



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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June 10, 2015

John Haakenson  
Director of Airport Operations  
Port of Benton  
3520 Port of Benton Blvd.  
Richland, WA 99354

Donna Parkes  
Sr. Environmental Specialist  
Shannon & Wilson, Inc.  
2705 Saint Andrews Loop, Suite A  
Pasco, WA 99301

**Re: Further Action at the following Site:**

- **Site Name:** Prosser Airport Applicators
- **Site Address:** 221 Nunn Rd, Prosser, WA 99350, Benton County
- **Facility/Site No.:** 7474148
- **Cleanup ID No.:** 2188
- **VCP Project No.:** CE0416

Dear Mr. Haakenson and Ms. Parkes:

On March 19, 2015, you requested an opinion from the Washington State Department of Ecology (Ecology) on the adequacy of the interim action for the Prosser Airport Applicators 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?

**YES. Ecology has determined that 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 in this letter.



### **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 into the soil and groundwater.
- Pesticides/herbicides into the soil and groundwater.

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

Please note 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**

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

1. September 17, 2008. Agreed Order DE6070. Ecology and Port of Benton.
2. April 28, 2010. Updated Final Interim Action Report for Ecology Agreed Order DE 6070, Prosser Aircraft Applicators Site (FS # 7474148). The EMPIRICAL Company.
3. January 23, 2013. Notice of Satisfaction, Agreed Order DE 6070. Ecology.
4. August 13, 2013. Site Hazard Assessment. Ecology.
5. November 21, 2014. Groundwater Monitoring Results, September 2014, Former Marv Bonney Site, Prosser Airport, Prosser, Washington. Shannon & Wilson, Inc.
6. CRO Central Files – file folder for site.

Those documents are kept at the Central Regional Office of Ecology (CRO) for review by appointment only. You can make an appointment by calling the CRO Central Files resource contact at (509) 575-2027.

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, based on the interim action implemented, **further remedial action** will likely be necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

## 1. Characterization of the Site.

Petroleum, pesticide and herbicide contamination is present in both soil and groundwater at the site originating from a pesticide spray operation that operated from 1961 to 2007. An interim action was conducted in 2006 to 2008, which included impacted soil excavation and disposal and application of chemical oxidants. Due to access limitations, contaminated soils were left in place beneath the hangar. Investigations from 2006 to 2014 indicate that groundwater is trending towards clean (below screening levels), with the exception of arsenic. The irrigation ditch located on site is assumed to be an incomplete pathway for surface water contamination. The site meets criteria for an exclusion from terrestrial ecological evaluation. Adequate data is available to determine cleanup levels; however, data gaps include inadequate soil confirmation sampling and groundwater contaminant plume delineation, as well as evaluation of the surface water pathway.

Ecology has determined your characterization of the Site and implementation of an interim action are insufficient to meet MTCA cleanup goals until **additional sampling is performed**. The Site is described above and in **Enclosure A**.

Ecology's determination is based on the following assumptions:

- The interim action has removed or treated all accessible impacted soils to below acceptable cleanup levels;
- Surface water is not impacted;
- The petroleum, pesticide and herbicide plume has cleaned up to below acceptable cleanup levels and
- The arsenic groundwater plume does not extend beyond the property boundary.

## 2. Data Gaps and Recommended Actions.

Adequate data has been provided to design and implement the interim action; however, post-cleanup confirmational monitoring is needed. Based on a review of all site information to date, the following steps are recommended:

- Technical Memo regarding screening levels evaluation and cleanup level (CUL) recommendations
  - Provide summary of exposure pathways.
  - Compile a table of screening levels for all contaminants detected on site.
  - Make recommendations for cleanup levels for further discussion with Ecology.
  - Ecology will establish CULs.
- Supplemental Investigation



