



Third Periodic Review Walla Walla Farmers Co-op Site

**111 N Ninth Ave, Walla Walla, Walla Walla County
Facility Site ID: 769, Cleanup Site ID: 916**

Toxics Cleanup Program, Eastern Region

Washington State Department of Ecology
Spokane, Washington

December 2024

Document Information

This document is available on the Department of Ecology's [Walla Walla Farmers Co-op cleanup site page](#).¹

Related Information

- Facility Site ID: 769
- Cleanup Site ID: 916

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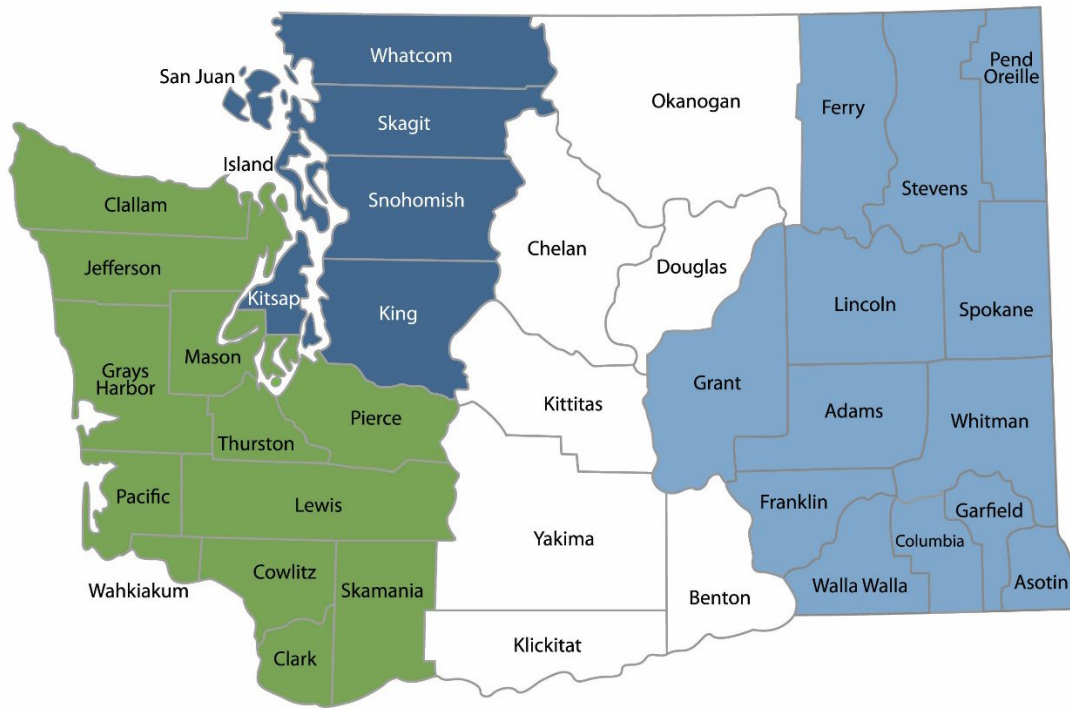
¹ <https://apps.ecology.wa.gov/cleanupsearch/site/916>

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 47600 Olympia, WA 98504	360-407-6000

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Introduction

The Washington Department of Ecology (Ecology) reviewed post-cleanup site conditions and monitoring data to ensure human health and the environment are being protected at the Walla Walla Farmers Co-op 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 third periodic review conducted for this Site. Ecology completed the first periodic review in December 2007, and the second periodic review in November 2013.

Cleanup activities at this Site were completed in 1991. Actions at the Site were triggered by an Ecology Notice of Penalty in 1985. The cleanup action under this notice was initiated prior to full implementation of MTCA. Residual concentrations of pesticides 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

The requirements for investigation and cleanup at the Site were conducted under the regulatory authority at the time the penalty was issued in 1985. Although the action was not taken under MTCA, elements of MTCA can be applied in the determination of impacts to human health and the environment at the Site. Ecology has determined it is appropriate to

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>

complete a periodic review of this site to document the actions that have taken place and to apply the review criteria in WAC 173-340-420(4) to the cleanup action.

