STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

August 12, 2025

Todd Nicholson, Executive Director
Port of Friday Harbor
204 Front Street
Friday Harbor, WA 98250

Re: Albert-Jensen Site – Ecology Comments on Uplands RI Report

Site Name: Albert Jensen & Sons
Site Address: 1293 Turn Point Rd Friday Harbor, 98250, San Juan County
Cleanup Site ID: 14759
Facility Site ID: 42226979
Agreed Order No. DE 18071

Dear Todd Nicholson:

On August 1, 2025, Ecology received via email the Draft Uplands Remedial Investigation (RI) Report dated August 1, 2025. Ecology has reviewed that report and we have prepared the attached comments. Please provide comment responses and a revised Upland RI report based on those comments. Ecology anticipates the next steps as follows:

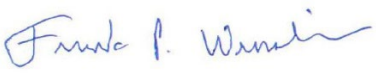
1. Ecology notification of Tribes of the draft Uplands RI Report and Ecology's comments within our online system. We will request that any comments be provided within 30 days. We will forward any comments received from the Tribes to the Port of Friday Harbor (POFH) upon receipt.

2. Per Agreed Order DE 18071, the POFH is to provide comment responses and a Draft Final Uplands RI Report within 45 days of receipt of this letter. Please let us know as soon as possible if an extension is needed to address Ecology's comments.

3. Per Agreed Order DE 18071, a Public Review Draft RI Report to be submitted for public review 45 days after resolution of Ecology's and Tribal comments and receipt of Ecology's request for a Public Review Draft. We anticipate the Public Review of the Upland and Marine RIs will be conducted concurrently for the Uplands and Marine RI Reports.

Please let us know if you have any questions regarding Ecology's comments. If you have any questions about this letter, please contact me by phone at (509) 454-7835 or e-mail at frank.winslow@ecy.wa.gov. Ecology appreciates the ongoing efforts to clean up this Site.

Sincerely,



Frank P. Winslow, LHG
Cleanup Site Manager, Headquarters Cleanup Section
Toxics Cleanup Program

Enclosure: Ecology Comments on Draft Uplands RI Report dated August 1, 2025

cc: Grant Haynsworth, Crete Consulting
Peter Leon, Leon Environmental
Lydia Lindwall, Ecology
Chase Williams, Ecology

Enclosure

Ecology Comments on Draft Uplands RI Report dated August 1, 2025

Albert Jensen Site

Ecology Comments on Draft Uplands RI Report dated August 1, 2025

Please provide comment responses and an updated RI report based on the following comments.

General Comment #1 – Figure and Subsection References

Please double-check the figure and section references in the report. There are currently two Figure 2-1s (one in-text and one at the end of the report). Also, note there were subsections within the table of contents, and in the Word version of the report, but not within the PDF report. This comment is repeated below for several sections.

Comment #1 – Appendix A – Boring Logs/Well Completion Diagrams

Appendix A contains boring logs/well completion diagrams for MW-7, MW-8, and MW-9 but not other Site monitoring wells. Please add boring logs/well completion diagrams for MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 to Appendix A.

Comment #2 – Appendix B – Laboratory Analytical Reports

Please ensure that Appendix B includes all laboratory data for soil and groundwater samples collected subsequent to the 2018 RI report.

Comment #3 – Section 2 – Figure 2-1

Please split Figure 2-1 into two figures: Figure 2-1a, Historical Site Features, and Figure 2-1b, Current Site Figures. These figures are requested in order to make it more clear what features are no longer present. Please annotate labels for historical site features that are no longer present with the year range they were present.

Please add to these figures labels for the shop floor drain, the stormwater pond, the drainfield, and any other unlabeled features. For Figure 2-1a, please add the historical extent of the boat building structure, as well as other structures visible in aerial photographs that are not currently shown. An example is from an oblique aerial photograph which shows shoreline structures not shown on Figure 2-1. Building uses should all be labeled.

Comment #4 – Section 2.3.1 – Shop Building

Please add discussion of the current uses of the shop building, and whether or not any chemicals are currently stored or used inside.

Comment #5 – Section 3 – Water Level Table

Please add a table with all water level measurements (depth to water and water level elevation) from all monitoring wells.

Comment #6 – Section 3 – Upland Field Investigations

Please correct subsections in Section 3 (two Section 3.2) and cross check with the table of contents (TOC):

As discussed below, additional subsections are requested under Section 3.2, previous investigations.

