STATE OF WASHINGTON
WHATCOM COUNTY SUPERIOR COURT

STATE OF WASHINGTON, DEPARTMENT OF ECOLOGY, Plaintiff, v. PORT OF BELLINGHAM, a Washington Municipal Corporation, Defendant.	NO. _____ CONSENT DECREE

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I. INTRODUCTION

1. The mutual objective of the State of Washington, Department of Ecology (Ecology) and Defendant Port of Bellingham (Port) (Defendant) under this Decree is to provide for remedial action at a facility where there has been a release or threatened release of hazardous substances. This Decree requires Defendant to perform the remedial actions in the Upland Cleanup Unit and the Sediment Cleanup Unit 1 (SCU-1) of the Westman Marine Inc Site (Site) in Blaine, Washington, as depicted in Exhibit A, Figure 2, in accordance with the Cleanup Action Plan as amended by the Cleanup Action Plan Amendment attached as Exhibit B to this Decree.

2. The remaining aquatic portion of the Site, the Sediment Cleanup Unit 2 (SCU-2), is not subject to the terms and conditions of this Decree, nor is liability for that remaining portion of the Site addressed or settled in this Decree.

3. The Parties anticipate that the remedial actions required under the Model Toxics Control Act (MTCA), RCW 70A.305 et seq., at the SCU-2 will be performed under an amendment to this Decree and the CAP.

4. Ecology has determined that these actions are necessary to protect human health and the environment.

5. The Complaint in this action is being filed simultaneously with this Decree. An Answer has not been filed, and there has not been a trial on any issue of fact or law in this case. However, the Parties wish to resolve the issues raised by Ecology's Complaint. In addition, the Parties agree that settlement of these matters without litigation is reasonable and in the public interest, and that entry of this Decree is the most appropriate means of resolving these matters.

6. By signing this Decree, the Parties agree to its entry and agree to be bound by its terms.

7. By entering into this Decree, the Parties do not intend to discharge non-settling parties from any liability they may have with respect to matters alleged in the Complaint. The

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Parties retain the right to seek reimbursement, in whole or in part, from any liable persons for sums expended under this Decree.

8. This Decree shall not be construed as proof of liability or responsibility for any releases of hazardous substances or cost for remedial action nor an admission of any facts; provided, however, that Defendant shall not challenge the authority of the Attorney General and Ecology to enforce this Decree.

9. The Court is fully advised of the reasons for entry of this Decree, and good cause having been shown:

Now, therefore, it is HEREBY ORDERED, ADJUDGED, AND DECREED as follows:

II. JURISDICTION

1. This Court has jurisdiction over the subject matter and over the Parties pursuant to the Model Toxics Control Act (MTCA), RCW 70A.305.

2. Authority is conferred upon the Washington State Attorney General by RCW 70A.305.040(4)(a) to agree to a settlement with any potentially liable person (PLP) if, after public notice and any required public meeting, Ecology finds the proposed settlement would lead to a more expeditious cleanup of hazardous substances. RCW 70A.305.040(4)(b) requires that such a settlement be entered as a consent decree issued by a court of competent jurisdiction.

3. Ecology has determined that a release or threatened release of hazardous substances has occurred at the Site that is the subject of this Decree.

4. Ecology has given notice to Defendant of Ecology's determination that Defendant is a PLP for the Site, as required by RCW 70A.305.020(26) and WAC 173-340-500.

5. The actions to be taken pursuant to this Decree are necessary to protect public health and the environment.

6. This Decree has been subject to public notice and comment.

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7. Ecology finds that this Decree will lead to a more expeditious cleanup of hazardous substances at the Site in compliance with the cleanup standards established under RCW 70A.305.030(2)(e) and WAC 173-340.

8. Defendant has agreed to undertake the actions specified in this Decree and consents to the entry of this Decree under MTCA.

