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DEPARTMENT OF ECOLOGY

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October 27, 2021

Crystal Thimsen  
City of Seattle Parks and Recreation  
300 Elliot Ave W  
Seattle, WA 98119  
([crystal.thimsen@seattle.gov](mailto:crystal.thimsen@seattle.gov))

**Re: Opinion pursuant to WAC 173-340-515(5) on Remedial Action for the following Hazardous Waste Site:**

- **Site Name:** Duwamish Waterway Park
- **Site Address:** 7900 10<sup>th</sup> Avenue South, Seattle, Washington 98106
- **Facility/Site No.:** 49919
- **Cleanup Site ID No.:** 15139
- **VCP Project No.:** NW3279

Dear Crystal Thimsen:

The Washington State Department of Ecology (Ecology) received your request for an opinion on *Remedial Investigation (RI) Report Draft V3*, dated August 20, 2021, for the Duwamish Waterway Park facility (Site). The *RI Report Draft V3* was drafted in response to Ecology's request for additional information, dated August 10, 2020 following the submission of the *RI Report Draft V2*, dated June 30, 2020. Additional information regarding the *RI Report Draft V3* was received by Ecology on October 8, 2021. Together, this information documents the RI and interim actions that were concurrent with renovation conducted by the City of Seattle Parks and Recreation for the Site from July 15, 2020 through October 8, 2021. This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), [Chapter 70A.305 RCW](#).

#### **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:

- Total PCB aroclors; antimony; arsenic; copper; lead; mercury; selenium; silver; zinc; cadmium, total carcinogenic Polycyclic Aromatic Hydrocarbons (cPAHs); bis(2-ethylhexyl) phthalate; butyl benzyl phthalate; diethyl phthalate; dimethyl phthalate; and pentachlorophenol into the soil.
- Suspected Contaminants of Concern (COCs) noted above in groundwater.
- Suspected COCs noted above in surface water.
- Arsenic and lead in sediment, and suspected COCs noted above in sediment.

**Enclosure A** includes diagrams of the Site, as currently known to Ecology.

Please note the parcels of real property associated with this Site are also located within the projected boundaries of the Asarco Tacoma Smelter Plume facility (#89267963; [Dirt Alert](#)). At this time, we have no information that those parcels are actually affected. This opinion does not apply to any contamination associated with the Asarco Tacoma Smelter Plume facility.

### **Basis for the Opinion**

This opinion is based on the information contained in the documents listed in **Enclosure B**. In addition, communications during meetings and via email contributed to Ecology's understanding of site conditions. A number of these documents are accessible in electronic form from the [Site web page](#)<sup>[1]</sup>. The complete records are kept in the Central Files of the Northwest Regional Office of Ecology (NWRO) for review by appointment only. Visit our [Public Records Request page](#)<sup>[2]</sup> to submit a public records request or get more information about the process. If you require assistance with this process, you may contact the Public Records Officer at [publicrecordsofficer@ecy.wa.gov](mailto:publicrecordsofficer@ecy.wa.gov) or 360-407-6040.

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

### **Analysis and Opinion of Interim Actions**

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The independent interim cleanup actions at this property present unique challenges for a VCP site. Ecology has a number of concerns as described in this opinion letter about potential impacts to human health and the environment related to use of property within this Site as a public park. While access to a green space is important for communities, especially communities of color and low-income communities like this one, great care must be taken when remediating a space open to the all-ages of the public to ensure that there will not be

<sup>[1]</sup> [Duwamish Waterway Park Ecology Site Page](#)

<sup>[2]</sup> <https://ecology.wa.gov/publicrecords>

problematic exposure to contaminated materials. Given that this property is used as a park in a highly impacted community, and it is the community's only park that is frequented by people of all ages, and that the nature of a park's usage means children are likely to be playing/digging in soil, Ecology would consider this to be a high risk area. A thorough site characterization and selection of appropriate cleanup levels is needed in order to conduct cleanup actions that meet the requirements of MTCA. The reports and information we have received to date are insufficient to determine if there is immediate concern and what further remedial actions need to be taken.

Ecology is also concerned that Parks has already conducted additional remedial actions without informing us or seeking technical advice. As mentioned above, greater care should be taken with remedial actions at this Site because of the planned use of the property. Ecology's expertise in cleanup actions should be used by Parks to ensure that the cleanup approach taken will match the community's use of the property.

## 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 following data gaps are identified to be resolved in order to complete the Site characterization and Remedial Investigation (RI) per MTCA requirements:

### Soil

The lateral and vertical extent of soil contaminant concentrations above MTCA cleanup levels has not been determined. See "Establishment of cleanup standards" below for information regarding soil cleanup levels.