- Soil
  - Perform soil confirmation sampling focusing on edges of excavation (area 7) and within to characterize fill (if imported fill data does not exist). Include all Site contaminants of concern (COCs) in soil analysis. The sampling and analysis protocol must ensure that lab reporting levels are less than screening/cleanup levels.
  - Soil beneath the hangar does not necessarily need sampling. Pre-cleanup concentrations of nearby soil samples can be assumed representative of maximum expected concentrations under the building.
  - Confirm that arsenic was not part of the pesticide impacts through soil confirmation sampling.
  - Assumption: soil cleanup is adequate.
- Groundwater
  - Install 2 or more additional monitoring wells downgradient (S & SE) to delineate the groundwater plume. Continue groundwater monitoring for all Site COCs (except those proven to be consistently non-detect or below cleanup levels) to achieve 4 consecutive quarters of clean groundwater.
  - Determine whether improvements are needed to MW-4 and MW-6. These wells are located in depressed areas, are sometimes found in standing water and are speculated to be influenced by contaminants related to stormwater ponding (ex. MCPA). Caps on all site wells were replaced in 2014.
  - Assuming arsenic is not a man-made source contaminant from site activities, explore an “area background” groundwater arsenic concentration calculation per WAC 173-340-709. Area Background requires  $n \geq 20$  samples. To date, there are 16 sampling events at MW-1. MW-1 arsenic concentrations are elevated (5.4 to 8.2 ug/L).
  - Assumption: groundwater impacts do not extend beyond property boundary.
- Surface water
  - Evaluate potential impacts of the groundwater plume on irrigation ditch waters based on plume delineation and groundwater and surface water elevations. For example, during each groundwater sampling event note the presence or absence of ditch water and, if present, measure the ditch water surface elevation for comparison to groundwater elevations.
  - Assumption: The groundwater to surface water pathway is not a complete exposure pathway.

- Path forward to No Further Action (NFA) determination - Provided all assumptions above are verified to be correct through additional investigation or evaluation, this site would likely be eligible for an NFA determination with the following:
  - Soil and groundwater environmental covenant on soil impacts beneath the hangar and the groundwater plume.
  - Groundwater conditional point of compliance (CPOC) (ex. at the plume edge or downgradient property boundary) may be acceptable for groundwater.

### 3. **Establishment of cleanup standards.**

The interim action did not adequately evaluate screening levels. Therefore, prior to the supplemental investigation, Ecology recommends that a technical memorandum be prepared to include a summary of exposure pathways, compilation of screening levels for each COC and complete pathway, and recommendations for cleanup levels.

Soil: The soil screening level compilation should include screening levels for all contaminants of concern detected on site and all complete pathways. The point of compliance for soils is all soils throughout the site. However, Ecology acknowledges that contamination is likely to remain underneath the hangar building due to access limitations.

Groundwater: Groundwater screening level compilation should include screening levels for all contaminants of concern detected on site and all complete pathways. Acceptable options for a groundwater point of compliance (POC) specific to this site include all groundwater throughout the site or a conditional point of compliance at the downgradient property boundary. Technical rationale will need to be presented in order to justify use of a CPOC.

Surface water: This pathway has been assumed to be incomplete. Provided this assumption is verified, no evaluation of surface water criteria is necessary.

### 4. **Selection of cleanup action.**

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

An interim action was conducted in 2006 to 2008, which included impacted soil excavation and disposal and application of chemical oxidants. Due to access limitations, contaminated soils were left in place beneath the hangar. This interim action was selected because it had the potential to achieve MTCA cleanup goals outlined in WAC 173-340-360(2) by permanently removing or breaking down contamination in source soils.



## **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 proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

**3. Opinion is limited to proposed cleanup.**

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Site upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

**4. 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).

## **Contact Information**

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Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). As you conduct your cleanup, please do not hesitate to request additional services. We look forward to working with you.

John Haakenson and Donna Parkes  
June 10, 2015  
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For more information about the VCP and the cleanup process, please visit our web site:  
[www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion,  
please contact me by phone at (509) 454.7833 or e-mail at [lkla461@ecy.wa.gov](mailto:lkla461@ecy.wa.gov).