III. PARTIES BOUND

1. This Decree shall apply to and be binding upon the Parties to this Decree, their successors and assigns. The undersigned representative of each party hereby certifies that they are fully authorized to enter into this Decree and to execute and legally bind such party to comply with this Decree. Defendant agrees to undertake all actions required by the terms and conditions of this Decree. No change in ownership or corporate status shall alter Defendant's responsibility under this Decree. Defendant shall provide a copy of this Decree to all agents, contractors, and subcontractors retained to perform work required by this Decree, and shall ensure that all work undertaken by such agents, contractors, and subcontractors complies with this Decree.

IV. DEFINITIONS

1. Unless otherwise specified herein, all definitions in RCW 70A.305.020, WAC 173-204 and WAC 173-340 shall control the meanings of the terms in this Decree.

A. Site: The Site is referred to as Westman Marine Inc, CSID # 2205. The Site constitutes a facility under RCW 70A.305.020(8). The Site is defined by where a hazardous substance, other than a consumer product in consumer use, has been deposited, stored, disposed of, or placed, or otherwise come to be located. The Site is comprised of an Upland Cleanup Unit and Sediment Cleanup Units, as depicted in Exhibit A, Figure 2.

B. Settlement Area: The portion of the Site addressed under this Consent Decree is detailed in Exhibit A, Figure 2 as the Upland Cleanup Unit and SCU-1. The Settlement Area does not include the SCU-2 portion of the Site.

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C. Sediment Cleanup Unit or SCU: Refers to the portions of the Site identified in Exhibit A, Figure 2 as the "Sediment Cleanup Unit" or "SCU". This Site includes two Sediment Cleanup Units. The SCU-1 includes Sediment Management Area (SMA) 1 and SMA 2. SCU-2 is the remainder of the aquatic portion of the Site where the boundaries of SCU-2 will be further defined at a later date.

D. Sediment Management Areas or SMA: Refers to specific portions of the Site within SCU-1. SMA 1 and SMA 2 are identified in the Exhibit A, Figure 2 as "SMA-1" and "SMA-2."

E. Upland Cleanup Unit: Refers to the portion of the Site identified in the Exhibit A, Figure 2 as the "Upland Cleanup Unit."

F. Consent Decree or Decree: Refers to this Consent Decree and each of the exhibits to this Decree. All exhibits are integral and enforceable parts of this Consent Decree.

G. Defendant: Refers to the Port of Bellingham (Port).

H. Parties: Refers to the State of Washington, Department of Ecology and Defendant.

I. 2013 Agreed Order: Refers to Agreed Order No. DE 9001, entered in 2013 by Ecology and the Port for the purpose of conducting a remedial investigation/feasibility study (RI/FS) and preparing a Draft Cleanup Action Plan (DCAP) for the Site.

J. 2023 Agreed Order: Refers to Agreed Order No. 22060, entered in 2023 by Ecology and the Port for the purpose of preparing the documents necessary to complete the engineering and design of the cleanup action for the Upland Cleanup Unit and Sediment Cleanup Unit. Exhibit B of Agreed Order No 22060 is the Site's Cleanup Action Plan.

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K. CAP: Refers to the Final Cleanup Action Plan Westman Marine Cleanup Site Blaine, Washington, (Exhibit B of Agreed Order No. 22060) as amended by the Cleanup Action Plan Amendment attached to this Decree as Exhibit B. The entire CAP (including the Amendment) is considered an integral and enforceable part of this Decree.

V. FINDINGS OF FACT

1. Ecology makes the following findings of fact without any express or implied admissions of such facts by Defendant.

A. Based upon factors currently known to Ecology, the Site is generally located at 218 McMillan Avenue, Blaine Washington, in the southern portion of the Blaine Harbor marine industrial area as shown in Exhibit A, Figure 2.