Summary of Site Conditions

Site description and history

The Site is near the intersection of N. Eighth Ave. and W. Rose St. (Figure 1). It is currently used as a farm chemical storage, mixing, and handling facility. The southeast part of the property operates as a gas station and convenience store. It is owned by the Walla Walla Farmers Cooperative, an association that operates on a non-profit cooperative basis as an agent for its members. The Co-op's former store and office have been at the present location since 1947, but the warehouse and fertilizer shop were originally owned and operated by Pacific Supply. The Co-op purchased these other facilities in 1963. Past and present operations consist of loading solid or liquid farm chemicals into containers for transport to a client, and then rinsing the transport containers.

In the past, rinsing wheeled pesticide/herbicide and fertilizer sprayers also took place. Initially, rinsing the transport containers and sprayers happened directly on the ground with no rinse water control. In 1966, to manage rinse water a concrete slab was installed, along with drain lines, a concrete septic tank, and a drainfield. In 1978, the drainfield failed. After investigating, it was determined the septic tank had filled with silt and spilled over into the drainfield, which later became plugged. A second septic tank was installed in line with the first, and the silt sludge from the first tank was removed and disposed off-site by the Co-op. The location(s) of disposal is unknown. Additionally, a dry well and new drainfield were constructed to replace the failed one. Between 1979 and 1982, an estimated 4,000 to 5,000 gallons of silt sludge were removed from the septic tanks and disposed off-site. In 1985, an additional 1,000 gallons of silt sludge were removed and disposed off-site. The drainfield was taken out of use and replaced with an evaporation pond in June 1986.

Depth to groundwater at the Site ranges between 7 and 13 feet below ground surface, and flow direction is generally to the west and southwest. Mill Creek borders the north side of the property and flows to the southwest. It is a concrete-lined channel until it reaches the northeast corner of the property, where it becomes unlined. At that point, it is a losing reach of the stream.

Site investigations

A series of investigations and cleanup actions have taken place regarding soil and groundwater contamination at the Site. The following paragraphs chronologically list the separate activities and investigations completed. The reports documenting these investigations can be found at Ecology's Eastern Regional Office in Spokane.

A complaint about illegal sludge dumping began the investigatory work when Ecology collected sludge samples in May 1985. Samples of the sludge were collected and analyzed for pesticides. Sample results confirmed lindane and chlordane were present in the sludge. Ecology issued a Notice of Penalty in 1985 in response to the lack of waste characterization and illegal dumping of sludge. This notice, in part, required the Co-op to conduct soil and groundwater investigations to define the nature and extent of contamination, submit plans for cleanup of contamination, and implement a groundwater and surface water monitoring program.

In response to this notice, the Co-op made plans for an environmental investigation in 1987. The drainlines connecting the wash pad with the old drainfield were removed. The drainfield was then excavated, six monitoring wells were installed to collect groundwater samples, and soil samples were collected from several test pits (Figure 2). The Phase I Hydrogeologic Investigation was completed in November 1987, indicating the presence of 2, 4-dichlorophenoxyacetic acid (2, 4-D) and chlordane in soil, and nitrate and various herbicides in groundwater.

A second phase Hydrogeologic Investigation was completed in May 1989, which involved the installation of a seventh monitoring well and additional groundwater sampling. The samples confirmed the presence of nitrate and various herbicides in groundwater. Additionally, an exposure assessment was completed in September 1989. Ecology performed a Site Hazard Assessment and ranking in August 1990 under the newly established MTCA regulation. The Site was ranked a 1 on a scale of 1–5 with 1 presenting the highest risk because the toxic and chemical characteristics of the contaminants in the groundwater created risks.

