



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47600, Olympia, WA 98504-7600 • 360-407-6000

December 11, 2025

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

Re: Albert-Jensen Site – Ecology Comments on In-Water 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 September 30, 2025, The Department of Ecology (Ecology) received via email the Draft In-Water Remedial Investigation (RI) Report dated June 2025. Ecology has prepared the following comments and clarification requests on that RI Report. Please revise the document based on the below comments and resubmit the revised report along with comment responses (in memo format). It would be helpful for our review to also include revisions in a Word document using track changes.

Ecology's comments are provided for the report, Appendix A, and Appendix B. Ecology notes that Appendix B includes new proposed human-health based concentrations for sediments. Of particular importance are proposed human-health (HH) based concentrations for polychlorinated biphenyls (PCBs) and total Carcinogenic Polycyclic Aromatic Hydrocarbons (total cPAHs) toxicity equivalences (TEQs). For PCBs, the extent of sediment contamination above the proposed HH-based concentration of 4.0 ug/kg has not yet been defined. This is a key component needed in preparing a Feasibility Study (FS) for the project. In addition, a table and map presenting calculated total cPAH TEQs in sediments has not been submitted to Ecology. Therefore, we don't yet know whether or not the extent of total cPAHs in sediments above the proposed HH based concentration of 21 ug/kg has been defined. A table and map providing Total cPAHs TEQs in sediment should be submitted to Ecology as soon as possible.

Ecology provided concurrence on proceeding with work on the FS within an email dated October 6, 2025, that stated:

I would think that your proceeding with preparing the FS report at this time makes sense. By providing our concurrence on that question at this time, Ecology is not providing any opinions regarding the sufficiency or completeness of the RI reports. We do; however, recognize that the general characterization of the Site appears to be sufficient for the purpose of screening and identifying appropriate cleanup actions. There may be data gaps that will need to be filled prior to the selection and design of the appropriate cleanup actions. In addition, the RI identifies preliminary cleanup levels for Site contaminants. Ecology's concurrence will be needed for proposing cleanup levels and points of compliance within the FS and then finalizing them within a Cleanup Action Plan.

Our concurrence on proceeding with the FS was based on an understanding of the extent of sediments contamination being generally defined (except for the sediment data gap on the eastern portion of the site). The new information regarding HH-based concentrations for sediments suggests that a pause on FS-related work is likely appropriate until these key components have been resolved (i.e. the extent of sediment contamination above HH-based concentrations has been defined). Usually, these missing key components would have been brought to Ecology's attention proactively and/or included in the RI, rather than awaiting our review comments on the In-Water RI report.

The draft In-Water Report, and our comments will be provided to Tribes as part of our Tribal Engagement process. We anticipate that the Tribes may have additional comments. Note that both the Uplands and In-Water RIs will also be submitted for public comment once Ecology's comments have been addressed and a revised draft RI report has been approved by Ecology.

Ecology Comments on Draft In-Water RI Report

General Comment #1 – Layout of the RI Report

The layout of the RI is confusing and unconventional. Appendix A, Draft In-Water Sediment Characterization Report includes typical elements of an RI report. In fact, the purpose of the In-Water RI report is to characterize sediments. This unconventional layout results in the repeating of tables and figures but also results in Appendix A having four appendices (Appendix A, B, C, and D). To avoid confusion, Ecology has renamed these in our online record as Appendix A, Attachments 1 through 4). Ecology is not asking for the report to be reorganized; however, in the future we would suggest a more conventional RI report layout.

General Comment #2 – SRWA Data

This report needs to integrate the SRWA sediment sample data. That data has been included in the uplands reports and it need to be fully incorporated into the in-water report (including text, figures, tables, and appendices) and plans going forward.

The uplands RI included ten sediments samples from six locations in the Ship Rail Work Area (SRWA). These six locations were all reportedly below the HTL/OHW. Why were these samples not included in the In-Water RI? Note that cleanup in areas lower than the HTL/OHW will need to be considered marine rather than uplands cleanup since there is potential for impacts to the marine environment during cleanup work.

General Comment #3 – 2018 Sediment Data

The 2018 sediment data needs to be included in text, figures, tables and appendices. The discussion and document mainly focus on newer 2023 sediment sampling data. The 2018 data is critical to include in this document because it specifically shows contamination within the biologically active zone. This data is critical for both understanding risk to benthic life and to establish nature and extent of COCs at the site. The 2023 data solely shows average concentrations across the 0-1' interval which is not appropriate for establishing nature and extent for benthic life.