Sincerely,



Laura Klasner, P.E.  
CRO Toxics Cleanup Program

LMK: je

Enc: A – Description and Diagrams of the Site

cc: Dolores Mitchell, Ecology-HQ

## **Enclosure A**

### **Description and Diagrams of the Site**



# Site Description & History

## **Property Description & Historical/Current Uses**

This site is situated within the larger Prosser Airport boundaries. The site delineated boundaries fall within a single property parcel. An airport hangar, built in the early 1960s, is located on the property and is currently used for storage. The property surrounding the hangar building is surfaced in gravel.

The property has been owned by the Port of Benton from 1961 to present day. Property use prior to 1961 is unknown. From 1961 to 1998, the subject property was leased to multiple pesticide sprayers for storage mixing, and loading of pesticides onto aircraft and the refueling, maintenance and washing thereof. Mr. Marvin Bonny of Aircraft Applicators, Inc. is the most recent of these pesticide businesses and operated from 1969 to 1998. From 1999 to present, the subject property has been used for storage.

Releases of both aviation fuel and pesticides were discovered during investigation and interim action activities conducted in 2006 through 2008.

## **Surrounding Area Description, Zoning, Nearby Wells, Future Use**

The site is surrounded by airport property. The site and surrounding properties to the east, west and north are within city limits. To the south is an irrigation ditch, Nunn Road, and a residential urban growth area. City water is supplied to the site property and surrounding properties. No wells are known to be on or in the immediate vicinity of the site property. Future use of the site property is not expected to change.

## **Site Hydrogeology, COCs, Impacted Media & Exposure Pathways:**

**SOIL:** The lithology of the site consists of a thin fill layer; overlaying coarse deposits of sands, gravels, cobbles and boulders within a silt matrix; overlaying undulating weathered basalt (3-14' to unknown depth). Area well logs indicate the basalt layer may extend to approximately 50 ft bgs and may be underlain by clay. It is unknown whether the basalt layer is fractured. Site COCs include: Petroleum (GRO, BTEX), chlorinated herbicides (dinoseb), organochlorine pesticides (DDD, DDE, DDT, Dieldrin, Heptochlor epoxide, Lindane) and Metals (As, Cr). Soil delineation is adequate for implementing interim action, but inadequate for post-interim action confirmation sampling. Pathways of concern include leaching to groundwater and ingestion & dermal contact for construction workers. **Data Gaps:** Confirmational sampling needed at edges of excavation. Fill not sampled. Some reporting limits were too high. Unknown if arsenic is from pesticide use or from residual contamination causing downgradient changes in redox to mobilize arsenic in groundwater, although the latter scenario is more likely based on timelines. An unknown extent of contamination is likely remaining in soil beneath hangar. CULs finalization.

**GROUNDWATER:** At the site perched shallow groundwater was encountered at 2 to 10 ft bgs, on top of the weathered basalt and seasonally affected by a nearby irrigation ditch. This shallow, perched groundwater has been impacted by site activities. Groundwater levels and flow direction are significantly impacted by irrigation. An open, unlined irrigation ditch runs E-W along the

downgradient, southern property boundary. During the irrigation season, the groundwater table is higher and groundwater flow is toward the southeast. During the non-irrigation season, the groundwater table is lower and groundwater flow is toward the south. Site COCs include: Petroleum (GRO, Benzene), chlorinated herbicides (MCP, MCPA, PCP, Dinoseb) and Metals (As, Pb). The petroleum and chlorinated pesticides and herbicides groundwater plume is fairly well delineated, but no downgradient sentinel wells are available. The arsenic plume is not well delineated. Regarding pathways of concern, the highest beneficial use is drinking water (although drinking water use is unlikely because of shallow and perched conditions). Potential for surface water impacts exist, although are unlikely. **Data Gaps:** MW-4 and MW-6 are located in depressed areas, are sometimes found in standing water and are speculated to be repeatedly influenced by contaminants related to stormwater ponding (ex. MCPA). Downgradient (S & SE) plume delineation. Source of arsenic to groundwater. CULs finalization.

