

July 18, 2025

Attention: Frank Winslow, LHG
WA Expedited VCP Site Manager
Toxics Cleanup Program, Central Regional Office
Washington State Department of Ecology
1250 W. Alder Street
Union Gap, WA 98903

SLR Project No.: 108.020778.00001

**RE: Work Plan for Stormwater System Cleanout
Jeld Wen Site, CSID 4402**

SLR International Corporation (SLR) has prepared this work plan on behalf of JELD-WEN, Inc. to describe stormwater system cleanout activities completed and detail the work to be performed on the Jeld Wen Site, Washington Department of Ecology (Ecology) Cleanup Site ID no. 4402 (Site).

Background

Ecology issued the Cleanup Action Plan (CAP)¹ for remediation of Site soil, groundwater and sediments under 2nd Amendment to Agreed Order No. DE 5095 (AO) in August 2023. Section 3.2.2 of the CAP states that "...as part of source control, the performing Potentially Liable Person(s) (PLPs) must remove and dispose accumulated sediment and/or debris from stormwater systems including but not limited to stormwater pipes, catch basins, vaults, and manholes prior to marine sediment cleanup action." In addition, Section 3.2.2 of the CAP states that "Ecology recommends repairing damaged and/or deteriorated stormwater structures to prevent or reduce infiltration of upland fill material and/or groundwater into the stormwater system." Further discussions with Ecology have included permanent abandonment (via in-place grouting of outfalls) as a remedy option to satisfy the terms of the CAP for cases when cleanout of sediments within the lines is not practicable. Examples of such cases include broken and collapsed line which cannot be cleaned out via jetting and vacuuming.

Work Performed

The current property owner, W&W Everett Investments, LLC (W&W), initiated a partial system cleanout focused on the stormwater system in the central portion of the property. A site walk completed in June 2024 with the W&W selected contractor included the collection of one composite sample of catch basin solids from several identified catch basins in the area. The analytical data for selected parameters from the catch basin solids composite samples was included in a work plan that was provided to Ecology in August 2024.² The work plan presented the remediation work zone targeted for cleanout activity as catch basins and conveyance piping associated with outfalls OF-4 and OF-7 through OF-10 (red box area on Figure 1). The stormwater system cleanout procedures included jetting with pressurized water to mobilize solids within the

¹ Washington Department of Ecology (Ecology). Cleanup Action Plan. August 2023

² Floyd | Snider. Work Plan for Remediation of Stormwater Facilities and Components. August 2024.

catch basin structures and using a vactor truck to remove liquids and solids. Once the solids were removed from the basins, jetting of the connecting pipes would proceed working upstream from the outfall locations.

In December 2024, W&W conducted a partial system cleanout in general accordance with the submitted work plan. Upon a request from Ecology, two composited samples of the accumulated material was submitted for laboratory analysis of polychlorinated dibenzo-p-dioxins and dibenzofurans (hereafter referred to as dioxins) as the initial composite sample collected from catch basins was not analyzed for that Site contaminant of concern. The partial stormwater system cleanout activities completed by W&W were documented in a field report³ addressed to JELD-WEN, and was subsequently provided to Ecology.

In an email to Floyd | Snider, acting on behalf of W&W, Ecology stated *“It is Ecology’s understanding from your report and our conversation that the stormwater lines within the central area of the Jeld Wen peninsula have been cleaned out to the extent practicable. There are several stormwater lines that could not be cleaned out due to collapse features, and temporary mechanical plugs were placed on those lines.”*. SLR completed a review of the field report for the partial system cleanout performed by W&W and associated video footage, and identified the following gaps between the CAP requirements, the W&W work plan, the W&W field report, and the cleanout work completed:

- The drainage basin associated with outfalls that discharge to the south shoreline (OF-7 to OF-10) contains the area where the former kiln buildings were recently demolished. It appears that demolition of the former kiln buildings left residual construction debris and areas of exposed surface soil. There are concerns with runoff via overland flow to active catch basins as well as stormwater infiltration and mobilization of impacted solids into broken stormwater infrastructure.
- There was no permanent plugging of any stormwater lines, including lines that showed deteriorated condition or obstructions. Temporary mechanical caps or temporary pneumatic caps were used in these instances. The temporary cap from outfall OF-7 that was installed in December 2024 was no longer observed in-place by April 2025. Discharge has been observed from OF-7.
- Several sections of stormwater lines were not cleaned including the lines upgradient of outfalls OF-7 and OF-8. The section from OF-7 to catch basin CB-34 was observed to be collapsed/obstructed approximately immediately downstream of CB-34. There was no attempt to clean the segment of the line downstream from the obstruction to OF-7. As noted above, the temporary plug from OF-7 is no longer present. There was no associated catch basin upstream from OF-8 and no attempt was made to clean the segment from the obstruction to OF-8.

Other Sampling

Per Ecology’s request, SLR conducted a shoreline shallow soil boring sampling event on April 16, 2025. Under direction and oversight of SLR field personnel, Cascade Drilling advanced 9 soil borings with a Geoprobe direct push drilling rig to a maximum depth of 5-feet below ground surface (bgs) in order to characterize dioxins in upland soils of the Site along the shoreline. The nearshore sampling was conducted to assess future concerns with shoreline erosion that could re-contaminate marine construction areas and support the armoring requirements presented in

³ Floyd | Snider. Field Report for Remediation of Stormwater Facilities and Components of Jeld Wen Site/Former Nord Site. April 10, 2025.



the CAP. Results of the shoreline sampling revealed exceedances of the cleanup level (CUL), based on natural background concentration, in five of the nine locations. Samples were taken at various depth intervals from surface to 5 feet below ground surface (bgs). Analytical results do not suggest a distinct spatial or temporal trend and support the heterogeneous nature of the upland filled soils. Concentrations of dioxins were measured up to 177 picograms per gram (pg/g) in the shoreline sampling event, which is greater than what was detected in the isolated RI locations, but below hot spot concentrations observed in the Woodlife Area⁴.

Remaining System Cleanout Scope of Work

The remainder of the Site stormwater infrastructure will be remediated in accordance with the terms of the CAP to remove and dispose accumulated sediment and/or debris from stormwater systems, and to prevent potential for re-contamination of marine remediation areas post-construction. JELD-WEN has no control over site use, demolition, site development, site maintenance, surface conditions, stormwater controls, stormwater BMPs, etc. It is JELD-WEN's opinion that the optimal available approach to preventing potential re-contamination from the existing stormwater system is the permanent (i.e., grout in-place) abandonment of the existing outfalls.

Catch Basin Solids Sampling Procedure

Prior to cleanout activities, composite samples of catch basin solids will be collected for a waste profile by grouping catch basins that share an associated outfall, pending available access (see Figure 1). The prospective composite samples will be grouped as follows:

- OF-2 and OF-3 (North Truck Dock, interior vault)
- OF-4 (catch basins CB-1 through CB-10)
- OF-5 (catch basins CB-11 through CB-15)
- OF-6 (catch basins CB-16 through CB-25, and CB-42)

Following Ecology's approval of this work plan, composite samples will be collected from each grouping per the general procedures outlined in the PRDI SAP. Depending upon the volume of material accumulated in the basins, one composite sub-sample will be collected from the surface (i.e., top 3 inches of accumulated material), and one composite sub-sample will be collected from the subsurface (i.e., bottom, 3 to 6 inches above the bottom of the catch basin). An approximately equal amount of material will be collected from each basin within a grouping. Actual amounts will be determined in the field upon observation, but attempts will be made to collect sufficient volume of material to fill the required sampling container(s). For each composite sample, a decontaminated stainless-steel spoon will be used to extract the sediment aliquots and will be placed in a decontaminated stainless-steel mixing bowl and thoroughly homogenized using the stainless-steel spoon before being placed into a laboratory-provided sample container. One duplicate sample will be collected as a field quality control measure from a grouping with sufficient volume to allow for extra sample collection.

SLR understands the highly carcinogenic nature of dioxins and will be diligent in the use of Personal Protective Equipment (PPE) for all sampling personnel and adherence to the existing Health and Safety Plan (HASP) included in the PRDI Work Plan.