General Comment #4 – Copper and Zinc

The draft RI Report (for example, Appendix A, Section 3.2.1) identifies mercury as the sole metals in sediment with concentrations exceeding SMS marine criteria. Both copper and zinc are also Site contaminants, with three exceedances for copper criteria in SCUM Table 8-1, and two exceedances for zinc. Please revise the RI report in all locations where site contaminants are mentioned to include copper and zinc. Also, since copper is the most wide-spread contaminant in the uplands RI, please add a Figure to Appendix A showing copper concentrations in sediment samples, highlighting the exceedances of the SCO and CSL of 390 mg/kg.

General Comment #5 – Calculation of Total PCBs and Total DFs

The sediment result table within the RI Report and Appendix A Tables 3-3, 3-4, and 3-5 have a “U” qualifier for total PCBs and total DFs. If any Aroclor compounds have been detected, the “U” qualifier should be removed from the value for total PCBs. Similarly, if any Dioxins or Furan compounds have been detected, the “U” qualifier should be removed from the value for total DFs. Also, Ecology advises for these two data sets, that the total value be calculated by applying one half of the detection limit for non-detect values.

General Comment #6 – Calculation of Total CPAHs

Since Carcinogenic Polycyclic Aromatic Hydrocarbons (CPAHs) are a Site contaminant for the human health pathway in Appendix B, total CPAHs TEQs should be calculated and added to the tables. Note that total CPAHs are widespread in shallow soils in the upland areas.

General Comment #7 – Site Sediment Contamination Tables

Ecology noted that tables with sediment results were presented both in the RI Report and in Appendix A. However, there are differences between the two tables. For example, total PCBs had some different results between Appendix A Table 3-3 and the unnumbered table at the end of the RI (see for example results from location SED-8). Please ensure that all presented tables are accurate and complete.

General Comment #8 – Site Sediment Contamination Figures & SED-13

The Site contamination figures found in Appendix A are not showing location SED-13. This location is shown in Figure 2-1 (In-Water Sediment Sample Locations). Please ensure that the result maps all show this sample location and the sampling results. Also, the count of locations with exceedances within the text do not appear to reflect this location – please check the count of exceedances and make sure that they include location SED-13.

General Comment #9 – Water Level Lines in Figures and Text

Figures presented within the Uplands RI report included the Mean Higher High Water (MHHW), and Ordinary High Water (OHL) lines. The In-Water RI report shows the High Tide Line (9.2 ft above Mean Lower Low Water [MLLW]) on Figure 3-1, though the central part of the area below the HTL is cut off. The maps should show all the area below the HTL. Figure 2-1 shows the current MHHW (7.7 Feet above MLLW) as well as the projected future MHHW.

Please discuss within the RI report all of the water level lines (acronyms and definitions) and their relevance to the study (a bullet list may be helpful). The boundary between the upland and in-water areas should be defined and that boundary depicted on Figures 2-1 and 3-1 along with the definitions.

The current figures include a Site Boundary line that separates the uplands and in-water portions of the Site. The portion of this line between the in-water and uplands areas should be relabeled.

General Comment #10 – Lead in SRWA Sediment Samples

As noted from Uplands RI Table 3-7, lead was detected at three locations in the SRWA area below the HTL/OHW at concentrations above the SCO. Hence lead should be considered a site contaminant for sediments. Please add lead to the list of Site contaminants at all locations within the In-Water RI where site contaminants are listed.

Comment #11 – New Figure with Area of Benthic SCO or CSL Exceedances

Please add a new figure within the conclusions section of the RI Report showing the boundary of the exceedances for the Benthic SCO or CSL for any of the Site contaminants, and showing what contaminants were detected at concentrations exceeding the SCO or CSL at each location. Please see the Uplands RI report for an example of this figure.

From the extent of exceedances area, please calculate the resultant area. Isoconcentration areas were presented within a submittal to Ecology in May of 2024, though they were not closed polygons that allow calculation of areas. To close the isoconcentration areas, the southern extent can be defined as the HTL/OHW.

Comment #12 – New Figure with Area of HH SCO/CSL Concentration Exceedances

Please add a new figure to the RI Report similar to the last requested (Comment #11) for the conclusions section showing the boundary of the exceedances of HH Concentrations for any of the Site contaminants, and show what contaminants were detected at concentrations exceeding these concentrations at each location. Please calculate the resultant area.

