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June 8, 2022

Allison Geiselbrecht
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Re: Terminals 5 6 & 7 Uplands Draft Agreed Order and Draft Remedial Investigation Work Plan Comments

- **Site Name:** Terminals 5 6 & 7 Uplands, Port Angeles, Clallam County, WA
- **Site Address:** Marine Drive, Port Angeles, Clallam County, WA
- **Facility/Site No:** 97700
- **Cleanup Site ID No.:** 15440

Dear Allison Geiselbrecht:

Thank you for submitting the draft *Agreed Order for Port of Port Angeles (POPA) Terminal Investigation, Scope of Work and Schedule for POPA Terminal Investigation (AO, SOW),* and the draft *Remedial Investigation Work Plan (RI WP) on August 2, 2021.* The Department of Ecology (Ecology) has the following comments on these documents. We will also provide redline copies of the draft AO, SOW and RI WP showing additional comments within the text.

General Comments

Purpose

In some locations of the AO, SOW, and RI WP text, the purpose of the investigation appears limited to gathering data needed to determine where the Port needs to implement source control measures to protect the adjacent Western Port Angeles Harbor sediment. For the Study Area, this work is also to characterize the nature and extent of contamination and inform future interim and final cleanup actions. The documents acknowledge the presence of cultural resources and property ownership that may limit full characterization of nature and extent.

Remove Interim Action Requirement

The interim action proposed in the August 2, 2021, draft AO is associated with a stormwater project required by Ecology's Water Quality Program under amended Administrative Order Docket #19449. That project is still under review. At this time, it is unclear what that project will consist of and whether it will serve as an interim action for the purpose of remedial action under the Model Toxics Control Act (MTCA). Therefore, remove the requirement for an interim action from the draft AO and SOW. Boilerplate language is included in the draft AO allowing future interim actions under certain circumstances.

Terminals 5 6 & 7 Uplands Study Area

Terminals 5 6 & 7 Uplands is now a listed Site on Ecology's Confirmed and Suspected Contaminated Sites list. The four parcels owned by POPA at Terminals 5 6 & 7 make up the Terminals 5 6 & 7 Uplands Study Area. The RI WP refers to Terminals 5 6 & 7 Uplands Source Control Study Area. Please remove "Source Control" from this title throughout the AO, SOW and RI WP and just refer to the Study Area as Terminals 5 6 & 7 Uplands Study Area. Source control for the Western Port Angeles Harbor Site is still a goal of this investigation, but addressing contamination and eliminating exposure pathways in the uplands are also goals.

Rename RI WP Phases

The RI WP describes two phases—Phase I Interim Action Investigation and Phase II Remedial Investigation. An interim action is no longer required by this agreed order, so the two phases should be renamed. I suggest Phase 1 – Shoreline Investigation, and Phase 2 – Upgradient Investigation, to capture the focus of each phase. Other names may be equally acceptable.

Redlines

Additional draft comments on all the draft documents are provided in redline versions of the documents. Ecology's responses to requested AO boilerplate changes are included in the redlined draft AO provided with these comments.

