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October 1, 2025

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Re: Comments on Hylebos Marsh Interim Action Plan

- **Site Name:** Taylor Way and Alexander Avenue Fill Area (TWAAFA)
- **Site Address:** 1500 Block Taylor Way E, Tacoma, Pierce County, WA 98409
- **Agreed Order:** DE 14260
- **Enforcement Order:** DE 19410
- **Facility/Site ID:** 1403183
- **Cleanup Site ID:** 4692

Dear Scott Hooton and Tasya Gray:

Thank you for submitting the Hylebos Marsh Interim Action Plan (plan) for review to the Department of Ecology (Ecology).[1] The plan was prepared on behalf of the Port of Tacoma (the Port). Under WAC 173-340-430, an interim action is a remedial action that is technically necessary to reduce a threat to human health and the environment by eliminating or substantially reducing one or more pathways for exposure to a hazardous substance, that corrects a problem that may become substantially worse or cost substantially more to address if the remedial action is delayed, or that is needed to provide for completion of cleanup related study or design. The Port is proposing an interim action under Enforcement Order DE 19410 on the eastern portion of the Hylebos Marsh portion of the Site. Below are Ecology's comments on the plan.

1. The Port is proposing an interim action to address hazardous substances and auto fluff fill material and because of the urgent need to eradicate vineyard snails. Vineyard snails are an invasive species that are extremely destructive to crops, especially grains. Ecology agrees that it is appropriate to consider and provide comments on the Port's proposed

[1] Maul Foster Alongi (MFA), 2025, Hylebos Marsh Interim Action Plan, Taylor Way and Alexander Avenue Fill Area, Draft, February 28.

interim action. As stated in Enforcement Order DE 19410 Section VII.H, a public notice and comment period on the plan will be necessary before Ecology approves the plan.

2. **Section 2.1, Property Background**:

    a. List the assessor's parcel numbers for the two parcels that comprise the Hylebos Marsh property.

    b. Include a description of the proposed development and what will be constructed on the Hylebos Marsh property and adjacent parcels. Also include a figure illustrating the Neptune Development, similar to the Site Development Concept figure.[2]

3. The boring log for SB-12 noted the presence of white chalky (lime waste) material with a strong rancid odor from 8.5 to 18.3 feet below ground surface (MFA, 2024).[3] Lime waste type material was also observed in boring SB-13 from 5.0 to 6.1 feet below ground surface (MFA, 2024). As shown in plan Table 2-1, tetrachloroethene (PCE) and trichloroethene concentrations exceeded the soil MTCA Method A Unrestricted Land Use Cleanup Levels for tetrachloroethene (PCE) and/or trichloroethene (TCE) in the SB-12@9' and SB-12@18.5' samples and PCE and TCE were detected in the SB-12@8.0' sample. The SB-12@8', SB-12@9' and SB-12@18.5' samples also exceeded the MTCA soil cleanup level for PCE and/or TCE for protection of marine surface water, groundwater to surface water pathway. The presence of PCE and/or TCE in lime waste is indicative of lime solvent sludge, from the nearby Occidental Chemical Corporation facility. Therefore, the plan needs to incorporate the presence of lime solvent sludge in relevant sections, including Sections 1.1, 2.1, 2.2, 2.4, 2.4.1, 2.4.3, and 3.1.

4. The plan also needs to include the treatment or removal of lime solvent sludge containing materials in the vicinity of SB-12 in the interim action due to exceedances of soil cleanup levels for protection of marine surface water, groundwater to surface water pathway. The existing groundwater monitoring well network in this portion of the Site is not sufficient to empirically demonstrate that lime solvent sludge in the SB-12 area does not have the potential to cause an exceedance of preliminary groundwater cleanup levels. Therefore, please revise Alternative 2 to include the off-site removal of lime solvent sludge materials. It is assumed that the disposal of lime solvent sludge materials are already included in the hazardous materials disposal for Alternatives 1 and 3.