B. The upland portion of the Site was created in the late 1930's when aquatic lands were dredged to create a boat harbor and small boat marina. The dredged material was used to create an upland industrial area armored with timber bulkheads, although in some areas riprap was used instead of, or in conjunction with, the bulkheads. The marina was expanded several times since its original construction, but the footprint of the upland industrial area has remained largely unchanged. The Site has been used for commercial marine operations since 1949. Between 1961 and 1969, a dock was constructed and the area where the travel lift later existed was dredged. A marine railway was constructed at the Site between 1957 and 1961 to allow the upland maintenance and repair of larger vessels at the Site. A former tide grid was constructed between 1963 and 1965 and used for hull scraping and boat maintenance activities. The grid design allowed small boats to float onto the grid at high tide and at low tide the boats rested on the grid allowing short term boat maintenance to be performed.

C. The Port is the owner of the fee-owned land inboard (east) of the state-established Inner Harbor Line. Filled aquatic land within the state harbor area and the

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aquatic land are state-owned aquatic land, managed by the Port under a 1997 Port Management Agreement.

D. The Site has been used for boatyard/shipyard activities since approximately 1949, originally by Berg Shipbuilding Company and Andrew Berg. The Site has been leased by several tenants since that time, including Westman Industrial Company from 1976 through 1989 and Westman Marine, Inc. from 1989 to 2011.

E. In 2013, Ecology and the Port entered into the 2013 Agreed Order. The 2013 Agreed Order required that the Port: prepare a draft Remedial Investigation work plan; submit a Remedial Investigation data summary technical memorandum; prepare draft Remedial Investigation/Feasibility Study reports; and prepare a draft Cleanup Action Plan (DCAP). The 2013 Agreed Order allowed for possible interim actions at the Site proposed by the Port.

F. In 2014, an Interim Action was completed concurrently with redevelopment activities in the Boundary Fish construction area, in accordance with an Ecology-approved Interim Action Work Plan. Its primary purpose was to remove soil impacted with heavy metals, carcinogenic polycyclic aromatic hydrocarbons (cPAHs), and diesel-range petroleum hydrocarbons that were encountered at concentrations greater than Site soil screening levels. Interim Action construction was completed between October 2013 and March 2014. Approximately 420 tons of soil was excavated, stockpiled, and transported to the Roosevelt Regional Landfill. Compliance monitoring indicated that a small amount of cPAH-contaminated soil, and possibly metals-contaminated soil, was left in place in the southeast corner of the Boundary Fish building footprint.

G. As part of that Interim Action in 2014, based on the initial sampling results, approximately 200 cubic yards of shallow soil was excavated from within the building footprint to a depth of approximately 1 to 2 feet below ground surface (bgs).

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During this excavation, concrete footings from an abandoned portion of the boatyard sidetracks and an approximately 12 ft by 5 ft bottomless concrete vault were exposed. Petroleum-like odor and slight sheen were observed during excavation of the surface of soil inside of the structure, prompting the removal of soil at this location to a depth of 8 feet bgs. Based on a comparison of the analytical results to the preliminary screening levels, the Port conducted additional subsurface investigation near the concrete vault. Data indicated that diesel contamination was limited to the immediate vicinity of the former vault. Approximately 15 additional cubic yards of soil were excavated from at and around the vault location to an approximate depth of 10 feet bgs. Additionally, approximately 15 cubic yards of soil was excavated to a depth of approximately 2.5 feet bgs near the abandoned portion of the boatyard sidetracks to remove cPAH and metals contamination. After these soil removals, there was no field indication of contamination remaining at the concrete vault or near the sidetrack foundations.

H. In August 2020, a Remedial Investigation/Feasibility Study Report (the RI/FS Report) for the Site, prepared by Landau Associates (Landau), was finalized by Ecology after public notice and opportunity to comment.