RI WP General Comments

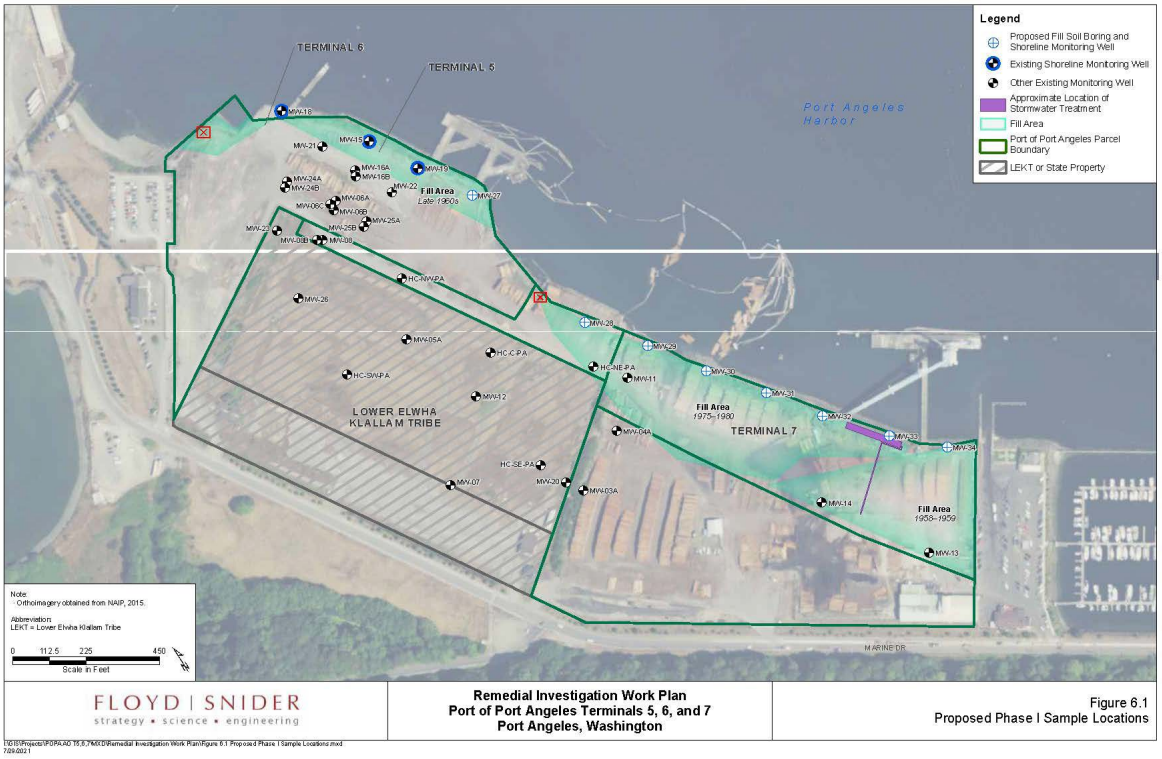
RI WP Title

The RI WP includes a plan for preparing a feasibility study in Section 7.0. Rename the work plan Remedial Investigation/Feasibility Study Work Plan, or remove this section since this is only a remedial investigation work plan.

Additional Shoreline Monitoring Wells

Ecology requests two additional shoreline monitoring network wells to fill data gaps in the network shown by red X's in the figure below. Both of these locations are in known historical fill locations; however, the depth of known fill is less than the depth of the proposed monitoring wells. It is possible the installation of these wells will encounter native soil or sediment below the fill.

Ecology consulted with the Lower Elwha Klallam Tribe (LEKT) and they verbally agreed that the well location between MW-27 and MW-28 would be acceptable considering cultural resources. The location west of Terminal 6 is under consideration by the LEKT. These wells are important for understanding the nature and extent of contamination within the Study Area, to understand source control measures necessary to protect Western Port Angeles Harbor, and to support potential, future, shoreline restoration efforts.



Surface Soil Samples at Monitoring Well Locations

Add surface soil samples at the locations of monitoring well installations in addition to the subsurface samples. These surface soils will already be disturbed by the well installations and this will provide additional information to help us understand the condition of surface soils within the Study Area and along the shoreline.

Sampling of Existing Upgradient Monitoring Wells

Locate, assess, redevelop, and sample existing monitoring wells on Terminal 7 in the area of the potential stormwater conveyance construction project in Phase 1. Location, assessment of the usability of these wells and collection of as many quarterly groundwater samples as possible prior to potential stormwater conveyance construction is essential for gaining all possible information about the nature and extent of contamination.