5. **Methane Survey:** The potential for methane to occur in the vadose zone at concentrations that could pose a risk to the planned development was not evaluated as

[2] 2025, Joint Aquatic Resources Permit Application (JARPA) figures, Site Development Concept, Sheet 5 of 7, January.
[3] Maul Foster Alongi (MFA), 2024, Hylebos Marsh: Subsurface Investigation, October 31.

part of the remedial investigation. Significant organic material is present on the Hylebos Marsh parcels from wetlands sediments as well as wood debris fill materials. Since all or most of the Hylebos Marsh Property will be covered with low permeability materials (large warehouse or pavement), there is the potential for a buildup of methane concentrations. Elevated methane concentrations beneath a nearby Burlington Environmental facility building required the installation of a vapor mitigation system. Therefore, a methane investigation consistent with ASTM Standard E2993-23, **Standard Guide for Evaluating Potential Hazard in Buildings as a Result of Methane in the Vadose Zone**, shall be necessary for the Hylebos Marsh parcels. Please prepare a methane investigation work plan for Ecology review and approval or include as an appendix in the revised Plan. The request for a methane investigation on the Hylebos Marsh parcels was previously made in a 2018 comment letter.[4]

6. The plan includes alternatives that include the removal and/or segregation and capping of materials above screening levels. However, the plan does not include a sampling and analysis plan (SAP) and quality assurance project plan (QAPP). The SAP shall include a discussion of confirmation sample locations, and laboratory testing. Please include this in the revised plan.

7. Please include the boring logs from MFA (2024) and from all other Hylebos Marsh borings/wells in an appendix. Please also include a summary table for the wells/borings on the Hylebos Marsh property that includes the boring/well ID, installation date, contractor, total depth, nominal well diameter, screened hydrogeologic unit, screen interval and slot size, depth to water, water-level elevation, and the date of the water-level measurement shown in the table.

8. **Feasibility Study – New Requirements:** The Model Toxics Control Act (MTCA) was recently modified to include new requirements effective January 1, 2024. These requirements include additional information that needs to be included in the feasibility study portion of the Plan. Please revise the Plan accordingly to include the following:

    a. Disproportionate cost analysis (DCA) criteria consist of protectiveness, permanence, effectiveness over the long term, management of implementation risks, technical and administrative implement ability, and total present worth of construction and post-construction costs.[5]

[4] 2018, Ecology, Ecology comments on the Data Gaps Work Plan, Response to Comments, dated May 18, 2018, prepared by Dalton Olmsted Fuglevand (DOF), August 3.
[5] WAC 173-340-360(5)(d).

b. To determine whether a cleanup action alternative provides for a reasonable restoration time frame, there are 11 minimum factors that must be considered.[6] These factors include public concerns identified under WAC 173-340-600 (13) and (14) and Indian tribes' rights and interests identified under WAC 173-340-620.

c. **Considering Vulnerable Populations and Overburdened Communities:** The revised rule requires that when a determination is being made on whether a cleanup action uses permanent solutions to the maximum extent practicable, the impacts of cleanup action alternatives on likely vulnerable populations and overburdened communities need to be considered for three criteria (protectiveness, effectiveness over the long term, and management of implementation risks). This analysis needs to be documented in the Plan and should include at least:

   i. Background information identifying likely vulnerable populations and overburdened communities, if any, likely to be affected by one of the cleanup action alternatives in the DCA.

   ii. An explanation of the how impacts on these populations and communities are accounted for when scoring or weighing each of the three relevant DCA criteria.

   iii. An assessment of the overall impact on the outcome of the permanent to the maximum extent practicable (PMEP) evaluation.

9. **Figure 4.1, Proposed Interim Action Components**: This figure shows the sheet pile wall along the entire eastern Hylebos March property line, including beyond the north and south boundary of the interim action area. Please add text to explain why it necessary to install it along the entire Property line and modify the figure as appropriate.