Cleanup actions

In September 1990, a Remedial Action Workplan was submitted to and approved by Ecology, under which part of the drainfield excavation took place in the summer of 1991. A Drainfield Area Cleanup Plan was then submitted in December 1991 to address the remaining issues with the drainfield. This plan included re-excavating the drainfield and former drainlines, engineering modifications to the stormwater and wash water handling facilities, and installing a concrete wash pad. Ecology approved the stormwater collection and disposal plan in December 1992. Finally, an asphalt cap was placed over the former drainfield and drainlines in late 1993. It is assumed an unknown amount of contaminated soil may remain below the asphalt cap and the building next to the wash pad.

In October 1991, the Compliance Monitoring Plan (CMP) was implemented, which involved the semiannual collection of groundwater samples for chlordane, simazine, diallate, triallate, pronamide, alachlor, dinoseb, 2,4-D, picloram, DDT/DDD, nitrate, and nitrite. Groundwater quality measurements, such as pH and conductivity, were also taken. Method C cleanup criteria were used because of the industrial nature of the property. Since then, a series of modifications and amendments to the CMP have been implemented, which are documented below. If sampling for a certain contaminant was stopped, it was because it had not been detected in four consecutive groundwater sampling events.

January 1992

- Sampling frequency changed to quarterly

January 1993

- Termination of DDT/DDD sampling in wells 2, 5, and 7
- One final sampling of creek (for a total of 1 year of creek monitoring)
- Termination of sampling in wells 3 and 4
- Termination of sampling for 2,4-D and picloram in all wells
- Lab method changed

March 1993

- Termination of field pH and conductivity measurements
- Termination of sampling for dinoseb in wells 1 and 6
- Termination of Ecology notification for samples being above MTCA cleanup levels

Late 1993

- Monitoring didn't happen during this quarter due to installation of asphalt cap

December 1995

- Termination of sampling for dinoseb in remaining wells

January 1998

- Sampling frequency changed to semiannual
- Termination of sampling of well 4
- Ammonia analysis removed

May 1998

- Termination of sampling from wells 2, 3, and 7
- Conditional point of compliance set at the property boundary (wells 5 and 6)
- Determination was made that MTCA Method B cleanup levels apply for monitoring

September 2000

- Termination of sampling for nitrite, diallate, simazine, pronamide, triallate, alachlor
- One-time sampling of wells 2 and 7 for chlordane and nitrate

May 2001

- Lab analysis changed from technical chlordane to alpha-gamma chlordane

March 2006

- Sampling frequency changed from semi-annual to annual (fall)
- Groundwater levels measured only annually

November 2006

- One-time resample of wells 2 and 7

March 2013

- Addition of well 2 back into the sampling plan

February 2016

- Method B cleanup level is confirmed to be 0.25 micrograms per liter based on carcinogenic risk

November 2015

- Nitrate was removed from the sampling protocol since all wells had four consecutive monitoring events below cleanup level

November 2017

- Chlordane was removed from the sampling protocol since four consecutive monitoring events were below cleanup levels; groundwater was determined to be remediated and sampling is no longer performed

In June 2018, the Site was delisted after public review and comment. Since contaminated soil remains on the property and environmental covenants apply, periodic reviews are required every five years. The first review was performed in November 2007, and the second in March 2013. Both concluded that the remedy was performing as expected.

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 C cleanup levels for industrial land use were determined to be appropriate for contaminants at this Site.

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).

