



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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January 10, 2018

Mauro Felizia  
Dovex Fruit Company  
34 Samantha Lane  
Wenatchee, WA 98801

Re: No Further Action at the following Site:

Site Name:	Dole Fresh Vegetables
Site Address:	803 Autumn Crest Drive, Wenatchee
Facility/Site No.:	3756
Cleanup Site No.:	12572
VCP Project No.:	CE0421

Dear Mr. Felizia:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Dole Fresh Vegetables facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

#### **Issue Presented and Opinion**

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Is further remedial action necessary to clean up contamination at the Site?

**NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.**

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

#### **Description of the Site**

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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:

- Petroleum hydrocarbons (gasoline and diesel) and associated Volatile Organic Compounds (VOCs): benzene, ethylbenzene, & xylenes into soil.



- Lead and arsenic into soil.
- Petroleum hydrocarbons (gasoline and diesel) and benzene in to groundwater.

**Enclosure A** includes a detailed description and diagram of the Site, as currently known to Ecology.

**Please note:**

The parcel of real property associated with this Site is potentially impacted by area-wide contamination of lead and arsenic in soil.

Areas where apples and pears were historically grown have a higher likelihood of arsenic and lead soil contamination than other areas of the State because of past use of lead arsenate pesticides. Chelan, Spokane, Yakima, and Okanogan counties have a higher likelihood than other counties for elevated levels of lead and arsenic in soil based on the greater numbers of apple and pear trees in production there between 1905 and 1947.

At this time, we have no information that this parcel is actually affected. This opinion does not apply to any contamination associated with area-wide lead and arsenic contamination related to historic pesticide usage. More information regarding area-wide soil contamination is available on Ecology's website (<https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Dirt-Alert-program>).

**Basis for the Opinion**

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This opinion is based on the information contained in the following documents:

- Sage Earth Sciences, Inc., 1993. *Interim Status Report for Closure Site Assessment and Independent Remedial Activities, Birchmount Orchards Facility, Wenatchee, WA.* November 1993.
- ERM\_EnviroClean Northwest, Inc., 1994. *Interim Supplemental Site Characterization/Cleanup Report, Wells & Wade Fruit Company Birchmount Facility, Wenatchee, WA.* July 1994.
- ERM\_EnviroClean Northwest, Inc., 1994. *Groundwater Extraction Pilot Test Services at the Birchmount Orchards Company, Wenatchee, WA.* August 1994.
- ERM\_EnviroClean Northwest, Inc., 1994. *Independent Remedial Action: Soil Bioremediation Cleanup Report, Birchmount Orchard Facility, 3717 Crestview Drive, Wenatchee, WA.* September 1994.

- ERM\_EnviroClean West, Inc., 1994. *Groundwater Remediation Design Document, Wells & Wade Fruit Company, Birchmount Orchards Facility, Wenatchee, WA.* October 1994.
- ERM\_EnviroClean West, Inc., 1995. *Groundwater Remediation System Installation and Preliminary Operational Testing, Birchmount Orchard Facility, Wenatchee, WA.* March 1995.
- ERM\_EnviroClean West, Inc. or ERM-West, Inc., *Groundwater Monitoring Reports, Former Birchmount Orchard Property, Wenatchee, WA.* May 1995, August 1995, March 1996, May 1996, August 1996, March 1997, May 1997, August 1997, November 1997, June 1998, June 2005, February 2014.
- Environmental Resources Management, 2001. *Remedial Action Report: In Situ Chemical Oxidation, Former Birchmount Orchard, Wenatchee, WA.* May 2001.
- ERM Remediation & Construction Management, Inc., 2007. *Test Excavation Investigation Report, Former Birchmount Orchard Facility, Wenatchee, WA.* May 2007.
- ERM-West, Inc., 2007. *Supplemental Site Investigation Report, Former Birchmount Orchard Facility, 3717 Crestview Road, Wenatchee, WA.* September 2007.
- ERM-West, Inc., 2009. *Engineering Design Report and Work Plan, Former Birchmount Orchard Facility, 3717 Crestview Road, Wenatchee, WA.* August 2009.
- ERM-West, Inc., 2011. *Progress Report for Groundwater Remediation Services, Former Birchmount Orchard Facility, Wenatchee, WA.* January 2011.
- ERM-West, Inc., 2012. *Remedial Action Progress Report, Former Birchmount Orchard Facility, Wenatchee, WA.* August 2012.
- ERM-West, Inc., 2014. *Final 2014 Soil Vapor Sampling Report, Former Birchmount Orchard Facility, Wenatchee, WA.* November 2014.
- ERM-West, Inc., 2015. *June 2015 Groundwater Monitoring Report, Former Birchmount Orchard Facility, Wenatchee, WA.* September 2015.

