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DEPARTMENT OF ECOLOGY
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Electronic Copy

January 22, 2021

Don & Jo's Enterprises, LLC
20316 NE 22nd Ave
Ridgefield, WA 98642

Re: Further Action at the following Site:

- **Site Name:** Z Mart
- **Site Address:** 1010 219th St NE, Ridgefield, Clark County, WA 98642
- **Facility/Site ID:** 98615159
- **Cleanup Site ID:** 6986
- **VCP Project ID:** SW1310

Dear Don & Jo's Enterprises, LLC:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Z Mart facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA),[1] chapter 70A.305 Revised Code of Washington (RCW).[2]

Issue Presented and Opinion

Ecology appreciates and recognizes the investigation efforts at the Site to this point. Data collected during the remedial investigation has been useful in evaluating cleanup progress at the Site. Ecology has determined that further remedial action is necessary to clean up contamination at the Site, including:

- Vapor intrusion assessment.
- Re-evaluation of the selected cleanup action.
- Horizontal contaminant delineation.

[1] https://apps.ecology.wa.gov/publications/SummaryPages/9406.html
[2] https://app.leg.wa.gov/RCW/default.aspx?cite=70A.305

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, chapter 70A.305 RCW, and its implementing regulations, Washington Administrative Code (WAC) chapter 173-340[3] (collectively "substantive requirements of MTCA"). The analysis is provided below.

Description of the Site

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Total Petroleum Hydrocarbons as Gasoline Range Organics (TPH-GRO) into the soil and groundwater.
- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) into the soil and groundwater.

A parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

Basis for the Opinion

This opinion is based on the information contained in the documents listed in **Enclosure A**.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. Information on obtaining those records can be found on Ecology's public records requests web page.[4] Some site documents may be available on Ecology's Cleanup Site Search web page.[5]

This opinion is void if any of the information contained in those documents is materially false or misleading.

Analysis of the Cleanup

The PES Environmental, Inc.s (PES) July 2, 2018, Cleanup Action Report provides a historical account of all investigation and cleanup efforts at the Site. In brief summary, a release of petroleum products to soil and groundwater was discovered during a pipe and pump replacement. Investigation to determine the nature and extent of contamination began shortly after discovery. Remedial excavations at the Site occurred in 1992, 2006, and 2009. Residual contamination remains in soil and groundwater on Property, along the State Route 502 (SR502) utility corridor, and beneath the northernmost travel lanes of SR502.

[3] https://apps.leg.wa.gov/WAC/default.aspx?cite=173-340
[4] https://ecology.wa.gov/About-us/Accountability-transparency/Public-records-requests
[5] https://apps.ecology.wa.gov/gsp/Sitepage.aspx?csid=6986

Data collected between 2002 and 2007 indicates contamination did not fully cross beneath SR502. A No Further Action determination and site closure with institutional controls supported by an Environmental Covenant was requested.

Ecology has concluded that **further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. Characterization of the Site.

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action.

a. Vapor Intrusion Assessment

Don and Jo's Drive-In Building

In PES's July 8, 2020, Supplemental Investigation Summary and Response to Ecology Comment letter (Response to Comments letter), PES proposed that the vapor intrusion pathway is incomplete to the Don and Jo drive-in building (Drive-In building) based on groundwater data from monitoring well MW-12.[6]

PES provides that benzene is not observed in groundwater at the Site and should not be considered a potential vapor intrusion constituent. Groundwater collected from MW-12, approximately 20 feet away from the Drive-In building, indicated TPH-GRO detected below the MTCA Method A screening level and no detections of benzene.

Monitoring well MW-06 lies approximately 35 feet from the Drive-In building. Groundwater collected from MW-06 indicated concentrations of TPH-GRO above Method A recently and historically. Benzene has only been observed in MW-06 once, and the detection was below the MTCA Method A screening level, but exceeded the MTCA Method B cancer screening level of 2.4 micrograms per liter (µg/L).