10. **Section 3, Interim Action Description and Tables 3-1, 3-2, and 3-3:**

a. Please add to the text and tables the estimated volumes of soil that will be excavated for each of the alternatives as well as cross-sections for each alternative that illustrate the depth of excavation along a north-south cross-section.

b. Section 3.1.1, Alternative 1 – Excavation and Off-Site Disposal:

   i. The text states that excavation and off-site disposal would remove soil that exceeds screening levels. Please state the specific screening levels that you are referring to. A variety of screening levels are shown in the plan.

[6] WAC 173-340-360(4)(c).

For example, Figure 2-2 shows separate areas that exceed MTCA A Industrial and MTCA A Unrestricted Land Use Cleanup Levels and Table 2-1 lists MTCA Method A Unrestricted Land Use Cleanup Levels and Washington State background metals concentrations for Puget Sound. Screening levels need to be protective for future land use and potential receptors. As noted above, screening levels for protection of marine surface water via the leaching pathway need to be included also.

ii. A more detailed discussion of how excavated soil would be subject to Animal and Plant Health Inspection Service (APHS) regulation is needed. The text simply states that excavated soils and surrounding soils/autofluff would "likely" be APHS regulated. What specific regulations apply? Also, what are the limitations for regulated soil? For example, is there a depth limitation? Or excavation time of year? Are there protocols that could be put in place to have confidence that soils removed from the Site would be non-APHS regulated? For example, decontamination protocols involving the use of a pressure washer and salt (as mentioned in Section 4.7.2) or dogs trained to detect snails (as mentioned in Section 3.1.2). Is incineration really the only disposal option for APHS-regulated materials? If the disposal facility was not in a suitable climate for snails, or if immediate burial was performed, would incineration really be necessary? What protocols were used for the removal of investigation-derived waste soil from the previous Hylebos Marsh investigations (Crete, 2020[7] and MFA, 2024)?

iii. Table 3-1:

1. Please describe in more detail what Schedule A, Pre-Design Test Pitting ($26,000) consists of and how this information will aid in design.

2. Please describe in more detail what Schedule B, mobilization and preconstruction survey ($363,000) consists of.

3. Please provide a breakdown of the costs for Schedule D, sheet pile wall, excavation, and offsite disposal ($5,878,000). It is not clear why sheet pile wall costs are included for this alternative but are not included for Alternatives 2 and 3. If the sheet pile wall is going to be installed regardless, then it should not be included in the cost estimates for any of the alternatives.

[7] Crete Consulting, 2020, Soil and Groundwater Data Report, Hylebos Marsh Property – 1205 Alexander Avenue and 1300 Taylor Way, Taylor Way and Alexander Avenue Fill Area Site, March 27.

4. Please provide a breakdown of the estimated costs for Schedule F, construction management, administrative costs, permitting, and contingency ($1,938,000).

5. Assumption #3: This assumption states that the "cost for transport and disposal assumes all auto-fluff containing fill **and an area south of the auto fluff extents** will be excavated and disposed of at a hazardous waste incineration facility due to the presence of putrescible waste (i.e. invasive snail species present at the site)." Transport and disposal of material that does not contain concentrations of hazardous waste above screening levels shall not be included in the interim action disproportionate cost analysis. Please remove this cost from all alternatives.

c. Section 3.1.2, Alternative 2 – Containment and Capping:

i. Please provide plan view figures that illustrate the area that will need to be graded to facilitate the installation of the containment wall as well as the approximate locations of the containment wall. Also, a figure that shows the approximate footprint of the auto fluff excavation area and the excavation depth needs to be provided.

ii. Significant more detail is needed to describe how auto fluff and contaminated soil will be kept separate from existing Site soil and import fill during grading. This information should be summarized in the text and provided in more detail in a Soil Management Plan in an appendix. The soil management plan should also summarize how grading will be sequentially performed.

iii. As mentioned above, revise this alternative to include the excavation and off-site disposal of lime solvent sludge materials (SB-12 area). Excavation work needs to include field screening to ensure that the full extent of lime solvent sludge materials are excavated and excavation confirmation samples also need to be collected and analyzed.

iv. An additional note needs to be added explaining how the auto fluff will be "consolidated onsite within existing auto fluff extents."

v. Table 3-2:

1. Please describe in more detail what Schedule A, mobilization and site preparation ($86,000) consists of. Is a preconstruction survey needed for this alternative, as is shown for Alternative 1?

