



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

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

June 30, 2025

Tom Graham
Director EHS, North America
JELD-WEN, Inc.
2645 Silver Crescent Drive
Charlotte, NC 28273

Re: Initial Comment on Jeld Wen - Marine Engineering Design Report

Site Name: Jeld Wen
Site Address: 300 W Marine View Drive, Everett, WA 98201-1030
Cleanup Site ID: 4402
Facility Site ID: 2757
Agreed Order No. DE 5095

Dear Tom Graham:

Ecology has received your draft Marine Engineering Design Report, dated June 2025, (received by Ecology on June 23, 2025). As Ecology completes our review of this document, we have one initial comment that we wanted to provide you with as soon as possible.

Proposed segments for shoreline armoring were shown on Figures 12 and 13 for the Logway and South Shore area, respectively. The Cleanup Action Plan (CAP) dated August 2023 stated on page 34:

Construct shoreline erosion protection along the top of the bank adjacent to SMA 3 (as needed).

The CAP also stated on page 5:

Requirements for shoreline protection and slope stabilization in demolition and piling removal areas, and in areas adjacent to engineered caps or excavations will also be refined during remedial design, including considerations for climate change and seismic stability.

Since the CAP was written, characterization of dioxin/furans (DFs) in shallow shoreline soils was performed to assess the need for prevention of recontamination following the sediment cleanup work. As discussed in our letter dated June 12, 2025, there is a risk of DFs exceeding background concentrations throughout the peninsula. Hence, prevention of the erosion of shoreline soils that could re-contaminate the sediments following sediment cleanup is needed. A multitude of site-specific factors were considered in making this determination.

Ecology has concluded that prevention of recontamination via shoreline erosion prevention is warranted in areas where sediment cleanup work is required, included shorelines adjacent to removal, engineered capping, and enhanced monitored natural recovery (EMNR) areas. Marine EDR Figures 12 and 13 showing these cleanup areas for the Logway and Shoreline, respectively. In areas where uncontaminated materials are added as part of the cleanup work, any shoreline erosion has potential to bring additional contamination on top of the added clean materials. Currently, Figures 12 and 13 only show armoring at shorelines immediately adjacent to SMA-3 (removal and engineering capping areas). Only having erosion protection adjacent to SMA-3 areas could result in a significant recontamination concern. Hence, Ecology has concluded that prevention of erosion is warranted adjacent to all areas of removal, engineered capping, and EMNR. **Ecology requests that EDR Figures 12 and 13, be revised to ensure that all shoreline adjacent to all Logway and South Shoreline removal, engineered capping, and EMNR areas includes armoring/erosion protection.**

In addition to significantly improving conditions to prevent recontamination concerns, this modification is also anticipated to significantly enhance armoring constructability, since instead of a series of detached segments of armoring, the armoring would cover the entire stretches of cleanup (as shown in Figures 12 and 13, EMNR is proposed for the entire stretches of cleanup work along the Logway and South Shoreline).

As previously discussed, no armoring is proposed for the Knoll area. This area appears to have significantly less recontamination concerns than the Logway and South Shoreline areas, and a shoreline more conducive to habitat is currently planned for the Knoll area.

Ecology notes that shoreline armoring may have multiple purposes, including prevention of erosion that could cause recontamination of sediments, as well as the general protection of the property. Under the Model Toxics Control Act (MTCA) and Sediment Management Standards (SMS), Ecology Toxics Cleanup Program's (TCP's) purview regarding armoring is solely with respect to prevention of recontamination.

The EDR report in Appendix C (Coastal Engineering Analysis) included a wind/wave analysis that Ecology had requested. Thank you for performing this work. The wind/wave analysis provides a technical rationale for the need for armoring on the Logway and South Shore areas for protection of the Property as well as protection of the remedy. Ecology notes that areas of armoring needed for the MTCA remedy are evidently exempt from mitigation, whereas areas that are not needed for MTCA purposes would have mitigation requirements determined by the National Marine Fisheries Service's (NMFS's) mitigation calculator.

Once Ecology TCP has provided our concurrence on the armoring needed for protection of the remedy, if additional armoring is desired in other areas, then the segments with applicable mitigation requirements can be determined.

Ecology notes that terms “erosion protection” and “armoring” are not synonymous – armoring generally refers to the dissipation of wave energy to prevent shoreline erosion. In addition, a critical component of erosion protection will be preventing any shoreline materials from reaching the marine environment in the form of suspended solids migration. For example, a coarse rip rap material could have fine soils still migrating within the pores of the rip rap. Hence, erosion protection must consider both wave energy dissipation as well as containment of shoreline soils. Ecology’s review of the draft EDR is ongoing, and we have not yet assessed the suitability of proposed armoring/shoreline stabilization for these purposes.

Ecology will continue our review of the draft EDR and will provide additional feedback as soon as possible.

Please let me know if you have any questions regarding this letter. Ecology appreciates the ongoing efforts of the Jeld Wen team to clean up the Site.

Sincerely,

A handwritten signature in blue ink, reading "Frank P. Winslow".

Frank P. Winslow, LHG
Toxics Cleanup Program
Headquarters Section

cc: Jason Cornetta, Anchor QEA
Nathan Soccorsy, Anchor QEA
Susannah Edwards, Ecology
Josh Morman, Ecology