Benzene was detected in soil at concentrations above the MTCA Method A screening level near the Drive-In building. The following table describes soil sample locations, approximate distance between the sample location and the Drive-In building, and the depth of sample collection:

Sample ID	Benzene (mg/kg)	Approximate distance (feet)	Sample Depth (feet bgs[7])
ZM-A3	0.61	38	7
ZM-C/D7	0.78	33	8
ZM-B/C5.5	1.78	28	7
ZM-A4.5	<0.03	35	8

[6] PES, *Supplemental Investigation Summary and Response to Ecology Comments*, July 8, 2020. Vapor Intrusion.
[7] bgs = below ground surface

These samples are within or just outside of a 30 foot lateral inclusion zone for the Drive-In building. Concentrations of petroleum and petroleum constituents above the MTCA Method A screening level within the inclusion zone and within 15 feet below ground surface (bgs) typically requires vapor intrusion assessment.

It still needs to be demonstrated that dissolved phase contaminants don't extend into the 30 foot inclusion rule provided in Ecology's Implementation Memo 14.[8] With benzene MTCA Method A screening level exceedances in soil near MW-12, and TPH-GRO concentrations in groundwater exceeding MTCA Method A at MW-06; Ecology recommends evaluating the Drive-in building for potential vapor intrusion.

Z Mart Building

Similar to the Drive-In building, soil samples collected within 30 linear feet of the building exceed MTCA Method A screening levels for TPH-GRO and/or benzene. Monitoring wells MW-03 and MW-13 are located close to the Z Mart building. A distance of approximately 70 feet separates MW-03 and MW-13 along a general west-to-east strike. Unlike the Drive-In building, the Z Mart building is consistently upgradient of the historic source area and contamination appears to be well understood in this area.

Ecology will likely concur that vapor intrusion to the Z Mart building is not a complete pathway provided sufficient groundwater analytical data to evaluate whether remnant soil contamination is adversely impacting groundwater in MW-03 and MW-13.

Private Residence

Groundwater collected from DB-21 indicated TPH-GRO concentrations exceeding the MTCA Method A screening level. PES suggests this detection is anomalous due to a lack of similar detections between the underground storage tank (UST) excavation area and sample location DB-21. Ecology understands PES' rationale; however, further investigation in this area to confirm or refute the detection is necessary. Additional groundwater or soil gas sampling data may be appropriate to inform additional investigation or eliminate the area as a potential petroleum vapor intrusion source.

Comments on Vapor Intrusion

Ecology has developed numerous guidance documents on petroleum vapor intrusion. Ecology is providing the following information as technical guidance to help ensure data collected will achieve the requirements of MTCA.

Ecology recommends evaluation of petroleum vapor intrusion to the Drive-In building and at least one outdoor ambient air sample collected upwind of the buildings. Ensure sampling occurs when building use is minimized and doors and windows can remain shut for the duration of the sample period.

[8] https://apps.ecology.wa.gov/publications/documents/1609046.pdf

For the most accurate results, vapor/air sampling should occur when indoor heating is on, and when advective vapor transport is expected. Winter months, when indoor heating is occurring and outdoor temperatures are low, provide ideal conditions for monitoring for vapor intrusion. When sampling is occurring, additional ambient Site information should be collected. Ambient Site conditions that may be useful when evaluating vapor intrusion include:

- Indoor and outdoor temperature at the beginning and end of the sample collection period.
- Barometric pressure at the beginning and end of the sample collection period.
- Site weather information preceding and during the sample collection period.
- Operational status of building heating, ventilation, and/or air conditioning systems during the sample collection period.

Air sampling should be conducted using a commercial or residential scenario, as appropriate. If a commercial scenario is used, then an environmental covenant will be needed to limit future Site use to commercial, non-residential scenarios.

Samples should be analyzed and reported using EPA Method TO-15. EPA Method TO 17 may also be acceptable if laboratory detection limits are greater than appropriate cleanup levels. Based upon MTCA requirements, air compliance data should be reported as concentrations with the units of micrograms per cubic meter ($\mu g/m^3$), and compared to proposed cleanup levels.

Air quality compliance samples for this Site should be analyzed by a laboratory accredited in Washington State for the aforementioned analytical methods, and analyzed for the following hazardous substances:

1. Petroleum Equivalent carbon fractions:
    - EC5-8 (aliphatics).
    - EC9-12 (aliphatics).
    - EC19-10 (aromatics).
2. Petroleum Volatile Organic Compounds:
    - Benzene, toluene, ethylbenzene, and total xylenes.
    - Naphthalenes.