⁴ SLR. Updated Conceptual Site Model – Upland Soils/Site Definition. July 17, 2025.



The composite samples will be submitted for laboratory analysis to support disposal of the removed material and are expected to be analyzed for upland primary site contaminants of concern including: dioxins, carcinogenic polynuclear aromatic hydrocarbons (cPAHs), and Total Petroleum Hydrocarbons (TPH) diesel and oil range. Additional analytical may be required in accordance with the waste hauling contractor or disposal facility.

Decontamination Procedure for Solids Sampling

SLR personnel will decontaminate non-disposable sample equipment (i.e., stainless steel bowls and spoons) between each composite sample. Decontamination will consist of the following:

- Tap water rinse into dedicated 5-gallon bucket
- Scrub with a soft-bristle scrubbing brush using tap water and a non-phosphatic detergent (i.e., Alconox)
- Tap or Deionized water rinse into dedicated 5-gallon bucket
- Spray with 99% isopropyl alcohol
- Final deionized water rinse and dry using disposable shop towels or air dry

Decontamination water will be containerized in a 55-gallon steel drum on site pending disposal. Disposable sampling equipment will be discarded into SLR's existing dedicated IDW containers kept on site pending disposal as general refuse.

Cleanout Methodology and Outfall Abandonment

Cleanout Methodology

Cleanup activities will involve the jetting of lines with pressurized water in order to facilitate the movement of any solids present in the structures before they are removed via vector truck. Once removed, pressurized water will again be jetted through the lines to clear any potential remaining material. Temporary plugs will be placed at the ends of the associated outfall pipes prior to jetting at locations below the high tide elevation so as to prevent any discharge of wash water or material to the adjacent water body and tideflats.

Collapsed lines, breaks and/or blockages will be confirmed, or otherwise discovered, when jetting a line in the direction of the next catch basin in sequence; if a break is encountered or the line is otherwise nonfunctional, the pressurized water will not be observed exiting the connecting catch basin. To satisfy such cases, any broken lines that can still be effectively jetted will be accessed from both ends of the located break/blockage (upstream and downstream).

After the associated lines of an outfall have been jetted, a video camera will be snaked through each catch basin and through each of the accessible lines, providing immediate closed circuit television (CCTV) footage of the lines' conditions (i.e., if material remains that can be removed and locations of any breaks). The CCTV footage will help determine any additional jetting needed as well as provide documentation of the location of breaks or blockages, as the distance the camera travels is measured and displayed on-screen by the recording equipment. This process of jetting and recording will be repeated until all targeted lines and catch basins are clear of sediments/debris to the extent that their condition and other obstacles around accessibility allow.

Accumulated solids and wash water will be properly containerized by the performing contractor. Solids and wash water will then be disposed of at an appropriate facility, pending the results from the initial catch basin solids profiling.



Line Close and Outfall Abandonment

It has been noted that the Site stormwater system has significantly degraded; all conveyance piping connected to outfalls have broken or collapsed segments. Outfall pipes along the southern shoreline are displaced or missing. Catch basins that can be found are often observed to be completely full. There is a lack of cleaning and maintaining the stormwater system. The roof and downspouts of the former main manufacturing building leak; and a portion of the main manufacturing building collapsed years ago. Surface ponding of precipitation is common inside the main manufacturing building and across the Site due to the poor condition of the Site stormwater system.

It is our understanding that building demolition is currently under consideration by the property owner and therefore it is assumed that existing vaults, sumps, and drains shall be filled and plugged in accordance with building demolition requirements.