2. Why is the cost ($37,000) for Schedule B, temporary erosion and sediment control a different amount than the cost for this item in Alternative 1 ($26,000)?

3. Please provide a breakdown of the costs for Schedule C, retaining wall installation and grading ($288,000).

4. Please provide a breakdown of the costs for Schedule D, cap installation ($500,000).

5. Please provide a breakdown of the estimated costs for Schedule E, construction management, administrative costs, permitting, and contingency ($488.000).

6. Add an item for the necessary shoring during excavation (for example trench boxes or sheet pile wall) for removal of lime solvent sludge.

7. Assumption #4 states that sheet pile wall construction costs are not included in this estimate. What is the purpose of the sheet pile wall and why is it necessary? If it is going to be installed regardless, then it should not be included in the cost estimates for any of the alternatives except when it is necessary for the excavation of soil with concentrations of hazardous materials above the interim action cleanup level.

vi. Figure 4-2:

1. As illustrated, the “Ecology Block Wall (or equivalent low permeability wall”) will cause ponding and accumulation of water adjacent to the wall on the downslope (west) side of the capped area. Ponding of water on top of capped contaminated material is not acceptable because it will significantly increase leaching of water through the cap.

Ecology requires that the cap and wall be designed to prevent ponding and quickly channel water off of the cap and into an appropriate stormwater system. Please add this explanation in the text and on the figure.

2. Add an explanation for the two different symbols that are used for fill on the east (cap side) and west sides of the Ecology Block Wall. Specifically, are these two fill materials the same or are they different?

3. An additional note needs to be added explaining how the auto fluff will be "consolidated onsite within existing auto fluff extents."

d. Section 3.1.3, Alternative 3 – Containment, Capping, and Post-Eradication Excavation:

i. Table 3-3:

1. Please describe in more detail what Schedule A, mobilization and site preparation ($299,000) consists of. Is a preconstruction survey included in this item?

2. Why is the cost ($37,000) for Schedule B, temporary erosion and sediment control a different amount than the cost for this item in Alternative 1 ($26,000) but the same cost as this item for Alternative 2?

3. Provide a breakdown of the costs for Schedule D, cap installation ($500,000).

4. Why is the cap installation design and cost breakdown for this alternative (Schedule D, $500,000) the same as Alternative 2 if the cap will be temporary? If other words, it does not seem very efficient or cost effective to put a "permanent" (extended time use) cap over an area that will be excavated and disposed of after three years. A more efficient cap design should be used for this alternative if possible.

5. **Assumption #3:** See above comment for Table 3-1.

6. **Assumption #6:** This assumption states that there may be cost savings if cap material is reused as excavation backfill.

Add text to the Plan stating that prior to reuse, stockpile samples will need to be collected and analyzed and approved by Ecology.

e. **Institutional controls:** The Plan needs to include a discussion of institutional controls that are required for each of the alternatives. For example, WAC 173-340-440 requires institutional controls if hazardous substances remain at the site at concentrations that exceed the applicable cleanup level. and their costs need to be incorporated into the cost estimates. In this example, an institutional control consisting of an Environmental Covenant would be necessary. Figure 2-1 shows a "Power Easement" along the eastern edge of the Property, and beneath the proposed interim action area. Your August 26 email and attached survey provided some information about this easement.[8] However, Ecology still needs a copy of a title report that describes this easement. Please also note that if the selected remedy requires an Environmental Covenant, then Ecology will need documentation that the easement holder will be willing to sign a subordination agreement prior to Ecology's approval of the Plan as being ready for public comment.

f. **Table 3-4, Interim Action Alternatives Disproportionate Cost Analysis:** Ecology will provide comments on this table after the Plan is revised to incorporate the comments in this letter.