Comment #7 – Section 3.2 - Previous Investigations Discussion

Ecology requests that summary discussion be added for previous soil, groundwater, and sediment investigations conducted at the Site. This should include a summary for each investigation conducted (under a sub-header for each investigation), including number of samples for various site media, and conclusions and recommendations from the study.

Comment #8 – Section 3.3 – 2022 to 2024 Investigation Activities

Please add discussion regarding the objectives of these investigations, including data gaps identified during previous investigations. Please list the data gaps identified by the previous investigations and activities conducted to address those data gaps. If a data gap from these previous investigations was considered to be closed, please reference where Ecology concurrence was provided on such.

Comment #9 – Section 3.3 – Shipyard Cove

Please add discussion of Shipyard Cove investigations and reference Ecology letter re the creation of the new Shipyard Cove Site.

Comment #10 – Section 3.3 – Intertidal Porewater Study

Ecology understands that the intertidal porewater study that was conducted was considered rejected by the POFH team. Such a study would have bearing on both the uplands and marine RI reports and should be discussed in both RI reports. Please add a subsection to Section 3.3 on this study. Details on this study should be provided within a separate technical memorandum (TM) or within the RI Report. Such details should include investigation methods and results, and all data from that study. Ecology cannot provide concurrence on the rejection of such data until such a TM has been provided and reviewed.

Comment #11 – Samples SPZ-1 and MP-1/SPZ-2

Table 3-6 shows groundwater grab sampling results for SPZ-1 and MP-1/SPZ-2. These locations are shown to be within the intertidal area, but are not discussed within the report. Please add discussion regarding the methods and results of these samples. Please add these locations to requested Figures 7-1, 7-2, and 7-3.

Comment #12 – Section 3 – Tables 3-2 to 3-7.

Please ensure that these tables include all current and historical data. Apparently missing data that Ecology has identified include the following:

- Results for shop floor drain – PCE was reportedly detected according to a previous report (and also mentioned in Section 4.3).
- Sampling results from AST-5, 6, and 7 – these sample locations were shown on Figure 2-1 but no results were provided in tables.
- Sediment results from stormwater pond – previous investigation had very high copper concentrations in a sediment sample (see Whatcom 2018 Table 3).

Comment #13 – Section 4 – Conceptual Site Model

Please add subsection headers for this section. Please ensure that all active and inactive exposure and transport pathways are listed and discussed in this section. Discussion of inactive exposure or transport pathways should include the basis for the conclusion that a pathway is inactive. Presenting all potential pathways in tabular or bullet format plus text elaborating on pathways of concern would be helpful (see Shannon & Wilson 1999 Figure 4 for an example of a robust presentation).

Please add discussion regarding the surface soil to marine sediment pathway. Also please note that previous investigations discussed a vapor intrusion pathway; however, Ecology is unaware of any detections of volatile contaminants other than the PCE in the floor drain sample discussed above.

Comment #14 – Section 4.2 – Site Hydrogeology

Please add discussion of the Site hydrogeology including depth to water in different parts of the Site.

Comment #15 – Section 4.3 – Potential Source Areas/Areas of Potential Concern

Please add subsections for discussion of additional Site features of potential concern including the stormwater pond and the drainfield. Sources of water or liquids entering these features (as well as the shop drain) should be discussed, as well as where they drain to. If there are unknowns (such as where the shop floor drain drains to) then this should be mentioned and included as a data gap within the report conclusions.

Comment #16 – Section 5 - Terrestrial Ecological Evaluation (TEE)

Section 5 discusses the TEE pathway. Inputs to MTCA Table 749-1 are summarized in the text. Ecology disagrees with the estimated open space within these inputs (Ecology estimates 15 acres of open space within 500 feet of the Site). Please correct this value (and the number for low habitat quality) and the conclusions (the Simplified TEE process cannot be ended).

Table 749-1				
		Points	Result	
1	Open Area Acres?	12	15	acres
2	Industrial or Commercial?	3	Yes	
3	Habitat Quality?	3	Low	
4	Likely to attract wildlife?	2	No	
5	PBTs present?	1	Yes	
6	Sum	9		
	9<12, Therefore the Simplified TEE process cannot be ended.			

Comment #17 – Section 5 – Text & Table 5-1.