Ecology recognizes that soil characterization for the Site relied on the compilation of various sampling events in 2014, 2019, and 2021, as described in the draft RI report, the RI appendices, and RI additional information (**Enclosure B**). Ecology determined that the information from these investigations was not adequately incorporated into the RI's site characterization summary and subsequent planning of interim actions. See "Selection of cleanup action" below for more information regarding selection of cleanup actions under MTCA. Therefore, further assessment is needed to adequately characterize the areal and vertical distribution and concentrations of all suspected hazardous substances in soil throughout the Site.

### Groundwater

Investigations of site geology and hydrogeology are needed to adequately characterize the areal and vertical distribution and concentrations of hazardous substances in the groundwater, as well as those features that affect the fate and transport of these hazardous substances. Since no groundwater characterization has occurred at the Site, the lateral and vertical extent of groundwater contaminant concentrations above MTCA cleanup levels has not been determined. See “Establishment of cleanup standards” below for information regarding groundwater cleanup levels.

### Surface Water

Investigations are needed to adequately characterize the distribution and concentrations of hazardous substances into the surface waters, as well as features that affect the fate and transport of all suspected hazardous substances.

Ecology appreciates the additional information received via email correspondence (**Enclosure B. Duwamish Waterway Park—NW3279 Email Correspondence Confirmation Sampling Questions**, dated September 29, 2021) that indicates a storm water utility line is present on the Site; however, there is not enough information in this correspondence and the RI to consider surface water and relevant features adequately characterized. Ecology requests these data gaps be resolved by characterizing the extent of contamination to surface waters as they are related to groundwater discharge areas and runoff from soil to the waterway. See “Establishment of cleanup standards” below for information regarding surface water cleanup levels.

### Sediment and Beach Area

The lateral and vertical extent of sediment contaminant concentrations has not been determined. Surface sediment sampling with sufficient sampling density should be included to adequately characterize the areal and vertical distribution and concentrations of contaminants, and to establish points of compliance following protocols outlined in Ecology’s Sediment Cleanup User’s Manual ([SCUM](#)). Additionally, physical properties of sediment that affect toxicity and habitat quality, such as grain size and Total Organic Carbon content, should be determined. See “Establishment of cleanup standards” below for information regarding sediment cleanup levels.

Investigations of sediments to characterize extent of contamination have not been performed adequately. Sediment characterization includes conditions such as areas of sediment erosion and deposition, and delineation of the transition zone between upper portions of the beach area that are considered soil media and lower portions of the beach area that are considered sediment media. While the RI reports sediment

sampling results for lead and arsenic, there is additional sediment sampling data in the Ecology Environmental Information Management database ([EIM](#)) for additional chemicals of concern within the Site boundaries.

Additionally, Ecology does not recognize the use of composite sampling (Incremental Sampling Methodology) for sediment characterization during the RI stage, and recommends following guidance provided in the [SCUM](#) (see section 4.4.2) for use of discrete sampling methodology. Ecology requests that you resolve these data gaps to adequately characterize sediment conditions and the areal and vertical extent of hazardous substances in sediments.

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

Typically, cleanup standards are initially established during a RI and further refined during a Feasibility Study (FS). The purpose of the FS is then to develop and evaluate cleanup action alternatives to enable a cleanup action to be selected for the site ([WAC 173-340-350](#)). For an RI, establishment of cleanup standards requires specification of cleanup levels, points of compliance, and any additional regulatory requirements. For this Site, points of compliance need to be addressed for all relevant media. Cleanup levels should be determined using Method B; since the Site overlaps the Lower Duwamish Waterway (LDW) Superfund sediment cleanup area, and the Site is not considered industrial in use, neither Method A or Method C are applicable. Ecology recommends using the LDW Preliminary Cleanup Levels (PCULs) workbook, found on [Ecology's Document Repository for the LDW](#), as the basis for the selection of preliminary cleanup levels for all chemicals of concern and all media discussed for point of compliance of the Site. Considering the number of COCs known and suspected at the Site, cleanup levels will likely require adjustment in order to establish the cleanup standards. Ecology requests that future work pertaining to the selection of cleanup standards follow prior Ecology feedback and utilize the LDW PCULs workbook, which incorporates criteria from all pertinent regulations, including MTCA and the Sediment Management Standards.

Site cleanup standards must meet the following criteria:

### Soil

The point of compliance for soil is soil throughout the Site. While the RI discussed points of compliance for soil, Ecology identified spatial and analytical data gaps in characterization of the Site that affect the applicability of the points of compliance selected in the RI.

