



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

4601 N Monroe Street • Spokane, Washington 99205-1295 • (509)329-3400

August 4, 2016

Mr. John Fisher
Development Manager
Copper River Apartments, LLC
120 West Cataldo Avenue, Suite 100
Spokane, WA 99201

Re: Opinion on Proposed Cleanup of the following Site:

- **Site Name:** 2911 W Fort George Wright Dr
- **Site Address:** 2911 West Fort George Wright Drive, Spokane, WA
- **Facility/Site No.:** 18251
- **VCP Project No.:** EA0320

Dear Mr. Fisher:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of the 2911 W Fort George Wright Dr 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 Revised Code of Washington (RCW).

Issue Presented and Opinion

Upon completion of the proposed cleanup, will further remedial action likely be necessary to clean up contamination at the Site?

YES. Ecology has determined that, upon completion of your proposed cleanup, further remedial action will likely be 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 Washington Administrative Code (WAC) (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



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extent of contamination associated with the following releases:

- Diesel-range petroleum hydrocarbons (DRPH) into the Soil.
- Oil-range petroleum hydrocarbons (ORPH) into the Soil.
- Lead into the Soil.
- Methylene chloride into the Soil.
- Polynuclear aromatic hydrocarbons (PAHs) into the Soil.

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

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

1. Herrera, Preliminary Assessment, George Wright Air Force Base, Spokane, Washington, January 20, 2005.
2. Cascade Earth Sciences, Phase I Environmental Site Assessment, July 29, 2014.
3. Cascade Earth Sciences, Phase II Environmental Site Assessment, May 14, 2015.
4. Earth Solutions NW, LLC, Supplemental Phase II Environmental Site Assessment, March 9, 2016.
5. Earth Solutions NW, LLC, Second Supplemental Phase II Environmental Site Assessment, April 5, 2016.
6. Earth Solutions NW, LLC, Cleanup Action Plan, April 29, 2016.

Those documents are kept in the Central Files of the Eastern Regional Office of Ecology (ERO) for review by appointment only. You can make an appointment by calling (509) 329-3400.

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

Analysis of the Cleanup

Ecology has concluded that, upon completion of your proposed cleanup, **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.

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

- The submitted Cleanup Action Plan (CAP) does not include a discussion of benzo(a)pyrene (a PAH), which was detected at a concentration greater than the MTCA Method A unrestricted land use cleanup level for soil during the Phase II Environmental Site Assessment (ESA) conducted by Cascade Earth Sciences. Information regarding the benzo(a)pyrene exceedance should be added to the CAP to provide a full characterization of the site. Benzo(a)pyrene should be added to the site chemicals of concern (COC) and should be included in the confirmational monitoring plan.
- In addition, a Terrestrial Ecological Evaluation (TEE) of the site must be performed prior to obtaining a no further action (NFA) status. Ecology recommends performing the TEE prior to remedial activities at the site.

2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

- The cleanup levels proposed in the CAP are MTCA Method A unrestricted land use cleanup levels for soil.
- The point of compliance for soil indicated in the CAP is “achieved when concentrations of COCs in soil identified at the site are either remediated to levels below the applicable MTCA Method A cleanup levels or are capped with clean imported soil or isolated with fencing.”
- The proposed cleanup levels and point of compliance are acceptable for the site; however, PAHs should be included as a site COC and should be added to the confirmational monitoring plan.

3. Selection of cleanup action.

Ecology has determined the cleanup action you proposed for the Site does not meet the substantive requirements of MTCA. Ecology recommends you perform additional work at the site, as detailed below.

1. The proposed cleanup action as identified in your CAP includes the following:
 - a. Removal of DRPH-, ORPH-, and lead-impacted soil to a depth of up to two feet below ground surface (or deeper), using a mechanical front-loader, throughout the former outdoor skeet shooting range area where multi-family apartment buildings will be constructed.
 - b. Excavation and removal of methylene chloride-impacted soil identified along the southern end of the New Landfill area using a mechanical backhoe.