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

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 March 5, 1994, 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. Those portions of the Property designated as Areas "A," "B," and "C" in Annex "B" may be used only for Industrial purposes as defined in and allowed under the City of Walla Walla Ordinance No, A3671 (Walla Walla Zone Code), enacted April 10, 1991, as of the date of this Restrictive Environmental Covenant.
2. The Owner of the Property must give written notice to the Washington State Department of Ecology (hereafter "Ecology"), or to a successor agency, of the Owner's intent to convey any interest in the Property. No conveyance of any interest in the Property shall be consummated by the Owner without adequate and complete provision for the continued operation, maintenance, and monitoring of the Ecology approved remedial action.
3. A portion of the Property designated as Area "A" in Annex "B" contains contaminated ground water. No ground water shall be used for any purpose from that portion of the property designated as Area "A" unless such withdrawal is reviewed and approved by Ecology after public notice and comment.
4. A portion of the Property designated as Area "B" in Annex "B" has pesticide contaminated soils. Such Area "B" has a clean soil cover and has been capped by an engineered asphalt pavement. No soils shall be removed or the area otherwise disturbed unless such action is reviewed and approved by Ecology after public notice and comment.
5. A portion of the Property designated as Area "C" in Annex "B" has petroleum contaminated soils. The major portion of Area "C" is presently beneath a shop building constructed on the premises. The contaminated soil shall not be removed or otherwise disturbed in Area "C" unless such action is reviewed and approved by Ecology after public notice and comment.
6. The Owner shall allow Ecology's authorized representatives the right to enter the Property at reasonable times for the purpose of evaluating compliance with the approved remedial actions, to take samples, to monitor remedial activities conducted at the site, and to inspect records which are related to the approved remedial actions.
7. The Owner of the Property and the Owner's assigns and successors in interest have the right at all times under WAC 173-340-440, -740, and -745, as amended or replaced, to

⁸ <https://apps.ecology.wa.gov/cleanupsearch/document/63230>

record an instrument which provides that this Restrictive Environmental Covenant shall no longer limit use of the Property or be of any further force or effect, provided, that any instrument which eliminates the force or effect of this Restrictive Environmental Covenant may be recorded only with the concurrence of Ecology, or a successor agency, which may concur only after public notice and comment.

Periodic Review

Effectiveness of completed cleanup actions

During the Site visit Ecology conducted on December 20, 2023, the remedy appears to be functioning as intended. The concrete cap over the wash pad area and the asphalt cap over the former drainfield provide protection from direct contact with any contaminated soils, and prevent infiltration of surface water through 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 controlled through the use of asphalt and concrete barriers, and institutional controls requiring their maintenance and upkeep.

Institutional controls

Institutional controls in the form of a Covenant were implemented at the Site in 1994. The Covenant remains active and discoverable through the Walla Walla 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 in soil 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. However, state and federal initiatives are in place dealing with persistent

bioaccumulative toxins (PBTs). Chlordane is a PBT. The goals of these initiatives are to reduce the use and availability of these chemicals. The cleanup action at the Site is consistent with these objectives.

Current and projected Site and resource uses

The Site continues to be used as a pesticide storage and handling facility, and gas station. The facility's use of potentially contaminating materials (petroleum fuel, herbicides) is managed and undergoes periodic inspections by Ecology's Underground Storage Tank Program and Hazardous Waste Program. Use has not changed since the cleanup activities occurred. Ecology is not aware of any expected changes in property or resource use. However, with the growth of the community, the Site is now in an area undergoing development. The potential exists for a change in site use. In that case, the Covenant would govern any future development.

Availability and practicability of more permanent remedies

The remedy implemented involved 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

Ecology. *Environmental Covenant*. May 5, 1994.

Ecology. *Second Periodic Review*. March 2013.

Ecology. Site visit. December 20, 2023.