The following lists a summary of the outfalls and associated stormwater system conditions, along with the proposed treatment for each:

- OF-1 – This former outfall was connected to the North Truck Dock sump and terminated on the adjacent Bay Wood property. This outfall was abandoned in 2019 when the North Truck Dock sump pump was redirected (see below). The former piping is no longer present on the adjacent property and the area has been significantly developed during site development activities on the neighboring property.
- OF-2 and OF-3 (North Truck Dock, interior vault) – The North Truck Dock is a pumped system. OF-2 has been observed to be filled with sediment and not functioning as an outfall. OF-3 is connected to a vault inside the main manufacturing building, several roof drains, and the North Truck Dock surface pipe. W&W operated a gas-powered generator to operate a pump that appears to connect to outfall OF-3 via the surface piping. The portion of collapsed roof is near the North Truck Dock, the main manufacturing building roof and roof drainage system leaks, and surface ponding of precipitation inside and outside the building is common. Abandonment of outfall OF-2 should not change current drainage, and this outfall is observed to be currently filled. It is expected that W&W will redirect the pumped discharge from the North Truck Dock to allow for the abandonment of OF-3. To satisfactorily address ponding and leaking issues observed in the main manufacturing building, it has been requested that the line running from the interior vault to OF-3 first be cleaned followed by a grout-in-place method of closure for the vault itself. The downspouts sharing the conveyance lines with OF-2 (DS-3, DS-4, DS-5, DS-6, and DS-7) are to be grouted in place where they extend to the subsurface. The conveyance lines to OF-2 and OF-3 are to be cleaned before being grouted in place at the terminus of the outfalls.
- OF-4 (catch basins CB-1 through CB-10) – Portions of the conveyance piping to outfall OF-4 was temporarily plugged by W&W (Figure 1) and several portions of the conveyance piping connected to OF-4 are fractured. Catch basins have been observed as completely full of sediment and non-functional. It is expected that abandonment of outfall OF-4 may result in additional surface water ponding near and around the former equipment area. The conveyance lines and associated catch basins to OF-4 are to be cleaned before OF-4 is grouted in place at the terminus of the outfall.
- OF-5 (catch basins CB-11 through CB-15) – The discharge pipe for outfall OF-5 has not been observed in many years due to shoreline erosion and collapsing pavement surface; it is believed that this outfall is no longer functional. A shoreline berm was built near OF-5 and surface water ponds during precipitation events. Ponded water is pumped by W&W



over the constructed berm to near the former location of outfall OF-5. The conveyance lines connected to OF-5 are to be cleaned before the line is exposed upgradient of the outfall terminus and grouted in place. It is expected that W&W will need to continue to pump stormwater at this location following the abandonment of outfall OF-5.

- OF-6 (catch basins CB-16 through CB-25, and CB-42) – Portions of the conveyance piping connected to outfall OF-6 were observed to be full of sediment and portions are broken. Catch basins in this segment have been observed as completely full of sediment and non-functional. It is expected that abandonment of outfall OF-6 would result in minimal additional surface water ponding near and around the former parking area, former training center, and the former maintenance warehouse. The conveyance lines and associated catch basins to OF-6 are to be cleaned before OF-6 is grouted in place at the terminus of the outfall.
- OF-7 (catch basins CB-34, CB-38 to CB-39) – The segment of this line from CB-34 to OF-7 was observed collapsed and broken during the W&W cleanout work, and portions around CB-38 and CB-39 observed plant root intrusions. The line downstream of the blockage (estimated within a few feet of outlet of CB-34) was not cleaned and a temporary plug was placed at OF-7 at the time of the cleanout work (the plug was no longer observed during a subsequent site visit). This line is to be cleaned before OF-7 is grouted in place at the terminus of the outfall. Abandonment of outfall OF-7 should not change current drainage as this outfall is observed to be obstructed; however, it is likely that residual solids will remain in the system after permanent abandonment and potential future exposure is expected to be controlled via an environmental covenant.
- OF-8 (no associated catch basin) – No catch basin associated with OF-8 has been identified and the line from the upstream obstruction to OF-8 was not cleaned during the W&W cleanout work. Similarly to OF-7, abandonment of outfall OF-8 should not change current drainage as this outfall is observed to be obstructed. The line to OF-8 will be cleaned before OF-8 is grouted in place at the terminus of the outfall.
- OF-9 (catch basins CB-36, CB-37, CB-40, CB-41, unknown 8-inch structures) – The extent of this drainage basin was cleaned during the W&W cleanout work. The catch basins associated with OF-9 are within the ground disturbance area from demolition of the former kiln buildings and are assumed to have been installed in locations that served former site operations and structures that no longer exist. It is expected that abandonment of outfall OF-9 may result in additional surface water ponding in the building demolition area. OF-9 is to be grouted in place at the terminus of the outfall.
- OF-10 (catch basin CB-35) – This system was cleaned during the W&W cleanout work. Catch basin CB-35 and associated piping are in good condition and located on pavement and adjacent to the disturbed soil area from the demolition activities. The conveyance line and associated catch basin to OF-10 will be cleaned before OF-10 is grouted in place at the terminus of the outfall.