Section 5 discusses preliminary cleanup levels. Please correct the reference to Table 4-1 in the text. Additional specific comments are as follows:

- Please add discussion regarding the surface soil to sediment (runoff) pathway. SCOs from SCUM Table 8-1 should apply for this pathway for surface soil sampling results. Please compare the marine-based PCULs with the SCOs in Table 5-1 to ensure that this pathway is conservatively covered by the marine-based PCULs. If the SCOs are always greater than the marine-based PCULs, then this pathway should be sufficiently covered by the marine-based PCULs.

- Please add the Method A cleanup level for lead (250 mg/kg) to the human health cleanup level for soil to Table 3-2 and other tables listing various cleanup levels.
- Please add the TEE-based concentration for cadmium (36 mg/kg for commercial/industrial) to Table 3-2 and other tables listing various cleanup levels.

Comment #18 – TEE Values in Table 5-1

Ecology notes that TEE values presented in Table 5-1 are for commercial/industrial land use. Application of these values (rather than unrestricted values) will require the recording of an Ecology-signed environmental covenant (EC) restricting land uses to commercial/ industrial uses in perpetuity. If these values are to be used within the RI, then a commitment to such a land use restriction must be included within the RI report.

Comment #19 – Section 6 - Indicator Hazardous Substances (IHS)

IHS are discussed within Section 6. Please add the following criteria for IHS from WAC 173-340-703 (2) to this discussion:

> *(2) Approach. If the department considers this approach appropriate for a particular site, the factors evaluated when eliminating individual hazardous substances from further consideration shall include:*
>
> *(a) The toxicological characteristics of the hazardous substance that influence its ability to adversely affect human health or the environment relative to the concentration of the hazardous substance at the site, including consideration of essential nutrient requirements;*
>
> *(b) The chemical and physical characteristics of the hazardous substance which govern its tendency to persist in the environment;*
>
> *(c) The chemical and physical characteristics of the hazardous substance which govern its tendency to move into and through environmental media;*
>
> *(d) The natural background concentrations of the hazardous substance;*
>
> *(e) The thoroughness of testing for the hazardous substance at the site;*
>
> *(f) The frequency that the hazardous substance has been detected at the site; and*
>
> *(g) Degradation by-products of the hazardous substance.*

In general, IHS are contaminants for which cleanup will result in cleanup of other contaminants that are represented by the IHS. Please add the following tables

summarizing the selection of Indicator Hazardous Substances, and the contaminants that are represented by the IHS. These tables should follow Table 6-1 and 6-2.

Summary of Soil Indicator Hazarous Substances

Site Contaminant	IHS?	Representative IHS	Most restricitve PCUL pathway	Notes
Copper	**Yes**	--	Marine	
Arsenic	No	Copper	Marine	1
Cadmium	No	Copper	Marine	2
Chromium	No	Copper	Marine	2
Mercury	**Yes**		Marine	3
Lead	**Yes**	--	TEE/HH	4
Zinc	**Yes**	--	Marine	5
Total PCBs	**Yes**	--	Marine	
Total DFs (TEQs)	**Yes**	--	Marine	
TBT	**Yes**	--	Marine	
DRPH + HRPH	**Yes**	--	TEE/HH	6
DRPH	No	DRPH + HRPH	TEE/HH	6
HRPH	No	DRPH + HRPH	TEE/HH	6
Total CPAHs (TEQs)	**Yes**	--	Marine	7
Benzo(a)pyrene	No	Total CPAHs	Marine	7
DDT	**Yes**	--	Marine	8
DDD	No	DDT	Marine	8

1 - Arsenic exceeddances co-located with copper exceedances except two samples (SRWA-4-3.5' and MW-4-11') Therefore arsenic is a HIS only at locations SRWA-4 and MW-4.

2 - Copper always present at concentrations above PCUL when the PCUL for the contaminant was exceeded.

3 - Mercury exceedances co-located with copper exceedances except one sample (SRWA-13-3-5'). Therefore mercury is IHS only at location SRWA-13.

4 - Lead exceedances co-located with copper exceedances; however, lead cleanup driven by TEE and HH whereas copper cleanup driven by marine pathway.

5 - Zinc exceedances co-located with copper exceedances except for three samples (FDA-3-2.5', TP-5, and TP-6). Therefore zinc is an IHS only at locations FDA-3, TP-5, and TP-6.

6 - Cleanup of DRPH + HRPH will result in compliance for both ranges.

7 - Cleanup of total CPAHs will result in compliance for Benzo(a) pyrene.

8 - DDT always present at concentrations above PCUL when DDD PCUL exceeded.

