bradley A. Wayland personally appeared before me, acknowledged that he signed this instrument, on oath stated that he was authorized to execute this instrument, and acknowledged it as the Director, Facilities and Operations of Central Valley School District to be the free and voluntary act and deed of such party for the uses and purposes mentioned in the instrument.



Caroline H. McRoberts
Notary Public in and for the State of
Washington, residing at Spokane County
My appointment expires March 1, 2012.

5703505 Page 6 of 6 08/01/2008 09:40:52 AM

Exhibit A
Legal Description for Progress Elementary

Parcel Number	Legal Description
45144.0317	VERA EXC N10FT & EXC W5FT B50
45144.1031	VERA N445.3' of E $\frac{1}{2}$ EXC E35' & N445.3' of E $\frac{1}{5}$ of W $\frac{1}{2}$ of N $\frac{1}{4}$ of W $\frac{4}{5}$ of W $\frac{1}{2}$ of BLK 55

6.4 Photo log

Photo 1: Progress Elementary School Entrance – from the west



Photo 2: Field and Play Equipment - from the west



Photo 3: Border and Fence at South Site Boundary - from the west



Photo 4: Play Equipment and Gravel Cover - from the west