Comment #13 - Section 1.4.1

In addition to historical sources of contamination, this section needs to include details on any potential on-going sources of contamination from current work at the site.

Comment #14 - Section 1.4.1 Boatyard

This section needs to include additional details on the water collection and treatment system. Details should include:

- What exactly is the treatment system for (target contaminants).
- Where it is discharged.
- All water and filtrate testing data.

Comment #15 - Section 1.4.1, 4th paragraph

“Order” should be changed to “Agreed Order”.

Comment #16 - Section 1.4.1, Marina

In this section, please include more information on the nature and extent of the debris field, such as depth and a figure showing the area impacted.

Comment #17 - Section 1.5

Please add a summary of key findings from previous investigations, including a map showing the areas of the eelgrass surveys and benthic community analysis information.

Comment #18 - Section 1.5

“Leon Environmental 2019” should be changed to “Shannon and Wilson 2019”. The report is only referenced as Shannon and Wilson in following sections.

Comment #19 - Section 2.2

This subsection references the SRWA. Please reference a map showing the defined shoreline areas (including the SRWA).

Comment #20 - Section 2.3

This section is redundant to the Uplands-RI document. We suggest just referencing the Uplands RI in this uplands only section if you keep it.

Comment #21 - Section 2.4

Please add additional discussion regarding groundwater flow to surface water via sediments and seeps since this could represent an important source control concern.

Comment #22 - Section 2.4, second paragraph

This section seems unclear in its relevancy. Please provide a map and text of this feature to help explain how this is related to the sediments.

Comment #23 - Section 2.5

Please add discussion regarding the intertidal geology, including sediments characteristics.

Comment #24 - Section 3.1, first paragraph

Please add discussion on what the data gaps were and if they were addressed.

Comment #25 - Section 3.1, second paragraph

Please add the list of the preliminary sediment COCs that were identified in this study.

Comment #26 - Section 3.2, third paragraph

SCUM does not use DMMP TBT values as SCOs or CSLs at sediment sites. Please include an explicit reference for where Ecology provided agreement for concurrence. If no written reference is available, than this sentence should be deleted.

Comment #27 - Chapter 4, second paragraph

The unnamed table at the end of this report indicates at least five sampling stations that exceed the DMMP criteria, not one as stated in this section. Please correct this to reflect exceedances found in the 2018 sampling data. Also, the DMMP criteria is not a cleanup screening level and should not be used to determine cleanup criteria.

Comment #28 - Section 5.1.1, second paragraph

This section incorrectly states the rationale behind the data gap letter. Ecology requested that additional sediment sampling occur within the SRWA sediment area and along the eastern sediment area, not to evaluate upland sources. This does not seem like the correct section for this discussion, and we suggest moving it to the data gaps section (Section 6.2).

Comment #29 - Section 5.1.2

Similar to a question posted earlier (Comment #13), what are the contaminants potentially generated through current facility operations? These contaminants should be listed and discussion provided as to whether any operations could be resulting in additional releases.

Comment #30 - Section 5.2

This discussion seems like it should be in the FS and not in the RI report. These are re-contamination issues related to cleanup operations and not from historical sources. Ecology suggests renaming this subsection Anticipated Operational Changes and discuss the implications of any anticipated operational changes with respect to contamination concerns.

Comment #31 - Section 6.1, last sentence of first paragraph

Given the contamination in the uplands soil, it is entirely possible that an increase in the MHHW would result in the introduction of new contaminant sources into the sediment. This potential concern should be discussed and highlight the need for both uplands and sediment cleanup. This can highlight how future cleanup actions should consider this risk and address it.

Comment #32 - Section 6.2.1

Please discuss the COCs of concern in the stormwater, groundwater and erosion of uplands soil that could contribute to the sediments.

Comment #33 - Section 6.2.2

The cited figures in this section are in Appendix A, not in the RI Report. If figures are cited in the RI Report, they should be included in the RI Report. Also, the sediments data gap area that Ecology provided within our November 25, 2024 letter should be shown

Comment #34 Section 6.2.2

“The Port may perform additional sediment sampling during the feasibility study, as needed to characterize ...” Does this mean either before or during the FS? Ecology never heard back about sampling plans this past summer. Is there an update on that plan?

Comment #35 - Section 6.3.2

Ecological receptors should include the benthic community as well, not just higher-trophic level organisms. Please revise this discussion to include benthic ecological receptors.