Please revise Section 6.2 per the above table. Note that based on this table, cleanup for protection of marine environment is needed at all locations with Copper exceedances, but only one additional location for Mercury, two additional locations for Arsenic, and three additional locations for Zinc. Cleanup for protection of TEE/HH is needed at all locations with Lead and TPH exceedances.

Since cleanup approaches may be based on the receptor pathway of concern, Ecology does not concur with lead being removed from the list of IHS (lead cleanup driven by TEE/HH, not marine pathway).

Also, Ecology does not concur with removing organic compounds as IHS based on their being co-located with metals, since cleanup options may differ based on the physical properties of these contaminants. Also, the amount of data is also pertinent, and very limited data are available for the majority of the organic IHS (DFs, DDT, PCBs) and for TBT. The extent of soil contamination for these constituents is highly uncertain; however, Ecology anticipates that this question can be deferred until the FS stage of the project (if cleanup alternatives that address the metals, CPAHs, and TPH will also address DFs, DDT, PCBs, and TBT, if present. Ecology also anticipates that performance or confirmation sampling data will likely be needed for these other contaminants to demonstrate their absence during and following cleanup activities.

Comment #20 – Section 6 – CPAHs Figure

Please add a Figure 6-8 for CPAHs. CPAHs PCULs were commonly exceeded, and the aerial distribution of contamination needs to be presented to compare with the other contaminants.

Comment #21 – Section 6 – Table 6-1

Please add the PQL to this table for the contaminants that have a PCUL less than the PQL. Also, please add TBT to this table.

Comment #22 – Section 6 – Groundwater Areas in Figures 6-1 through 6-5.

Cleanup level exceedances for groundwater grab samples are shown in Table 3-6, and include exceedances for arsenic, cadmium, chromium, copper, lead, mercury, and zinc. Ecology considers cleanup level exceedances from grab samples to be applicable for contamination extent mapping, unless such data are superseded by co-located monitoring well data. Ecology notes cleanup level exceedances from these samples that are outside of the areas of groundwater contamination shown on Figures 6-1 through 6-5. Please modify the groundwater contamination extent maps to include all cleanup level exceedances.

Comment #23 – Section 7 – Depth of Soil Contamination Conclusions

Section 7 states:

> *Based on the results summarized in this RI, chemicals exceeding PCULs in uplands soil and groundwater generally coincide with boat maintenance areas (i.e., BLWA,*

SRWA). In these areas, the highest concentrations contaminants are found within the top 1 foot of soil (Figures 6-1 through 6-7).

Ecology is not able to verify this conclusion from Figures 6-1 through 6-7. We request the submission of a new **Figure 7-1** and **7-2** for Copper and Zinc (the most prevalent contaminants) based on Figures 6-2 and 6-5, but adding the depth and results from the soil samples (and most recent groundwater sample). This can be done with text added next to the sampling location, for example:

1.0'-**135**
2.5'-30
GW-3.0-15'-**220**

For these figures, the interval posted for groundwater should be the depth to groundwater to the bottom of the screened interval. The most recent groundwater result should be used for these postings. Please use bold font for all PCUL exceedances results in these figures.

Ecology prepared the attached map showing locations with soil samples whether or not the vertical extent of contamination has been defined at locations where more than one soil sample was collected. This map suggests that there may be data gaps with respect to the vertical extent of contamination in selected areas. Prior to Ecology opining on the sufficiency of vertical soil characterizations, Ecology wishes to review the supplemental figures for Copper and Zinc discussed above as well as the following figure:

Comment #24 – Section 7 – Relationship Between Contaminants Conclusions

We request submittal of a new **Figure 7-3** showing all soil locations and depths with all IHS with PCUL exceedances. An example of such posting would be as follows:

MW-9-0-2.5' - Cu, DFs, TBT, PCBs, CPAHs

2.5-5' - None

5-7' – Cu

GW-3-13' – Cu, TBT

(Note that this example is for format only and not showing the actual results from MW-9). This Figure 7-3 is requested to show the relationship between the contaminants and media at the Site. This figure should also include delineation of the lateral extent of all contaminants exceeding their respective PCULs. Observations from this figure should be discussed in Section 7. Ecology notes that the requested Figures for Section 7 (Figure 7-1, 7-2, and 7-3) are critical with respect to assessing the sufficiency of the delineation of the lateral and vertical extent of contamination.

Comment #25 – Section 7 - Remaining Data Gaps

Please add a subsection titled “Remaining Data Gaps” and list all known remaining uplands data gaps, including but not limited to the floor drain system, the stormwater pond (if data gaps are identified).