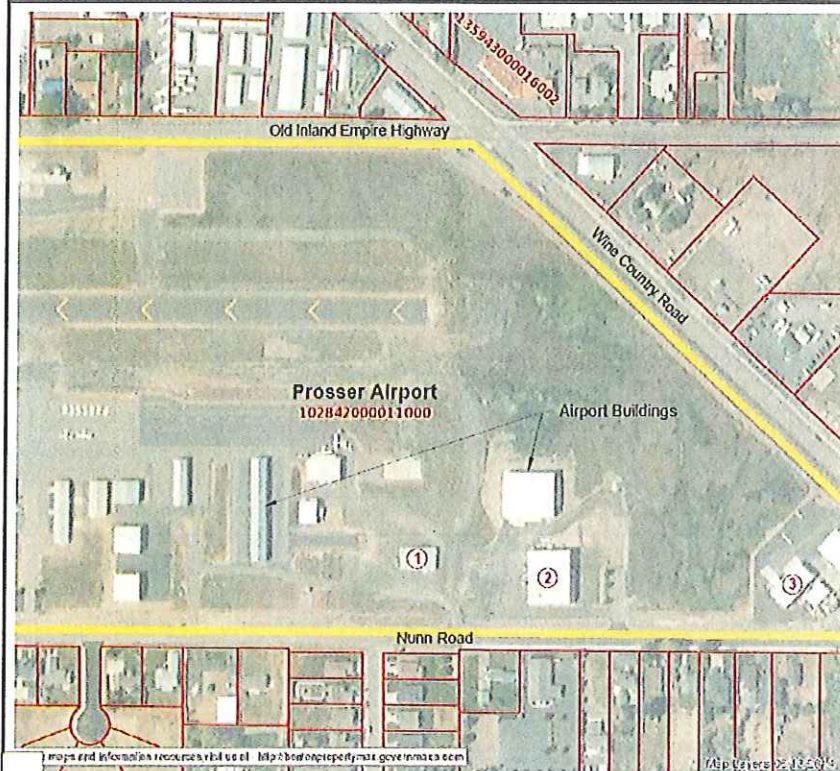
**SURFACE WATER:** An open, unlined irrigation ditch runs along east-west along Nunn Road at the southern property boundary and is used seasonally. It is unlikely that groundwater contamination impacts surface water. It is likely the ditch surface water recharges the aquifer rather than the groundwater contributing to the ditch surface water flow. During irrigation season the vertical component of flow is assumed to be a losing situation, with downward flow of ditch surface water to groundwater. During non-irrigation the ditch is dry or disconnected from groundwater. This ditch has not been sampled. **Data Gaps:** A discussion and evaluation of risk should be included in a supplemental investigation. In addition, see recommendations for ditch water elevation measurements during groundwater monitoring events.

**INDOOR AIR:** Unlikely a complete pathway based on current groundwater concentrations and property use. No further investigation is required.


**TEE:** Meets exclusion criteria. No further evaluation is required.



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- LEGEND**
- ① Subject Site
  - ② Mine Fruit
  - ③ Chukar Cherries

6/26/2014 

DeWitt County, and any other person or entity, in a proceeding before the Board of Supervisors. The Board of Supervisors may, at its discretion, choose to accept or deny the application and may, at its discretion, choose to accept or deny the application and may, at its discretion, choose to accept or deny the application. This notice is given to you for your information and to advise you of your right to be heard. If you wish to be heard, you must file a written statement with the Board of Supervisors no later than the date of the meeting. The Board of Supervisors will consider your statement at the meeting. If you do not file a statement, your statement will not be considered. This notice is given to you for your information and to advise you of your right to be heard. If you wish to be heard, you must file a written statement with the Board of Supervisors no later than the date of the meeting. The Board of Supervisors will consider your statement at the meeting. If you do not file a statement, your statement will not be considered.

DeWitt County, Washington Government

Port of Benton Prosser Airport  
 Former Aircraft Applicators Site  
 Prosser, Washington

**SITE VICINITY MAP**

November 2014 22-1-11228-005

**SHANNON & WILSON, INC.**  
REGULATORY AND ENVIRONMENTAL CONSULTANTS

**FIG. 1**

FIG. 1