Comment #36 - Chapter 7

This section needs to state that cleanup standards are also applied to benthic communities. This section focuses solely on human health criteria, which is met by different standards. Clean up standards should include other COCs such as copper, lead, and zinc. These metals are present in the SRWA.

Comment #37 - Section 7.2.2, second to last paragraph

Please cite the literature references for the statement “salmon are primarily exposed to contaminants relevant to this site outside of Puget Sound”.

Comment #38 - Section 7.3.2

There is no established TBT natural background for use in SCUM. Therefore, this source data cannot be used as justification for a background value. Please delete reference to a natural background concentration for TBT.

Comment #39 - Section 7.3.4

Please also list the SCO/CSLs protective of benthic life (SCUM Table 8-1), including copper, lead, and zinc.

Comment #40 - Chapter 8, last sentence of third paragraph

This same sentence has been used before in the report so the same previous comment applies. Look at Comment #26.

Ecology Comments on Appendix A – Draft In-Water Sediment Characterization Report

Comment #41 - Section 2.1

This section should include a justification of the sampling locations and why only a subset of sampling locations were chosen for various chemical analyses. An example is metals analysis on only a few sampling locations. Also, why was SED-13 not included in the newer round of sampling?

Comment #42 - Table 2-3

These reporting limits seem high compared to what is stipulated within SCUM. Please check SCUM Chapter 11 and Appendix D for appropriate reporting limits and make sure they are below SCO/CSL criteria. Detections limits above SCO/CSL criteria should be flagged and discussed.

Comment #43 - Section 3.2

This section should include the 2018. Most of the 2023 sampling data shows concentrations over a 0-1' interval, while the 2018 data shows concentrations over a 0-10cm interval. The 2018 data has many more exceedances, which feeds into the narrative that most of the sediment contamination is more surficial in the sediments. Considering that a lot of the contamination on the site seems to be surficial and in the biologically active zone (0-10cm), the 2018 values are important for establishing points of compliance and moving into the F/S.

Comment #44- Figures 3-1 to 3-4

Please change the figures to show the whole site and concentrations of COCs at each sampling location with both 0-10cm and deeper sampling depths.

Comment #45 - Table 3-4:

SIZMax is not appropriate, there is no sediment impact zone at this site.

Ecology Comments on Appendix B – Development of Sediment Cleanup Objectives and Cleanup Screening Levels for Human Health and Ecological Receptors:

Comment #46 - General Comment

This report is well written and nicely constructed. We appreciate that the authors endeavored to roughly estimate the seafood consumption risk-based values using the methods described in SCUM as an exercise.

The main issue with the risk-based cleanup values reported in Table 5-1 is they all **need to be based on natural background/PQL** when using the simplified approach. The authors state in section 3.2 that for the report that they will be using the simplified method (option 1 of Ch.9 in SCUM) to calculate the risk based cleanup values for human health. However, the authors erroneously report the SCO and CSL for cadmium, mercury and TBT in Table 5-1 based on seafood consumption calculations that utilized non-site specific BSAFs. Using literature based BSAFs is not allowed according to SCUM and must be site specific. There are a lot of uncertainties when trying to utilize literature based BSAFs for off-site applications, such as dissimilarities in sediment chemistry/geology and organism differences. These factors can heavily influence BSAFs in a highly site-specific way and thus should not be applied to other off-site areas.

Comment #47 - Section 4.2.

Please delete reference to TBT natural background.

Comment #48 – Appendix B Table 5-1 - Lead

Since lead exceeded the SCO or CSL at three SLWA locations (SRWA-2, -4, and -5), please add lead to Table 5-1. See also General Comment #10.

Comment #49 – Area of HH Concentration Exceedances

Please add figures to Appendix B showing the results for all bioaccumulative COCs in sediment and highlighting the results above the HH based concentrations (PQL/Natural Background) from table 5-1.

Closing

If you have any questions regarding this letter or would like to schedule a call to discuss any of these comments, please contact me at (509) 424-0543 or chase.williams@ecy.wa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Chase Williams", with a stylized flourish at the end.

Chase Williams, PhD
Cleanup Site Manager
Headquarters Cleanup Section
Toxics Cleanup Program

cc: Grant Haynsworth, Crete Consulting
Peter Leon, Leon Environmental
Kevin Kalefern, Ecology
Lydia Lindwall, Ecology
Frank Winslow, Ecology