Ecology encourages adding the location, assessment, redevelopment, and sampling of all existing upgradient monitoring wells in the Study Area to Phase 1. This information will be important for understanding the nature of contamination and conceptual site model knowing that the installation of additional upgradient monitoring wells will be limited due to the high risk of encountering cultural resources. Locating and sampling these wells now will allow collection of sufficient quarters of monitoring data to make timely decisions about the Study Area.

Quarterly Sampling of Monitoring Wells

Following installation of shoreline monitoring wells, begin quarterly groundwater sampling of shoreline wells. Add existing upgradient monitoring wells to quarterly sampling once located and redeveloped. Continue quarterly monitoring until a decision by Ecology that monitoring is no longer necessary. Generally, at least four quarters of sampling data are needed to reach this decision.

Location and assessment of Existing Monitoring Wells

Given the likelihood that additional upgradient wells cannot be installed due to cultural resource concerns, it is important that sufficient time and effort be devoted to the location and assessment of existing groundwater monitoring wells.

Phase 2 Trigger

With the removal of the planned interim action from this RI WP, the timeline should be reconsidered. The current trigger for Phase 2, beginning with the preparation of the Phase 2 RI WP Addendum, is Ecology's approval of the Phase 1 Data Report. Ecology is requesting four quarters of groundwater monitoring data in Phase 1, which extends the length of Phase 1.

Specific Comments – RI WP Main Text

List of Acronyms and Abbreviations:

Delete Study Area defined as Upland Source Control Study Area. The Study Area is defined in the text by the parcel numbers.

Section 1.0 Introduction

This RI WP is intended to fulfill requirements for identification of ongoing upland sources from the Terminals 5 6 & 7 Uplands Study Area. It does not fulfill the requirements for other upland properties. Add text clarifying this RI WP fulfils AO No. DE 9781 requirements for this Study Area only.

Section 1.1

Only soil and groundwater contamination nature and extent are mentioned in this purpose statement. All media, with the exception of sediment should be included. Air is another possible media of concern and the possibility of future vapor intrusion in existing or future structures should be evaluated. Add a statement explaining the Western Port Angeles Harbor cleanup will address any potentially related sediment contamination.

Section 2.1.1 Western Port Angeles Harbor Sediments

The RI WP states that active remedial actions will not occur within 50 feet of the dock structures. The Western Port Angeles Harbor RI/FS states these offsets will be evaluated during engineering design on a structure-by-structure basis and reduced as much as practicable.

Section 2.3.1 Terminals 5 and 6 Upland Area

LEKT requests the use of "Tse-whit-zen village and cemetery cultural site" rather than "Tse-whit-zen" when referencing this significant cultural site.

Section 3.2 Analytical Results Summary

This section should evaluate what data is available and usable today. References to historical non-detect data must acknowledge when historical detection limits were above current detection limits. These non-detect data cannot be used to eliminate chemicals from the list of chemicals of concern or to make conclusions about the presence or absence of chemicals. References to data being consistent with background must also be qualified and compared to current background levels.

Section 4.1.2 Soil

This section should also recognize the direct contact pathway.

The Bank Soil section should be adjusted to also acknowledge direct contact and the potential for surface water quality to be affected by the bank soils. Expand the contaminants of interest for bank soils similar to surface and subsurface soils.

Section 4.3.1 Preliminary Screening Level Development for Groundwater

This section makes a statement that groundwater is considered non-potable due to tidal influence; however, there are no studies showing this within the Study Area. If this statement relies on nearby similar sites, then add references and support for this conclusion.

Under the bullet Protection of Indoor Air, the RI WP states there are no structures currently in the Study Area. There are two structures on parcel 063000190090.

Section 5.4.2 Potential Historical Sources Related to Study Area Operations

The Hog fuel burners subsection should recognize the common historical practices of burial of ash or use of ash as fill that may be a source of dioxins/furans at the Study area.

Section 5.6 Potential Exposure Pathways and Receptors

The bullet for Human Exposure via Direct contact considers the pathway complete only at the ground surface of unpaved portions and in areas along the shoreline that have been landfilled with dredge fill soil due to the cultural resources precluding any ground-penetrating work.