To help you meet MTCA requirements, Ecology's recent implementation memoranda should be used as guidance to plan and conduct air sampling studies at the Site, and to report and interpret air sampling data results.

These memoranda, listed below, provide Ecology's most recent guidance for calculating vapor intrusion screening and cleanup levels, and supersede Ecology's 2009 Draft Guidance for Evaluating Soil Vapor Intrusion in Washington State.[9]

- Ecology's Implementation Memorandum No. 14[10] on the updated process for initially assessing the potential for petroleum vapor intrusion.
- Ecology's Implementation Memorandum No. 18[11] for updated guidance on petroleum vapor intrusion screening and cleanup levels. This guidance should be used to determine whether a Site specific calculated total TPH vapor value is appropriate.
- Ecology's Implementation Memorandum No. 21[12] answers frequently asked questions regarding vapor intrusion and Ecology's 2009 draft vapor intrusion guidance.

b. Failed Remedial Alternative

As discussed in Ecology's 2018 Further Action Opinion Letter and confirmed in PES' Response to Comment Letter, the preferred remedial alternative has failed.[13] The preferred remedial alternative was selected after the 2013 Remedial Investigation and Focused Feasibility Study (RI/FFS). The selected preferred remedial alternative included injection of a compound (ORC) to enhance in situ aerobic biodegradation of the petroleum products in the subsurface.

Ecology understands that the final planned treatment was discontinued due to low confidence that additional injection would provide remedial benefit to the cleanup.[13] In the Response to Comments letter, PES suggests since remedial actions have occurred at the Site post-RI/FFS preparation, the remedial alternatives are no longer representative of Site conditions.[16]

Ecology disagrees, in part, with this assertion. The area of primary concern as described in the Response to Comments Letter is along SR502.[16] This area, generally the north margin of SR502 and the associated utility corridor, is beyond the limits of excavation which likely had little effect on the existing contaminant mass in soil and groundwater in this area. Assuming the effects of Site excavation and ORC injection were limited, the RI/FFS is still likely applicable for this area.

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[9] https://apps.ecology.wa.gov/publications/documents/0909047.pdf
[10].https://apps.ecology.wa.gov/publications/documents/1609046.pdf
[11].https://apps.ecology.wa.gov/publications/documents/1709043.pdf
[12].https://apps.ecology.wa.gov/publications/documents/1809046.pdf
[13] PES, *Supplemental Investigation Summary and Response to Ecology Comments*, July 8, 2020. Table 1, Comment 2.

Ecology suggests reviewing Remedial Alternative 1[14] in the 2013 RI/FFS. Pending additional data collection as requested in this letter, Ecology will likely support Remedial Alternative 1, Monitored Natural Attenuation, as an appropriate cleanup action. Ecology recommends providing the documents and plans discussed in the 2013 RI/FFS for Ecology's concurrence.

If other remedial alternatives are to be considered, an additional feasibility study and disproportionate cost assessment will be required in accordance with WAC 173-340-360. Please see Section 3 of this letter for additional discussion on cleanup actions at the Site.

c. Additional Contaminant Delineation

PES has provided that the Site has been vertically and horizontally delineated.[15] Ecology concurs that soil contamination appears to be limited to a vertical depth of 11 feet bgs demonstrated by samples collected near the source area, areas beyond the UST excavation area, and areas along SR502 utility corridor.

However, Ecology needs additional information regarding the horizontal limits of contamination to the east. PES suggests the lack of groundwater detections exceeding MTCA Method A screening levels is sufficient to empirically demonstrate any undiscovered soil contamination is not a leaching pathway and sufficient to proceed with an environmental covenant. Ecology disagrees with this interpretation of the purpose of an empirical demonstration.

The empirical demonstration does not alleviate the requirement to adequately characterize the extent of a release, particularly the spatial distribution[16] of contaminants in soil which may be useful in designing a proper empirical demonstration for the Site.[17] The spatial extent of soil contamination is necessary to write an accurate and purposeful restrictive covenant instituting the asphalt over contaminated ground as a cap.