These documents are kept at the Central Regional Office of Ecology (CRO) for review by appointment only. You can make an appointment by contacting the Records Officer at (360) 407-6040 or [recordsofficer@ecy.wa.gov](mailto:recordsofficer@ecy.wa.gov).

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

### **Analysis of the Cleanup**

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Ecology has concluded that **no 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 sufficient to establish cleanup standards and select a cleanup action. The Site is described above and in **Enclosure A**. In 1992, three Underground Storage Tanks (USTs), piping, and dispensers were removed from the Site. A release of both gasoline and diesel fuels was confirmed and about 600 cubic yards (CY) of Petroleum Contaminated Soil (PCS) was excavated. Several soil and groundwater investigations; as well as, sampling during and after interim action activities, have sufficiently characterized the Site.

#### **2. Establishment of cleanup standards.**

##### **a. Cleanup Levels**

**MTCA Method A Soil and Groundwater Cleanup Levels** for unrestricted land uses were selected. The cleanup levels are protective of human health and ecological receptors.

Analyte	Soil Method A Cleanup Level (mg/kg)	Groundwater Method A Cleanup Level (µg/L)
Gasoline-range hydrocarbons	30	800
Diesel-range hydrocarbons	2,000	500
Benzene	0.03	5
Ethylbenzene	6	---
Total Xylenes	9	---
Lead	250	---
Arsenic	20	---

**b. Point of Compliance**

A standard point of compliance (POC) was selected for soil and groundwater.

Soil: The POC is defined as throughout the Site from the ground surface to 15 feet below the ground surface (ft bgs).

Groundwater: The POC is defined as throughout the Site.

**3. Selection of cleanup action.**

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The cleanup action selected meets the following requirements of MTCA as described in WAC 173-340-360:

- a. Meets the cleanup standards.
- b. Complies with applicable state and federal laws.
- c. Protects human health and the environment.
- d. Provides for compliance monitoring to ensure effectiveness.
- e. Provides for a permanent cleanup to the maximum extent practicable.
  - i. In areas where it was determined to not be practicable to restore the Site to cleanup standards, institutional controls were used to protect human health and the environment.
- f. Provides for a reasonable restoration time frame.
- g. Considers public concerns.

**4. Cleanup.**

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site. This determination is dependent on the continued performance and effectiveness of the post-cleanup controls.

The following actions were performed to reduce or eliminate hazardous substances at the Site:

- a. Removal and on-site treatment of petroleum contaminated soil.
- b. Groundwater extraction and treatment.
- c. In situ chemical oxidation injections to decrease contaminant concentrations in groundwater.
- d. Dual-phase extraction to treat petroleum impacts in groundwater and within saturated soils at and below the groundwater table.
- e. Institutional controls were executed to prohibit or limit activities that may result in exposure to hazardous substances remaining at the Site.
  - i. Groundwater use is restricted on Chelan County Assessor tax parcel number 23-20-17-482-240.
  - ii. An environmental covenant was the mechanism used to execute the institutional controls.
  - iii. An additional requirement of the covenant specifies maintaining clear access and protection from damage to the two groundwater monitoring wells at the Site (MW-3 & MW-11).