I. Releases of hazardous substances have occurred at the Site. The following hazardous substances at the Site have been detected at concentrations exceeding MTCA cleanup levels:

- Soil: arsenic, copper, mercury, polychlorinated biphenyls (PCBs), and cPAHs
- Sediment: arsenic, cadmium, copper, lead, mercury, zinc, PCBs, cPAHs, and TBT

J. In 2004, Ecology assigned the Site an overall priority ranking of one (1) under the Washington Ranking Method (WARM) pursuant to MTCA. In 2023, Ecology

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implemented a new site hazard assessment and ranking process (SHARP) tool. Also in 2023, Ecology issued the Site a SHARP rating of "high."

K. As documented in the CAP, Ecology has chosen a final cleanup action to be implemented at the Site that generally consists of excavation and containment (capping) of soil from the Settlement Area, removal and demolition of the upland component of the marine railway system siderails, stormwater collection and control, and institutional controls. In accordance with the CAP, completion of the Pre-Remedial Design Investigation (PRDI) was to further refine the dredging footprint within SCU-1.

VI. WORK TO BE PERFORMED

1. This Decree contains a program designed to protect human health and the environment from the known release, or threatened release, of hazardous substances at, on, or from the Settlement Area of the Site. All remedial actions conducted by Defendant at the Site shall be done in accordance with WAC 173-340 and WAC 173-204.

2. Defendant shall implement the CAP, as amended, at the Settlement Area in accordance with the Scope of Work and Schedule attached to this Decree (Exhibit C). The CAP requires Defendant to:

A. Construct the cleanup action at the Settlement Area in accordance with the design documents. The cleanup action will consist generally of the following elements:

- Removal of the upland component of the marine railway system;
- Excavation and disposal of the upper 2 feet of contaminated soil in the upland where needed for the required caping thickness;
- Caping the upland area with clean soil;
- Implementing institutional controls (Environmental Covenant);
- Removal of the marine railway system, travel lift, docks, pilings, and floats from SCU-1;

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- Replacement of the existing bulkhead within SCU-1; and
- Removal of contaminated marine sediment in SCU-1 from SMA-1 and SMA -2 by dredging
- Replacement of marine railway system and travel lift with two new travel lift systems (30-ton and 200-ton).

B. Prepare an agency review draft Construction Completion Report for Ecology review and approval, followed by preparation of a final Construction Completion Report incorporating Ecology's review comments.

3. All plans or other deliverables submitted by Defendant for Ecology's review and approval under the CAP or Scope of Work and Schedule (Exhibit C) shall, upon Ecology's approval, become integral and enforceable parts of this Decree.

5. If Defendant learns of a significant change in conditions at the Site, including but not limited to a statistically significant increase in contaminant and/or chemical concentrations in soil and/or sediments, Defendant, within seven (7) days of learning of the change in condition, shall notify Ecology in writing of said change and provide Ecology with any reports or records (including laboratory analyses, sampling results) relating to the change in conditions.

6. Pursuant to WAC 173-340-440(11), Defendant shall maintain sufficient and adequate financial assurance mechanisms to cover all costs associated with the operation and maintenance of the remedial action at the Site, including institutional controls, compliance monitoring, and corrective measures.

A. Within sixty (60) days of the effective date of this Decree, Defendant shall submit to Ecology for review and approval an estimate of the costs associated with the operation and maintenance of the remedial action at the Site that it will incur in carrying out the terms of this Decree. Within sixty (60) days after Ecology approves the aforementioned cost estimate, Defendant shall provide proof of financial assurances sufficient to cover those costs in a form acceptable to Ecology.

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B. Defendant shall adjust the financial assurance coverage and provide Ecology's project coordinator with documentation of the updated financial assurance for:

i. Inflation, annually, within thirty (30) days of the anniversary date of the entry of this Decree; or if applicable, the modified anniversary date established in accordance with this section, or if applicable, ninety (90) days after the close of Defendant's fiscal year if the financial test or corporate guarantee is used.

ii. Changes in cost estimates, within thirty (30) days of issuance of Ecology's approval of a modification or revision to the CAP that result in increases to the cost or expected duration of remedial actions. Any adjustments for inflation since the most recent preceding anniversary date shall be made concurrent with adjustments for changes in cost estimates. The issuance of Ecology's approval of a revised or modified CAP will revise the anniversary date established under this section to become the date of issuance of such revised or modified CAP.