The RI discusses the selection of cleanup levels for protection of human health and the environment; however, soil cleanup levels for this Site must be protective of other media. Contaminants in soil can leach to groundwater, followed by transport to sediment and surface water in the LDW. Soil cleanup levels for the site must be protective of direct contact, leaching to groundwater, and terrestrial flora and fauna. The lowest cleanup level for each chemical of concern will apply.

A Terrestrial and Ecological Evaluation (TEE) must be completed in accordance with the MTCA regulation and Ecology guidance, to determine if and how the TEE should be included in the soil cleanup levels. Ecology does not grant exclusion from this criteria under the basis described in the RI ([WAC 173-340-7491\(1\)\(c\)](#)). Ecology recognizes the Site represents contiguous area of land greater than 1.5 acres, and requests that future remedial actions determine the basis of selecting whether a simplified vs. site-specific TEE cleanup levels apply for this Site.

#### Groundwater

The standard point of compliance for groundwater is throughout the aquifer and at all depths beneath the Site. All aquifers beneath the Site are considered non-potable under MTCA ([WAC 173-340-720\(2\)\(d\)](#)).

The groundwater can, however, serve as a transport pathway for contaminants to the LDW. Soil concentrations presented in the RI exceed their leaching cleanup values, and Ecology recognizes the transport pathway is considered *potentially* complete, considering the groundwater characterization data gaps presented above. Additionally, Ecology recognizes that sediment and surface water characterization data gaps should be resolved to assess their relationship with groundwater.

#### Surface Water

The RI report should follow [WAC 173-340-730](#) for establishing surface water cleanup standards for the site. The point of compliance for the surface water cleanup levels shall be the point or points at which hazardous substances are released to surface waters. Table 5 of the RI provides soil cleanup levels for arsenic and lead that are protective of surface water via groundwater vadose zone; however, the points of compliance and cleanup level should be established for all chemicals of concern and for all pathways suspected to impact surface water.

### Sediment and Beach Area

The RI report should include the proposed sediment cleanup levels and standards for the Site or sediment cleanup unit defined. The sediment cleanup level and point of compliance should be established for each chemical of concern in sediment, following guidance provided in [SCUM](#) (see chapters 3 and 7). Sediment cleanup levels include the chemical concentration or biological effects level for each chemical and the point of compliance should be for an appropriate spatial scale that represents the exposure scenarios considered.

### **3. Selection of cleanup action**

Ecology has determined a final cleanup action cannot be selected at this time until a FS that includes an appropriate disproportionate cost analysis is conducted. The RI is not the appropriate place to document FS-related evaluations. Under MTCA, the RI and FS must be completed to provide an adequate basis for the selection of remedial actions before the remedial actions are conducted.

### **4. Interim actions**

Ecology appreciates implementation of various soil capping technologies and the excavation and removal of areas of soil concurrent with renovations to the Duwamish Waterway Park facility (see **Enclosure B, Duwamish Waterway Park—NW3279 Remedial Investigation Report Version 3 Additional Information**, October 10, 2021). However, the remedial actions do not meet the substantive requirements of MTCA for independent remedial actions ([WAC 173-340-515](#)). The relationship between interim actions to a MTCA-compliant Site cleanup action cannot be determined until the RI and FS have been completed. Ecology concludes that further remedial action is necessary at the Site to determine the relationship between the interim actions taken to a MTCA-compliant Site cleanup action.

### **Future VCP Opinions and Path Forward to a No Further Action (NFA) Opinion**

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Ecology requested additional information on August 10, 2020 to complete the VCP opinion request for the *RI Draft V2*, dated June 30, 2020. The *RI draft V2* and subsequent information received by Ecology in **Enclosure B** did not successfully resolve the data gaps identified by Ecology to date. Without the additional information requested, Ecology was unable to provide opinions on remedial actions prior to the implementation of the interim actions described in the *RI Draft V3 and the RI Draft V3 Additional Information*, dated August 20, 2021 and October 8, 2021 respectively. Moving forward, Ecology can offer technical assistance and provide opinions on sampling and/or work plans to resolve data gaps, and provide opinions on reports that include all the required components of RI and FS reports under MTCA. Ecology strongly

advises that you continue to work and maintain communication with us, the impacted community, and the Port of Seattle as you plan and conduct remedial actions within the Site.

If you would like to discuss this opinion letter and the next steps in the cleanup process, Ecology is kindly disposed to meet with you as soon as possible.

### **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 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**

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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.



Crystal Thimsen  
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For more information about the VCP and the cleanup process, please visit our [website](#). If you have any questions about this opinion, please contact me by email at [anthony.wenke@ecy.wa.gov](mailto:anthony.wenke@ecy.wa.gov) or by phone at (425) 515-5993.