The area east of the UST excavation has not been evaluated for soil contamination. Soil samples collected from test pits ZM-K5.5 and ZM-M3 indicate TPH-GRO and benzene contamination in excess of MTCA Method A screening levels. Additionally, UST excavation eastern extent sidewall samples ZM-K4.8, ZM-K/L1.5, and ZM-K/L2.5 indicate TPH-GRO and/or benzene contamination in excess of the MTCA Method A soil screening levels. Considering the periodic easterly groundwater flow component,[18] Ecology believes some contaminant transport towards the east is probable.

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[14] PES, *Remedial Investigation and Focused Feasibility Study*, May 14, 2013. Section 8.5.1.
[15] PES, *Supplemental Investigation Summary and Response to Ecology Comments*, July 8, 2020. Table 1, Comment 7.
[16] WAC173-340-350(7)(B)
[17] Ecology, *Frequently Asked Questions (FAQ's) Regarding Empirical Demonstrations and Related Issues, Implementation Memo 15,* June 21, 2016. Section 1.0.
[18] PES, *Supplemental Investigation Summary and Response to Ecology Comments*, July 8, 2020. Results, Hydrogeology.

For Ecology to determine the Site has been adequately delineated in accordance with MCTA, provide soil analytical data collected in the area east of the UST excavation. Ecology recommends a boring be placed somewhere within the area bounded by MW-3, DB-20, and MW-09, optimally the approximate centroid of this triangle. Samples collected in this area should provide data for all constituents of potential concern: TPH-GRO, BTEX, and total lead.

d. Terrestrial Ecological Evaluation

A Terrestrial Ecological Evaluation (TEE) was completed as part of the 2013 RI/FFS.[19] The simplified TEE was ended based on a pathway analysis and a contaminant analysis. Ecology disagrees with this analysis because the Site does not meet the definition of a commercial property as defined in WAC 173-340-7490(3)(c) as a result of contamination present beneath the right-of-way.

Based on your proposed preferred cleanup alternative, discussed in section 3 of this letter, an exemption based on barriers to exposure[20] will likely be appropriate. Improvement of the remaining uncapped area will be necessary if pursuing the cleanup action proposed. Ecology's acceptance of ending the TEE based on the barrier to exposure exemption requires a proposed completion date for cap installation. An environmental covenant instituting the maintenance of man-made physical barriers at the site would be required.

2. Establishment of Cleanup Standards.

Substance-Specific Standards.

Ecology cannot determine what the points of compliance you established for the Site are and cannot evaluate whether they meet the substantive requirements of MTCA. The Response to Comments letter seems to indicate the points of compliance proposed in the 2013 RI/FFS are no longer applicable given the work conducted in the intervening time.[21] It appears that this cleanup is no longer compared to the calculated MTCA Method B values in lieu of MTCA Method A cleanup levels for soil.[22]

To help Ecology understand the Site cleanup standards, please provide a table for each constituent of concern, cleanup value for each constituent and media type, and respective points of compliance.

If sampled as requested, Ecology recommends that soil gas and vapor cleanup levels be developed in accordance with Implementation Memorandum #18.[23]

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[19] PES, *Remedial Investigation and Focused Feasibility Study*, May 14, 2013. Appendix F.
[20] WASC173-340-7491(1)(b)
[21] PES, *Supplemental Investigation Summary and Response to Ecology Comments*, July 8, 2020. Table 1, Comment 5.
[22] PES, *Supplemental Investigation Summary and Response to Ecology Comments*, July 8, 2020. Table 1, Comment 12.
[23] https://apps.ecology.wa.gov/publications/documents/1709043.pdf

Cleanup Standards: Under MTCA, cleanup standards consist of three primary components; (a) points of compliance,[24] (b) cleanup levels,[25] and (c) applicable state and federal laws.[26]

(a) Points of Compliance. Points of compliance, that you need to propose, are the specific locations at the Site where cleanup levels must be attained. For clarity, Ecology provides the following table of standard points of compliance:

Media	Points of Compliance
Soil-Direct Contact	Based on human exposure via direct contact, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface.[27]
Soil- Protection of Groundwater	Based on the protection of groundwater, the standard point of compliance is throughout the Site.[28]
Soil-Protection of Plants, Animals, and Soil Biota	Based on ecological protection, the standard point of compliance is throughout the Site from ground surface to fifteen feet below the ground surface.[29]
Groundwater	Based on the protection of groundwater quality, the standard point of compliance is throughout the site from the uppermost level of the saturated zone extending vertically to the lowest most depth which could potentially be affected by the site.[30]
Air Quality	Based on the protection of air quality, the point of compliance is indoor and ambient air throughout the Site.[31]

(b) Cleanup Levels. Cleanup levels are the concentrations of a hazardous substances in soil, water, air, or sediment that are determined to be protective of human health and the environment. At this Site, MTCA Method A unrestricted cleanup screening levels appear to have been used to evaluate TPH-GRO and BTEX contamination detected at the Site.

(c) Applicable Laws and Regulations. In addition to establishing minimum requirements for cleanup standards, applicable local, state, and federal laws may also impose certain technical and procedural requirements for performing cleanup actions. These requirements are described in WAC 173-340-710. An online tool[32] is currently available to help you evaluate the local requirements that may be necessary.

All cleanup actions conducted under MTCA shall comply with applicable state and federal laws.[33] The person conducting a cleanup action shall identify all applicable local, state, and federal laws.

[24] WAC 173-340-200 "Point of Compliance."
[25] WAC 173-340-200 "Cleanup level."
[26] WAC 173-340-200 "Applicable state and federal laws," WAC 173-340-700(3)(c)
[27] WAC 173-340-740 (6)(d)
[28] WAC 173-340-747
[29] WAC 173-340-7490(4)(b)
[30] WAC 173-340-720(8)(b)
[31] WAC 173-340-750(6)
[32] https://apps.oria.wa.gov/opas/index.asp
[33] WAC 173-340-710(1)

The department shall make the final interpretation on whether these requirements have been correctly identified and are legally applicable or relevant and appropriate.[34,35]

There are three general groups of applicable local, state, and federal laws that need to be included:

i. **Chemical-Specific:** Examples of chemical-specific laws include promulgated concentrations from another rule that result in adjusting proposed cleanup levels. Method A is inclusive of these laws. For Methods B or C, additional evaluation of chemical-specific applicable state and federal laws is required.

ii. **Action-Specific:** Examples of action-specific laws include requirements for obtaining local permits to excavate and/or dispose of contaminated soil, stormwater construction permits, or the requirement to notify local law enforcement in case human remains are discovered during excavation. All MTCA cleanups require evaluation of action-specific applicable state and federal laws.

iii. **Location-Specific:** Examples of location-specific laws include specific requirements for working near wetlands or archeologically important areas. All MTCA cleanups require evaluation of location-specific applicable state and federal laws.

After you have identified appropriate applicable local, state, and federal laws, report to Ecology the applicable local, state, and federal laws applicable to this cleanup, and how those laws and regulations specifically effect the proposed cleanup.

3. Selection of Cleanup Action.

Ecology has determined that additional remedial investigation is necessary at the Site before selecting a cleanup action.

It is likely Ecology will concur with Remedial Alternative 1 and instituting an environmental covenant to prevent modification of existing structures on Site and prevent access to potentially hazardous soils. Ecology recommends reviewing Procedure 440A: Establishing Environmental Covenants under the Model Toxics Control Act[36] to ensure that the Site will meet the requirements for establishing an environmental covenant.

Ecology assumes that the Property boundaries extend to the centerlines of adjacent rights-of-way on both State Route 502 (Northeast 219th Street) and Northeast 10th Avenue. There may be other rights-of-way included with the Property. This type of information is often contained in a land survey of the Property that includes platting and dedications.

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[34] WAC 173-340-710(2)
[35] Note – MTCA Method A includes ARARs and concentration-based tables (WAC 173-340-700(5)(a)) If MTCA Method A remains in use as proposed Site cleanup levels, identify non-concentration based technical and procedural requirements. If Method B or C cleanup levels are proposed, also include concentration-based requirements.
[36] Washington State Department of Ecology Toxics Cleanup Program, Procedure 440A: Establishing Environmental Covenants under the Model Toxics Control Act, Publication No. 15-09-054, December 22, 2016. https://apps.ecology.wa.gov/publications/SummaryPages/1509054.html

Additional easements on the Property where no further action is proposed may be described in a current title report. All easements will need to be considered when evaluating a draft environmental covenant.