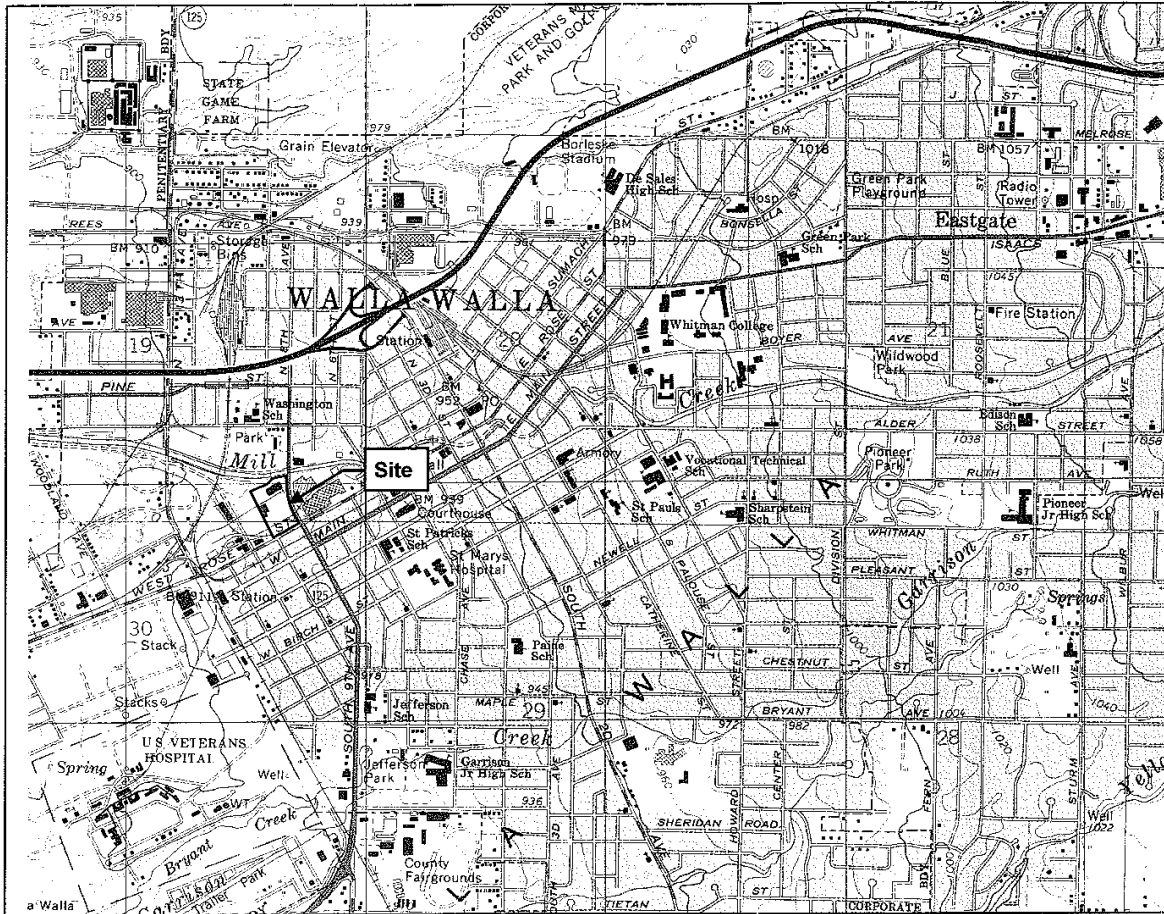
Sweet-Edwards/EMCON, Inc. *Walla Walla Farmers Co-op Hydrogeologic Investigation*. 1987.

Sweet-Edwards/EMCON, Inc. *Walla Walla Farmers Co-op Phase II Hydrogeologic Investigation*. 1989.

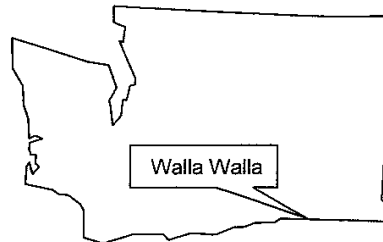
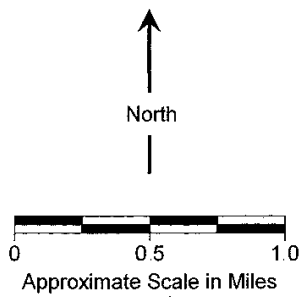
Sweet-Edwards/EMCON, Inc. *Walla Walla Farmers Co-op Remedial Action Workplan*. 1990.

Sweet-Edwards/EMCON, Inc. *Walla Walla Farmers Co-op Drainfield Area Cleanup Plan*. 1991.