Sincerely,



Anthony Wenke  
Cleanup Project Manager, Voluntary Cleanup Program  
Toxics Cleanup Program, NWRO

Enclosures (2):   A – Diagrams of the Site  
                          B – Basis for the Opinion: List of Documents

cc:     Roy Kuroiwa, Port of Seattle ([kuroiwa.r@portseattle.org](mailto:kuroiwa.r@portseattle.org))  
       Louise Bardy, Ecology ([louise.bardy@ecy.wa.gov](mailto:louise.bardy@ecy.wa.gov))  
       Sonia Fernandez, Ecology ([sonia.fernandez@ecy.wa.gov](mailto:sonia.fernandez@ecy.wa.gov))

## **Enclosure A**

### **Diagrams of the Site**

# Site Diagrams



## NOTES

- PARK BOUNDARY, INCLUDING SDOT ROW AND PORT OF SEATTLE PARCELS, REPRESENT THE USABLE AREAS OF PARK.
- AERIAL IMAGE 4/4/2021, GOOGLE MAPS.
- AERIAL DOES NOT REPRESENT CURRENT CONDITIONS AT THE PARK. RECENT RENOVATIONS COMPLETED IN 2021.

## LEGEND

- PROPERTY LINE
- WATER SERVICE LINE
- SANITARY SIDE SEWER
- LINEAR DISTRIBUTION TRENCH



APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_



DUWAMISH WATERWAY PARK  
 DUWAMISH WATERWAY  
 PARK FIGURES  
**SITE MAP**

DESIGNED BY	DATE
DRAWN BY	SCALE
PROJECT NO.	FIGURE
DATE	

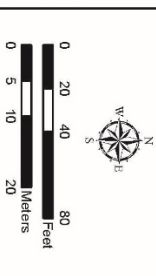


**LEGEND:**

- Duwamish Waterway Park
- King County Parcel

**NOTES:**

1. Background Source: 2009 Puget Sound 30cm Color Imagery; WA State Geoservices on public-imagery.des.wa.gov.



**FIGURE 1  
DUWAMISH WATERWAY PARK  
SITE MAP**



## **Enclosure B**

**Basis for the Opinion:  
List of Documents**

1. Eco Compliance Corporation (Eco Compliance), *Soil Sample Results for Duwamish Waterway Park, Duwamish Waterway Park*, July 20, 2014.
2. Eco Compliance, *Soil Sample Results for Duwamish Waterway Park, Duwamish Waterway Park*, January 28, 2019.
3. Eco Compliance, *Soil Sample Results for Duwamish Waterway Park, Duwamish Waterway Park*, March 1, 2019.
4. City of Seattle Parks and Recreation, *Remedial Investigation Report Draft V2, Duwamish Waterway Park*, June 30, 2020.
5. City of Seattle Parks and Recreation, *Duwamish Waterway Park Terrestrial Ecological Evaluation Form, Duwamish Waterway Park*, July 1, 2020.
6. Washington State Department of Ecology (Ecology), *Duwamish Waterway Park—NW3279 Email Correspondence Preliminary Feedback 1*, August 10, 2020.
7. Ecology, *Duwamish Waterway Park—NW3279 Email Correspondence Preliminary Feedback 3*, October 10, 2020.
8. Ecology, *Duwamish Waterway Park—NW3279 Email Correspondence Preliminary Feedback 3*, October 30, 2020.
9. Ecology, *Duwamish Waterway Park—NW3279 Project Meeting, Progress, Next Steps*, January 27, 2021.
10. Ecology, *Duwamish Waterway Park—NW3279 Project Meeting, Progress, Next Steps*, March 22, 2021.
11. City of Seattle Parks and Recreation, *Remedial Investigation Report Draft V3 Text, Duwamish Waterway Park*, August 20, 2021.
12. City of Seattle Parks and Recreation, *Remedial Investigation Report Draft V3 Appendices, Duwamish Waterway Park*, August 20, 2021.
13. Ecology, *Duwamish Waterway Park—NW3279 Project Meeting, Progress, Next Steps*, September 7, 2021.
14. City of Seattle Parks and Recreation, *Duwamish Waterway Park—NW3279 Email Correspondence Confirmation Sampling Questions*, September 29, 2021.
15. Leidos, *Initial Investigation Summary Report, Duwamish Waterway Park*, September 30, 2021.

16. City of Seattle Parks and Recreation, *Duwamish Waterway Park—NW3279 Email Correspondence RI V3 Request for Additional Information*, October 8, 2021.
17. City of Seattle Parks and Recreation, *Duwamish Waterway Park—NW3279 Remedial Investigation Report Version 3 Additional Information*, October 8, 2021.