Ecology recommends contacting the Washington State Department of Transportation (WSDOT) and any other easement holders as soon as possible to ensure that subordination of an environmental covenant will be granted. Correspondence should detail whether additional remedial activities can or will be allowed within the easements, similar to what is provided as Appendix D of the 2018 Cleanup Action Report. Presuming access requests to complete remedial activities are denied, a property-specific no further action determination is likely appropriate.

Based on Ecology guidance for property-specific no further action determinations,[37] Ecology needs documentation of your good faith effort to include the property's rights-of-way in a property-specific no further action determination. Ecology guidance suggests obtaining:

- Written documentation from easement holders rejecting any remedial actions necessary under MTCA.
- Documentation that easement holders failed to respond to your written requests to resolve the issues, such as the use of certified mail.
- Documentation of good faith efforts to resolve the issues with easement holders.

In this scenario, the Site would remain on the Confirmed and Suspected Sites List while the Z Mart property would receive a property-specific no further action determination. If WSDOT is willing to subordinate, which you need to confirm, Ecology will determine how to apply the Ecology-WSDOT Memo of Understanding[38] at this Site. Ecology has provided Enclosure B which describes environmental covenant requirements. Ecology hopes this information is helpful when preparing the draft environmental covenant to be included with the next opinion request.

Meeting Request

Ecology does not think a meeting regarding the WSDOT Memo of Understanding is necessary at this time. Utilizing the guidance provided in this letter, complete the remedial investigation, prepare documentation to support Remedial alternative 1 or a new feasibility study, and determine whether an environmental covenant will be granted on easements. Provide requested information with the next opinion request.

[37] Ecology, Guidelines for Property Cleanups under the Voluntary Cleanup Program, Washington State Department of Ecology Toxics Cleanup Program Publication No. 08-09-044, Revised July 2015, Page 23. Available at: https://apps.ecology.wa.gov/publications/SummaryPages/0809044.html.
[38] https://www.wsdot.wa.gov/publications/manuals/fulltext/M31-11/agreements/AgreementToxicsNov2016.pdf

Limitations of the Opinion

1. Opinion Does Not Settle Liability with the State.

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70A.305.040(4).

2. Opinion Does Not Constitute a Determination of Substantial Equivalence.

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination.
See RCW 70A.305.080 and WAC 173-340-545.

3. State is Immune from Liability.

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion.
See RCW 70A.305.170(6).

Contact Information

Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may request another review of your cleanup. Please do not hesitate to request additional services as your cleanup progresses. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our Voluntary Cleanup Program web site.[39] If you have any questions about this opinion, please contact me at (360) 407-6266 or joseph.kasperski@ecy.wa.gov.

Sincerely,

Joe Kasperski, LG
Toxics Cleanup Program
Southwest Regional Office

JKK/tm

Enclosures (2): A – Basis for the Opinion: List of Documents
B – Environmental Covenant Requirements

cc by email: Matt Dahl, PES Environmental, mdahl@pesenv.com
Nicholas Acklam, Ecology, nicholas.acklam@ecy.wa.gov
Ecology Site File

[39] https://www.ecy.wa.gov/vcp

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Enclosure A

Basis for the Opinion

1. PES Environmental, Inc. (PES), *Supplemental Investigation Summary and Response to Ecology Comments*, July 8, 2020.

2. PES*, Cleanup Action Report*, July 2, 2018.

3. Ecology, Letter to Mr. Matthew Dahl; Re: Further Action at the following Site; Site Name: ZMART; Site Address: 1010 219th St. NE, Ridgefield, WA 98642; Facility/Site No.:98615159; Cleanup Site ID No.: 6986; VCP Project No.: SW1310, September 23, 2013.