- c. Collection of discreet performance soil samples within the excavation areas during remedial activities to assess project cleanup goals.
 - d. Isolation of remaining areas of DRPH-, ORPH-, and lead-impacted soil located along a steep plateau ridge area immediately east of the outdoor skeet shooting range using fencing.
 - e. Capping areas of petroleum- and lead-impacted soil located along the north end of the New Landfill area with up to 18 inches of clean soil prior to redevelopment of the New Landfill area into a pedestrian park.
 - f. Waste soil generated during excavation activities will be stockpiled at the subject property and covered with waterproof membrane prior to waste characterization sampling and transportation off-site for disposal at an approved landfill. Representative samples of waste soil generated during excavation activities will be collected for waste characterization purposes.
2. The proposed cleanup action is insufficient because:
- a. The characterization of the site is incomplete. As noted in Section 1, benzo(a)pyrene is not included as a site COC and the sample exceedance found during the Phase II ESA conducted by Cascade Earth Sciences is not discussed in the CAP.
 - b. DRPH, ORPH, and lead contamination located outside the proposed fenced area (to the north and east) is not addressed in the CAP. Please note, the "site" for purposes of the cleanup encompasses the area where contamination has come to be and does not necessarily follow property boundaries.
3. Ecology recommends the following:
- a. Add information regarding the benzo(a)pyrene exceedance at sample location SNJM-SKEET-02 to the CAP to provide a full characterization of the site.
 - b. Add PAHs to the site COCs.
 - c. Include PAHs in the analytical suite for confirmational soil monitoring throughout the former outdoor skeet shooting range area.
 - d. Perform the following work in the steep plateau ridge area immediately east of the outdoor skeet shooting range:
 - i. Remove and dispose of surficial clay pigeon material.
 - ii. Excavate the areas where samples contained site COCs at concentrations greater than MTCA Method A cleanup levels for unrestricted land use. This includes excavation of the areas north and east of the proposed fenced area where samples indicate the presence of site COCs at concentrations greater than cleanup levels. Ecology also recommends confirmational soil sampling be done at these

locations to show impacted soil has been removed.

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 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

Thank you for choosing to clean up your Property under the Voluntary Cleanup Program (VCP). After you have addressed our concerns, you may resubmit your proposal for our review. 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 web site at <http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm>. If you have any questions about this

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opinion, please contact me by phone at (509) 329-3419 or e-mail at katie.larimer@ecy.wa.gov.

Sincerely,



Katie Larimer
ERO Toxics Cleanup Program

kal:mr

Enclosures

By email

cc: Ted Sykes, Earth Solutions NW
Vicki Cummings, Sisters of the Holy Names

cc via email: Matt Alexander, Ecology

Enclosure A

Description and Diagrams of the Site

Site Description

The site is located at 2911 West Fort George Wright Drive in Spokane, Washington and is listed as Spokane County Parcel Number 25116.0053. The site is currently owned by the Sisters of the Holy Names and was operated as a convent from 1968 until recently. The Inland Group is currently considering purchasing a portion of the property (see Plate 2 in Site Diagram attachment for approximate purchase property boundary) for development of an apartment complex.

The site is part of the Columbia Plateau Physiographic province and is within the West Plains geomorphologic area in Spokane County, Washington. The site is generally underlain by top soil mixed with vegetation debris, gravel, and varying sized rock cobbles at depths ranging from 1.5 to 2.0 feet below ground surface (bgs). Loose-to-slightly-dense silty sand with fine-to-coarse gravel underlies the top soil at depths ranging between 2.0 to 10.0 feet bgs. Groundwater was not encountered during site investigation activities. Groundwater in the site area occurs in an unconfined aquifer composed of unconsolidated sediment, and the groundwater flow direction is estimated to be towards the Spokane River. As groundwater is expected to be 75 to 95 feet below ground surface, Earth Solutions NW (ESNW) does not believe groundwater is contaminated as a result of site activities.