It is not clear whether the archeological site extends throughout the entire Study Area or whether workers would be informed of the potential for contact with contamination if approved under a permit and specific consultation by DAHP. Until an environmental covenant is in place to inform a potential worker of the potential for contamination, this pathway still exists, though the potential for exposure is low.

The bullet for Aquatic Receptor Exposure via Groundwater Discharge to Surface Water should acknowledge bank and surface soil erosion as a possible pathway for contamination to surface water and aquatic receptor exposure.

Section 6.2.1.3 Bank Erodibility Visual Survey

Assessment of bank angles is proposed using existing topographic survey data. Figure 2.1 shows the existing topographic survey data is from 2001-2008. This data appears too old to evaluate current slope stability. A new topographic survey is needed.

Section 6.2.2.1 Groundwater Sampling

Ecology does not accept the proposed evaluation of groundwater sampling in Phase 2 for assessing the presence of an uncontrolled upgradient source of groundwater contamination. It is not clear what this evaluation is aimed at. It appears these bullets are aimed at limiting upgradient investigation to only those sources that are "significant" and defined as "uncontrolled." MTCA allows consideration of a confidence limit approach when considering compliance with certain requirements under WAC 173-340-720(9)(i), but we don't have a basis for limiting consideration to results that are twice the 95% upper confidence limits or 10 times the preliminary screening level.

If a conditional point of compliance at the shoreline is approved in the future, our goal will be to meet the groundwater cleanup levels in the shoreline wells prior to discharging to the harbor. At that stage, statistical analysis may apply when evaluating compliance. At this stage, we are concerned with all results exceeding screening levels.

Section 6.2.2.3 Surface Soil Sampling

Consider adding an assessment of Site paving to Phase 2. The RI WP assumes that soil beneath pavement is not a concern. We need sufficient understanding of the condition, type and thickness of paving throughout the Study Area to understand where and how pavement acts as a barrier to direct contact. Information about how and where pavement acts as a cap and prevents infiltration will inform interim and cleanup action decisions.

Due to the varied history of this Site and the mosaic surface of pavement, a single sample per acre of unpaved ground surface does not appear adequate to characterize surface soils. Include at least two samples per acre.

Section 8.0 Reporting and Schedule

The timeline reflects the removal of the interim action and other changes proposed in the RI WP.

Figure 2.1 Study Area

Figure 2.1 is titled Study Area, but the legend does not include or label the Study Area, and it is not clear that the Study Area includes the four Port of Port Angeles Parcels outlined in green. Please include an outline of the Study Area boundary on the map and include the Study Area boundary in the legend.

Specific Comments – Appendix B SAP/QAP

Section 2.0 Sampling and Analysis Plan

The plan overview involves collecting subsurface and groundwater samples for laboratory analyses at the locations shown on Figure 6.1. Add surface samples, approximately 0-4" deep at these locations also. Surface soil contaminants of interest include dioxins/furans.

Section 2.1 Groundwater Sample Collection and Analysis

> "Attempts will also be made to locate and assess the condition of the other existing wells."

It is not clear how this will be done. Ecology prefers to see all the upgradient wells located, assessed, developed and sampled during Phase 1. At a minimum, the Terminal 7 wells should be located, assessed, developed and sampled during Phase 1. If a future interim action takes place, especially on Terminal 7 properties, it will be important to collect any possible information from these wells prior to construction of the interim action. If possible, these wells should be protected for future use after construction.

Section 2.1.2 Groundwater Sampling Methodology

> "If turbidity of 5 nepholometric turbidity units cannot be achieved during low-flow sampling, samples will be centrifuged at the laboratory to remove turbidity prior to analysis."

Sufficient time and effort should be taken to attempt to reduce turbidity in the field. If turbidity cannot be achieved, the use of field filtering for metals is preferred rather than centrifuging in the laboratory, so that preservation can be completed in the field. Centrifuging in the lab requires transportation of unpreserved samples and potential loss of chemicals of concern.