11. **Section 4.1, Pre-Construction Activities:** Add that prior to prior to ground disturbing activities, a cultural review process shall be completed. This process initiates consultation with Ecology, Tribes, and the Department of Archaeology and Historic Preservation (DAHP). To begin the consultation process, please fill out the Washington Department of Ecology Cultural Resources Review Form and submit to send it to tcpculturalresources@ecy.wa.gov at least six weeks prior to any planned ground disturbing work.

12. **Section 4.3:** Delete the last sentence from the second paragraph of this section. It is not acceptable to simply accept a fill source statement from the landowner. The procedure for fill acceptance shall be the same as was used for the 1514 Taylor Way Development Interim Action (Floyd|Snider, 2017).[9] Ecology will review and approve off-site soil borrow sources prior to import and use as on-Site fill with the exception of fill brought in from established sand and gravel quarries.

[8] Hylebos Marsh IAP – power easement, Email from Scott Hooton, Port of Tacoma, to Steve Teel, Ecology, August 26, 2025.

[9] Floyd|Snider, 2017, 1514 Taylor Way Development, Interim Action Work Plan, June. See in particular Section 6.3.

13. **Permits:** There are additional permits and/or approvals that are needed that are not mentioned in the Plan. Section 4.1 mentions the need to obtain Construction Stormwater General Permit coverage from Ecology, site development permit from the City of Tacoma, and wetlands related permits (U.S. Army Corps of Engineers and Ecology certification). However, there are other regulatory permits and/or approvals that are needed. These consist of State Environmental Policy Act (SEPA) documents and the substantive requirements of local government permits. Ecology will be the lead agency for SEPA. Please prepare and submit a SEPA Checklist for Ecology review. Additionally, the substantive requirements for grading permits from Pierce County and/or City of Tacoma need to be met. Documentation of these substantive requirements shall be submitted to Ecology.

14. **Section 4.7.3, Vulnerability Assessment:** This section mentions that groundwater is not currently in contact with the auto fluff fill at the Property, but coastal flooding due to sea level rise in the future may raise the groundwater table to elevations where auto fluff exists. The text goes on to say that coastal flooding should be considered when selecting a final remedy that will mitigate the potential for a rising water table to interact with waste if left in place. How was this considered in the Plan's selection of Alternative 2 as the preferred remedy? It should be noted in this section that the seasonal shallow groundwater level at nearby well SB-3A has been observed to rise as much as 3-feet during the wet season. So, groundwater is already periodically in contact with auto fluff and/or lime solvent sludge in at least one area (SB-12).

15. **Appendix B** – Health and Safety Plan

    a. **Section 5.6, General Site History:** Add lime solvent sludge to the list of materials that were placed in the Site's unpermitted landfill.

    b. **Health and Safety Plan, Appendix C, Air Monitoring Procedures and Toxicity Action Levels:** Benzene is the only volatile chemical that is mentioned in this table. Please consider if additional chemicals (for example chlorinated volatile organic compounds such as tetrachloroethene and trichloroethene) need to be added to the table.

16. **Appendix C – Inadvertent Discovery Plan:**

    a. Please revise the Inadvertent Discovery Plan (IDP) to use Ecology's template.

    b. The IDP in the Plan only refers to one tribe (Puyallup Tribe). Please note that additional tribes will be included in the cultural review consultation. Depending on the tribe's responses, there may need to be additional tribe notifications in the IDP.

c. The draft IDP states that "there is no need for on-site archaeological monitoring." The decision on whether archaeological monitoring is needed or not will be made following the cultural review consultation process.

17. **Appendix D – Soil Import Acceptance Criteria:** Revise this appendix to incorporate the above comment regarding fill acceptance criteria.

Please revise the plan to incorporate the above comments and then submit for Ecology review. If you have any questions, please contact me at 360-890-0059 or steve.teel@ecy.wa.gov.

Sincerely,

Steve Teel, LHG
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Ecology Site File