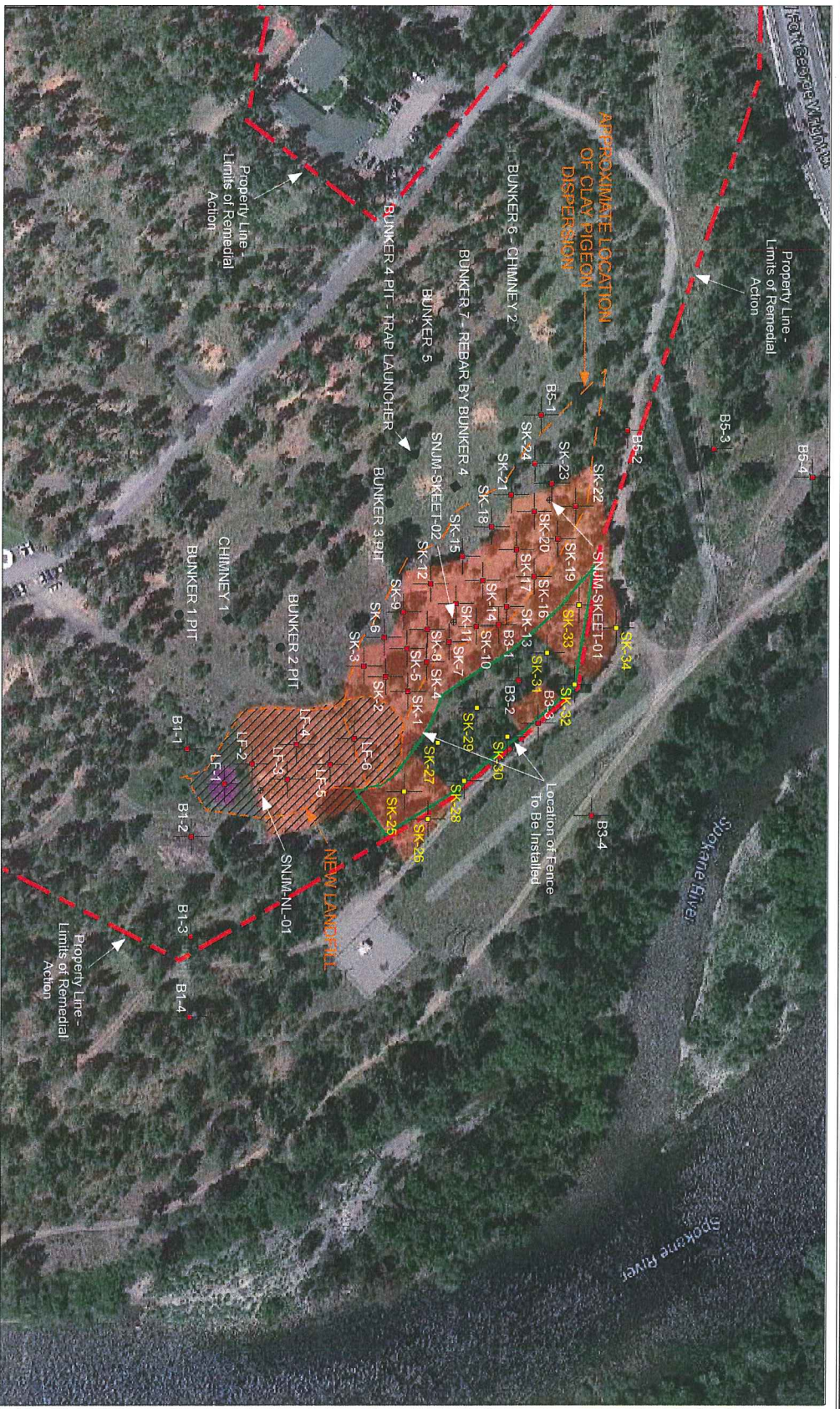
Prior to development as a convent, the site was part of the George Wright Military Base installation. It remained largely undeveloped during Fort Wright's operations; however, Fort Wright allowed the Spokane Gun Club to operate a skeet shooting range on the property from 1919 to 1949. Additionally, two unlined undocumented landfills are located on the site which were mostly used for construction and household debris, according to investigations conducted on the site.

The operation of the skeet shooting range and landfills on the site resulted in soil contamination at concentrations greater than MTCA Method A cleanup levels for unrestricted land use; diesel-range petroleum hydrocarbon (DRPH), oil-range petroleum hydrocarbon (ORPH), lead, and PAH contamination was found in the skeet shooting range area and nearby hillside, and ORPH and methylene chloride contamination was found in the New Landfill area. It is estimated that contamination at the site is fairly shallow as it appears to be from surficial sources. However, clean soil was not reached in all sample locations so the depth of contamination is not known. The horizontal extent of contamination (based on site sampling activities to date) is illustrated in Plate 4 in the Site Diagram attachment.

Potential exposure pathways for humans and other ecological receptors at the site include inhalation of soil and dust particles, incidental ingestion of soil and/or clay pigeon pieces, and dermal contact with soil and/or clay pigeon pieces.

The site description information was compiled from the reports listed in the "Basis for Opinion" section of this letter as well as from Spokane County's SCOUT website and observations made during a site visit with ESNW and the Inland Group on July 11, 2016.

Site Diagram



Reference:
Spokane, Washington
By Google Maps
Dated 2016



SK-1 Approximate Location of ESNW Test Pit, Proj. No. ES-4332, Feb. 2016

SK-25 Approximate Location of ESNW Test Pit, Proj. No. ES-4332, Mar. 2016

Approximate Extent of Petroleum and Lead Impacted Soil

Approximate Extent of Methylene Chloride Impacted Soil

Drawn By	GLS
Checked By	TWS
Date	04/27/2016
Proj. No.	4332
Plate	4



Earth Solutions NW LLC
Geotechnical Engineering, Construction Monitoring and Environmental Sciences

Identified Areas of Soil Contamination Plan
Sisters of the Holy Names Property
2911 West Fort George Wright Drive
Spokane, Washington