Once all components of the system are deemed clear per the cleanout method described above, the outfalls/lines proposed for decommissioning will be permanently abandoned by placing a stopper or temporary plug inside the outfall and filling the area between the plug and the end of pipe with a cement grout. Approximately 10 feet of piping will be filled with cement grout for this permanent plug. This work will need to proceed during a period of low tides to ensure the cement has ample time to set prior to being inundated. As stated above, it is JELD-WEN's opinion that this protocol is the optimal way to ensure no unauthorized discharges with the potential to re-contaminate the adjacent sediments post-remedial action construction will occur.



As stated above, due to the impending potential demolition of the building(s), JELD-WEN will perform the stormwater cleanout profiling and abandonment activities post-demolition. This schedule will still allow for objectives to be met in advance of the marine cleanup, in accordance with the CAP.

Regards,

SLR International Corporation



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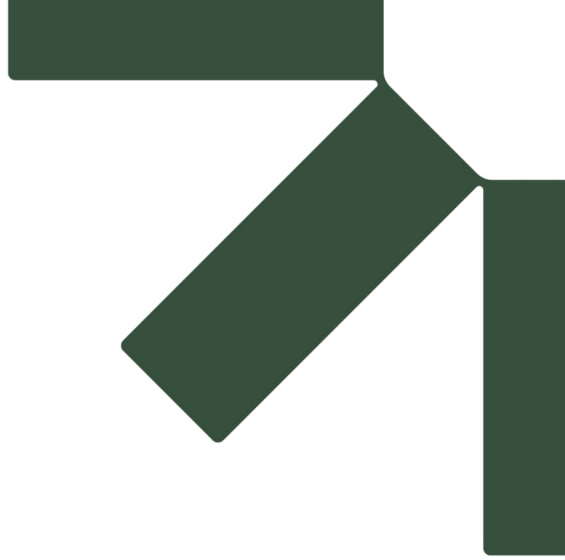