Appendix A. Vicinity Map

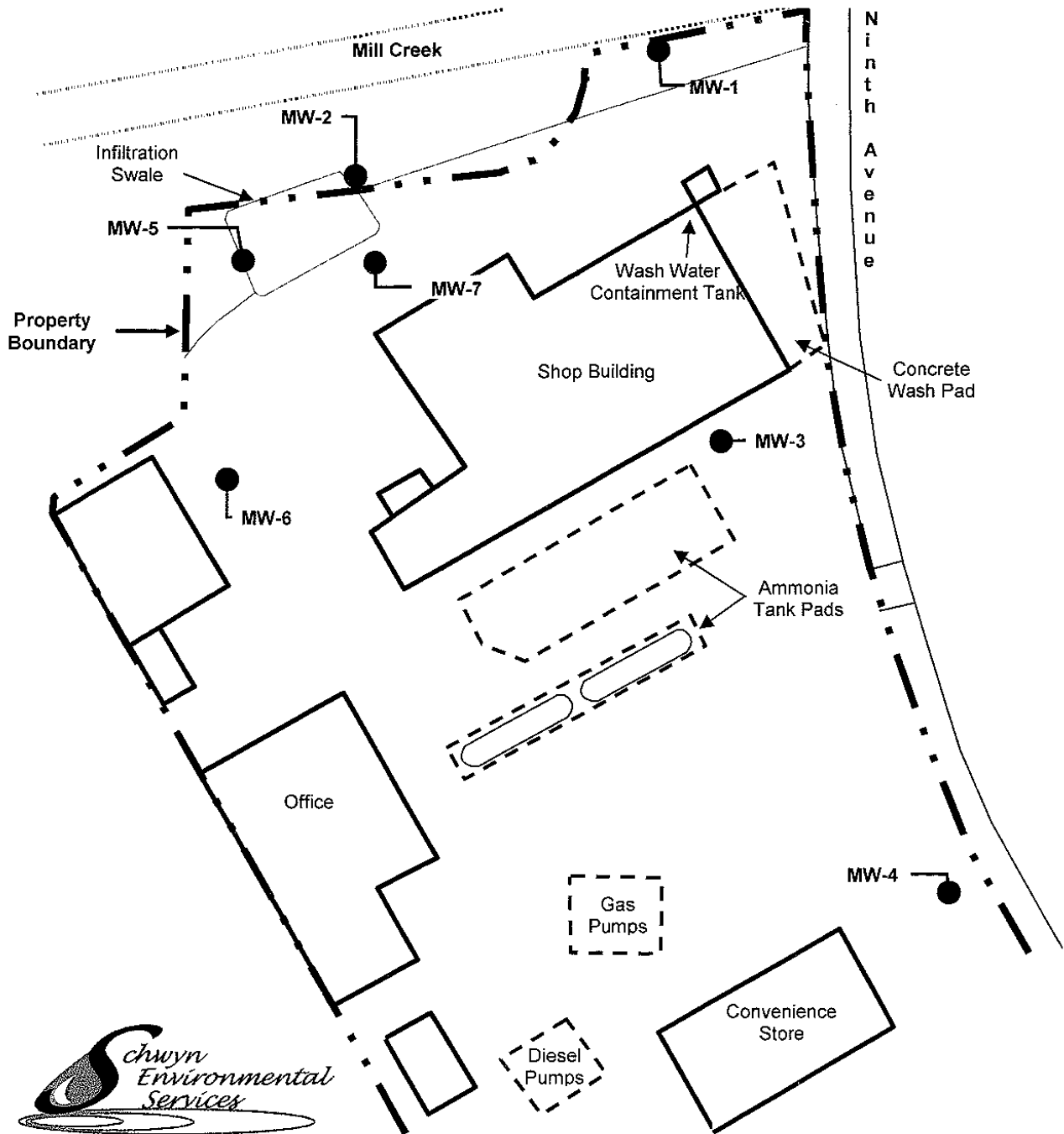


Source: USGS 7 5' Topographic Quad, Walla Walla, WA-OR, 1998.



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Appendix B. Site Plan



Appendix C. Photo Log

Photo 1: View of capped area looking northwest along Mill Creek



Photo 2: View of capped area looking northeast along Mill Creek



Photo 3: View of property looking southwest along Mill Creek



Photo 4: View of capped area and equipment bays looking northeast along Mill Creek