Filtering will generally be acceptable for naturally occurring inorganic substances where:

1) The well is properly constructed but cannot be sufficiently developed to provide low turbidity samples.

2) Unfiltered samples would not provide a representative measure of groundwater quality due to natural background concentrations.

3) Filtering is performed in the field with all practicable measures taken to avoid exposing the sample to ambient air before filtering (WAC 173-340-720(9)(b).

Section 2.2 Soil Sample collection and Analysis

Add a surface soil sample at the location of monitoring well installations.

Section 2.2.1 Soil Sampling Methodology

It is not clear why bank surface soil samples are taken from 0-6" and other surface soil samples are from 0-3." To compare surface soil concentrations across the Site a consistent use of 0-3" is preferred.

Section 3.1 Bank Erodibility Visual Survey

Field observations for erodibility "bullets" should also include signs of recent erosion, such as undermining, slope failure, or movement of armoring.

Bullet 1: "…oversteepended slopes…" is not defined.

Bullet 3: "Unarmored areas may be subject to erosional forces of the Harbor or sloughing." Areas with partial, deteriorating, or improperly sized armoring may also be subject to erosional forces or sloughing.

Section 4.2 Laboratory Analyses

A high-resolution analytical method must be used for dioxins/furans and Polychlorinated Biphenyl (PCB) congeners to reach appropriate detection limits. The analytical lab proposed is Friedman and Bruya. It does not appear this lab is certified for high-resolution dioxins/furans and PCB analyses. Use a lab certified for high-resolution analysis.

Section 5.2 Data Validation

> "Floyd|Snider will conduct a Level I Compliance Screening on all the analytical data. If dioxin/furans or PCB congeners are detected, a Level I, Tier III Data Quality Review (full validation) will be conducted by EcoChem, Inc., on these data."

Toxics Cleanup Program (TCP) formal cleanup site chemistry data must have minimum data validation levels of EPA4 (Stage 4) for dioxins/furans and PCB congeners and EPA2B (Stage 2B) for all other data.

Table B.2 Analytical Methods, Detection Limits, and Reporting Limits

A number of preliminary screening levels appear lower than reporting limits and or method detection limits. Work with labs to find analytical methods or protocols with sufficiently low reporting or method detection limits.

Table B.3 Data Quality Assurance and Quality Control Criteria

The lab, Friedman & Bruya, indicated on this table does not appear to be certified for HRGC/HRMS methods, such as USEPA Method 1613B, 1668, or 8270E SIM. Please use a certified lab for these analyses.

Appendix D

Lower Elwha Monitoring and Discovery Plan should have updated contacts for the City and Port of Port Angeles.

Next Steps

Please review and address the comments above, the redlined agreed order including the scope of work and schedule, and the redlined RI WP. Let us know if there are any outstanding issues to discuss. If the agreed order edits are acceptable, please inform us of your decision and we will have a final agreed order prepared for signature. Please address the comments on the RI WP and submit a revised, electronic, public review draft (PRD) RI WP for final review.

Upon receiving your agreement with the order and Ecology's approval of the revised RI WP, Ecology will prepare for a 30-day public comment period. Ecology will need four hard copies of the PRD RI WP for the public comment period.

If you have any questions about this comment letter, please contact me at (360) 407-6234 or connie.groven@ecy.wa.gov.

Sincerely,

Connie Groven, P.E.
Toxics Cleanup Program
Southwest Regional Office

By certified mail: 9489 0090 0027 6066 5601 02

Email Attachments: Revised Draft Agreed Order
Revised draft Scope of Work
Redline Remedial Investigation Work Plan main text

cc by email: Karen F. Goschen, Port of Port Angeles, kareng@portofpa.com
Amanda McKay, Floyd|Snider, amanda.mckay@floydsnider.com
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Ecology Site File