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Attachments Figures

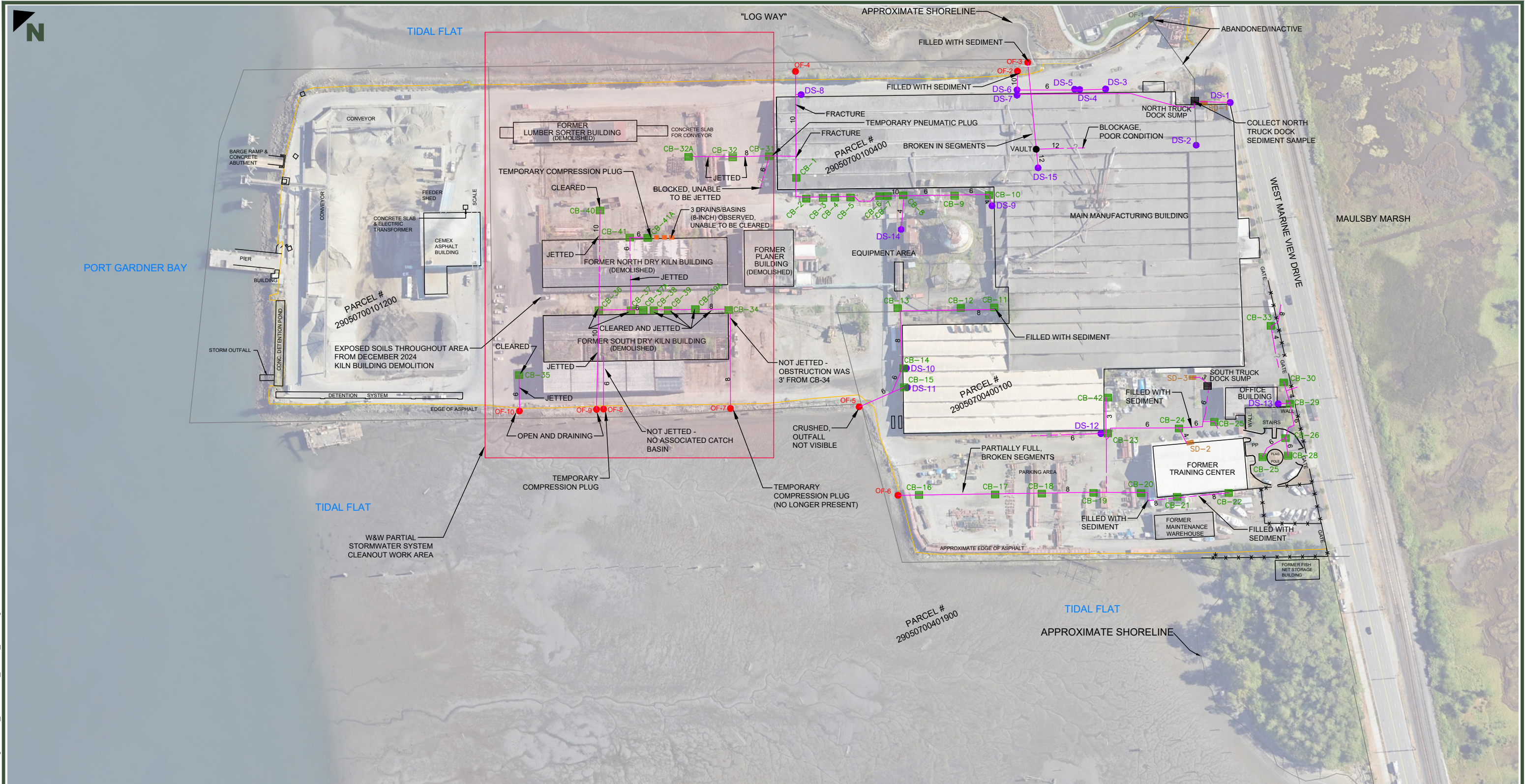
cc Tom Graham, JELD-WEN, Inc.





Figures

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LEGEND

- OF-1 ● OUTFALL LOCATION AND DESIGNATION
- CB-1 ■ CATCH BASIN LOCATION AND DESIGNATION
- DS-1 ● DOWNSPOUT LOCATION AND DESIGNATION
- SD-1 ■ STRIP DRAIN LOCATION AND DESIGNATION
- EXISTING STORMWATER CONVEYANCE LINES AS FIELD CHECKED (APRIL 2018)

0 175 350 525'

NOTES

THE BUILDINGS, SURFACE UTILITIES, EDGE OF PAVEMENT, AND APPROXIMATE SHORELINE SHOWN ON THIS MAP ARE BASED ON A 2006 SURVEY PERFORMED BY WH PACIFIC.

AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, 2024.

OBSERVATIONS OF CENTRAL PORTION CLEANOUT WORK AREA FROM 2024 CLEANOUT ACTIVITIES PERFORMED BY W&W.

OBSERVATIONS FOR PROPOSED EASTERN PORTION CLEANOUT ACTIVITIES FROM 2018 SOURCE CONTROL EVALUATION (SCE) PERFORMED BY JELD-WEN.

JELD WEN SITE
300 WEST MARINE VIEW DRIVE
EVERETT, WASHINGTON

Report
WORK PLAN FOR STORMWATER SYSTEM CLEANOUT

Figure
COMPLETED STORMWATER SYSTEM ASSESSMENT
AND CLEANOUT

Date	MAY 2025	Scale	AS SHOWN	Fig. No.	1
File Name	SW_SITE PLAN_NORD_2022	Project No.	108.020778.00001		

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