4. PES, *Remedial Investigation and Focused Feasibility Study*, May 14, 2013.

5. Environmental Partners Inc. (EPI), *Additional Interim Remedial Action and Updated Evaluation of Remedial Alternatives Report*, December 15, 2009.

6. EPI, Letter to Mr. Don and Mrs. Joanne Zumstein; Re: Post-Remedial Ground Water Monitoring Report; May 2008, August 7, 2008.

7. EPI, Letter to Mr. Don and Mrs. Joanne Zumstein; Re: Post-Remedial Ground Water Monitoring Report; March 2008, April 29, 2008.

8. EPI, *Technical Memorandum; Statement of Work and Probable Next Steps (DRAFT)*, February 25, 2008.

9. EPI, Letter to Mr. Don and Mrs. Joanne Zumstein; Re: Post-Remedial Ground Water Monitoring Report; December 2007, February 11, 2008.

10. EPI, Letter to Mr. Don and Mrs. Joanne Zumstein; Re: Post-Remedial Ground Water Monitoring Report; August 2007, November 8, 2007.

11. EPI, Letter to Mr. Don and Mrs. Joanne Zumstein; Re: Post-Remedial Ground Water Monitoring Report; May 2007, October 29, 2007.

12. EPI, Letter to Mr. Don and Mrs. Joanne Zumstein; Re: Post-Remedial Ground Water Monitoring Report; February 2007, April 13, 2007.

13. EPI, *Interim Remedial Action Report*, February 13, 2007.

14. EPI, *Remedial Investigation Report*, November 9, 2005.

15. EPI, Letter to Mr. Lance Benson; Re: Evaluation of Remedial Alternatives; Z-Mart Store; 1010 219th Street; Ridgefield, Washington, July 22, 2004.

16. EPI, Letter to Mr. Lance Benson; Re: Subsurface Investigation Letter Report, April 14, 2004.

17. Delta Environmental Consultants, Inc., (Delta), Letter to Mr. Tod Gold; Subject: Final Letter Report – Phase 2 Site Investigation Report, February 14, 2003.

18. Delta, Letter to Mr. Lance Benson; Subject: Results of Geoprobe Investigation, October 22, 2001.

19. Lambier Professional Group, *LUST Assessment Report*, May 26, 1992.

Enclosure B

Environmental Covenant Requirements

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Environmental Covenant Requirements

An environmental covenant is included in a potential remedial alternative to institute:

- Monitoring the soil cap near Z Mart and in the SR502 right-of-way.
- Monitoring groundwater at the Site.
- Restricting alteration of structures at the Site.
- Implementing a soils management plan should the cap be disturbed or contaminated soil be exposed.

Ecology suggests that you provide a word processing version of the environmental covenant on which Ecology may comment.

Draft Covenant: Provide the environmental covenant in electronic word-processing-compatible format.[1] Ensure that the following information is included with the draft covenant:

1. Ecology recommends you limit the environmental covenant to the affected tax parcel and provide figures which show the extent of contamination on the affected parcel. You could also survey the affected area to show the historical extent of contamination. A survey would be beneficial to show the exact relationship between the historical extent of contaminated soil and any easements.

2. **Plan View Maps and Geologic Cross Sections:** Include delineated concentration (1) isopleth plan view maps and (2) geologic cross sections showing the extents of remaining contamination at the Site. Include the boundaries of the MTCA facility, the affected Properties, and the location of any rights-of-way or easements. Indicate where insufficient data are available to delineate to natural background concentrations. These maps will be used to indicate where contamination remains at the Site after closure. For consistency with other sites in our program, Ecology prefers that data for these maps are provided in units of milligrams per kilogram (mg/kg) for soil.

3. **Title Search:** Provide a complete title search as part of Exhibit A, legal description.

4. **Land Survey:** Provide a land survey of impacted properties and rights-of-way, including platting and dedications.

    a. Ecology recommends you limit the environmental covenant to the affected tax parcel and provide figures which show the extent of contamination on the affected parcel. This would also be the extent of the cap requiring monitoring and maintenance. You could also survey the affected area to show the historical extent of contamination. A survey would be beneficial to show the exact relationship between the historical extent of contaminated soil and any easements.