The active phases of cleanup at the Site succeeded in removing PCS to a depth of about 28 ft bgs; significantly below the 6 and 15 ft bgs required to prevent direct contact exposure to terrestrial/ecological receptors and humans respectively.

Relatively low and stable concentrations of Gasoline-Range Petroleum Hydrocarbons (GRPH), and benzene are still present at concentrations exceeding MTCA Method A groundwater cleanup levels. The concentration exceedances are present in MW-3 & MW-11, recovery well RW-1, and dual phase extraction well DPE-3. It is likely residual contamination is trapped in small pockets in the fine-grained, weathered bedrock near the source of the release and slowly diffusing into groundwater.

Diesel-Range Petroleum Hydrocarbons (DRPH) have not been detected, above MTCA Method A cleanup levels, in groundwater during the last six sampling events. The sampling events occurred non-consecutively between 2011, and 2015.

An arsenic concentration slightly exceeding MTCA Method A cleanup level (5 ug/L) was reported for DPE-3 during the final groundwater monitoring event. Dissolved arsenic was also present in all other wells during the event, but below cleanup levels. It is not known if lead arsenate pesticides were used at the Site, but lead and arsenic are relatively immobile and unlikely to have leached to groundwater. The arsenic detected in groundwater is likely naturally occurring and not considered a contaminant of concern (COC) for groundwater at the Site.

Ecology has determined that a permanent cleanup was attempted to the maximum extent practicable, and institutional controls were used to prevent exposure to the remaining groundwater contamination.

### **Post-Cleanup Controls**

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Post-cleanup controls are remedial actions performed after the cleanup to maintain compliance with cleanup standards. This opinion is dependent on the continued performance and effectiveness of the following:

#### **1. Compliance with institutional controls.**

Institutional controls prohibit or limit activities that may interfere with the integrity of engineered controls or result in exposure to hazardous substances. The following institutional control is necessary at the Site:

- No use or withdrawals of on-Site groundwater other than for remediation or monitoring purposes.

To implement those controls, an Environmental Covenant (Covenant) has been recorded on the following parcel of real property in Chelan County:

- 23-20-17-482-240

Ecology approved the recorded Covenant. A copy of the Covenant is included in **Enclosure B**.

**Please note:** In addition to the institutional control (groundwater use restrictions), the Covenant requires clear access, and protection from damage, to the two groundwater monitoring wells at the Site (MW-3 & MW-11). The wells are anticipated to be sampled by the Ecology during the 5-year review.

### **Periodic Review of Post-Cleanup Conditions**

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Ecology will conduct periodic reviews of post-cleanup conditions at the Site to ensure that they remain protective of human health and the environment. If Ecology determines, based on a periodic review, that further remedial action is necessary at the Site, then Ecology will withdraw this opinion.

### **Listing of the Site**

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Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List (CSCSL) and Leaking Underground Storage Tank (LUST) list.

### **Limitations of the Opinion**

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#### **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 70.105D.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 70.105D.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 70.105D.030(1)(i).



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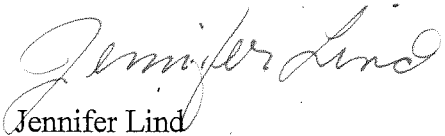
### **Termination of Agreement**

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Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#CE0421).

For more information about the VCP and the cleanup process, please visit our web site: <https://ecology.wa.gov/Spills-Cleanup/Contamination-cleanup/Cleanup-process/Cleanup-options/Voluntary-cleanup-program>. If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at (509) 454-7839 or e-mail at [Jennifer.Lind@ecy.wa.gov](mailto:Jennifer.Lind@ecy.wa.gov).

Sincerely,



Jennifer Lind  
Site Manager  
CRO Toxics Cleanup Program

Enclosures (2):   A – Description and Diagrams of the Site  
                      B– Environmental Covenant for Institutional Controls

cc:   Mr. David Edwards, ERM  
      Mr. Terry Young, Dole Fresh Vegetables  
      Matthew Alexander, ECY