[1] See the word processing formatted document at https://apps.ecology.wa.gov/publications/SummaryPages/1509054.html.

i. Review the title search and land survey to determine if existing easements include any area of proposed engineered or institutional controls:

1) Develop a plan view map or sketch of the locations of existing easements sufficient for Ecology to concur with your evaluation of whether any easements include the areas of proposed engineered or institutional controls.

2) For each easement that intersects proposed controls (the extent of contaminated media) at the Site, provide either of the following:

a) A signed subordination agreement.

b) Sufficient evaluation of specific easement terms for Ecology to concur that the easement will not impact the integrity of the cleanup.

Ecology recommends contacting easement owners prior to completing a draft environmental covenant. When reviewing easements, Ecology assumes that Property boundaries extend to the centerline of the adjacent rights of way.

5. **Financial Assurance Requirements:** Ecology recommends that you review the financial assurance requirements of WAC 173-340-440 (11) and contact our Financial Assurance Officer Joanna Richards at joanna.richards@ecy.wa.gov or (360) 407-6754 for direction on evaluating financial assurance requirements.[2] Include any needed financial assurance mechanisms and implementation of financial assurances based on the requirements. If financial assurances are determined to be unnecessary, include sufficient explanation for Ecology to concur.

6. **Local Government Notification Requirements:** Please document how the local government notification requirements of WAC 173-340-440(10) are completed. Ecology suggests providing the final draft covenant and enclosure package to the local land use planning authority for review and comment. If comments are provided, update the draft covenant based on comments, and provide Ecology the correspondence, local government comments, and how those comments were addressed. If no response is received, include sufficient information for Ecology to concur that the correct local government agency was notified, the date they were notified, and that comments were sought. At this Site, Ecology believes that the appropriate local land use planning authority is likely Clark County.

7. **Long-Term Groundwater Monitoring and Cap Monitoring Plan:** Ecology requests the opportunity to comment on the word processing version of the proposed long-term groundwater monitoring and cap monitoring plans. The long-term groundwater monitoring plan needs to also include contingency planning, in the event that the remedy is not effective. Elements of the groundwater monitoring plan have been prepared as part of the 2013 Remedial Investigation and Focused Feasibility Study[3]

[2] https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Dangerous-waste-guidance/Dispose-recycle-or-treat/Financial-assurance
[3] PES, *Remedial Investigation and Focused Feasibility Study*, May 14, 2013. Section 8.5.1.

Reporting on the cap condition may be conducted at the same time as long term monitoring, and should be detailed in the monitoring plan. An initial inspection with photographs and description of the cap to be monitored should be included with the plan.

The plan should also include provisions to ensure that all environmental data is provided in accordance with WAC 173-340-840(5) and Ecology Toxics Cleanup Program Policy 840 (Data Submittal Requirements).[4]

8. **Contingency Plan:** A long-term groundwater contingency plan is required. That plan should describe those actions that will be conducted if long-term monitoring results exceed predetermined levels, or if cap maintenance or other maintenance is needed, such as repairing groundwater monitoring wells, or what to do if the cap is damaged.

   The contingency plan may be triggered during regular inspection of the cap and monitoring well integrity, or by exceedances of cleanup levels at a point of compliance during long term monitoring. A simple and adequate contingency plan would include and detail, as applicable, that when specific levels are detected during long-term monitoring, additional confirmation sampling would be performed within 30 days of the initial receipt of results.

   Additional follow-up groundwater sampling would include all required testing for detected hazardous substances and related compounds. The contingency plan should include proposed analytes for contingency sampling in an analytical schedule. Results of performance and confirmation sampling for a contingency plan would be provided to Ecology within 90 days of the laboratory result date if no exceedances of criteria are detected, or within 30 days of the laboratory report result date if exceedances are detected, or for follow-up confirmation sampling.

   If confirmation sampling reveals the continued presence of contaminants above predetermined levels, the contingency plan should include that a work plan to further evaluate conditions beneath the Site would be submitted to Ecology within 60 days of receipt of results of confirmation sampling.

9. **Rights-of-Way:** Confirmation at your Site that no right-of-way will be impacted.

[4] https://fortress.wa.gov/ecy/publications/SummaryPages/1609050.html