C. The Financial Assurance Officer for Ecology shall work with the project coordinators to review and approve financial assurance coverage pursuant to this Decree and make determinations on any adjustments necessary based on the annual reporting. As of the execution date of this Decree, Ecology's Financial Assurance Officer is Joanna Richards, 360-485-5992 or Joanna.Richards@ecy.wa.gov.

7. As detailed in the CAP, institutional controls are required at the Site. Environmental (Restrictive) Covenants will be used to implement the institutional controls.

A. In consultation with Defendant, Ecology will prepare the Environmental (Restrictive) Covenants consistent with WAC 173-340-440, RCW 64.70, and any policies or procedures specified by Ecology. The Environmental (Restrictive) Covenants shall restrict future activities and uses of the Site as agreed to by Ecology and Defendant.

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B. After approval by Ecology, Defendant shall record the Environmental (Restrictive) Covenant for affected properties it owns with the office of the Whatcom County Auditor as detailed in the Schedule (Exhibit C). Defendant shall provide Ecology with the original recorded Environmental (Restrictive) Covenants within thirty (30) days of the recording date.

8. Unless otherwise directed by Ecology, Defendant shall submit to Ecology written quarterly Progress Reports that describe the actions taken during the previous quarter to implement the requirements of this Decree. All Progress Reports shall be submitted by the tenth (10th) day of the month in which they are due after the effective date of this Decree. Unless otherwise specified in writing by Ecology, Progress Reports and any other documents submitted pursuant to this Decree shall be sent via email to Ecology's project coordinator. The Progress Reports shall include the following:

A. A list of on-site activities that have taken place during the quarter.

B. Description of any sample results which deviate from the norm.

C. Detailed description of any deviations from required tasks not otherwise documented in project plans or amendment requests.

D. Description of all deviations from the Scope of Work and Schedule (Exhibit C) during the current quarter and any planned deviations in the upcoming quarter.

E. For any deviations in schedule, a plan for recovering lost time and maintaining compliance with the schedule.

F. All raw data (including laboratory analyses) received during the previous quarter (if not previously submitted to Ecology), together with a detailed description of the underlying samples collected.

G. A list of planned activities for the upcoming quarter.

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9. Except in the case of an emergency, Defendant agrees not to perform any remedial actions at the Site outside the scope of this Decree without prior written approval of Ecology. In the case of an emergency, Defendant must notify Ecology of the event and remedial action(s) as soon as practical, but no later than twenty-four (24) hours after discovery of the emergency.

VII. DESIGNATED PROJECT COORDINATORS

1. The project coordinator for Ecology is:

Beau Johnson
Toxics Cleanup Program – Northwest Region Office
P.O. Box 330316
Shoreline, WA 98133
206-594-0094
bejo461@ecy.wa.gov

2. The project coordinator for Defendant is:

Ben Howard
Remediation Program Manager
Port of Bellingham
1801 Roeder Avenue
Bellingham, WA 98225
360-676-2500
BenH@portofbellingham.com

3. Each project coordinator shall be responsible for overseeing the implementation of this Decree. Ecology's project coordinator will be Ecology's designated representative for the Site. To the maximum extent possible, communications between Ecology and Defendant and all documents, including reports, approvals, and other correspondence concerning the activities performed pursuant to the terms and conditions of this Decree shall be directed through the project coordinators. The project coordinators may designate, in writing, working level staff contacts for all or portions of the implementation of the work to be performed required by this Decree.

4. Any party may change its respective project coordinator. Written notification shall be given to the other party at least ten (10) calendar days prior to the change.

VIII. PERFORMANCE

1. Except as otherwise provided for by RCW 18.43 and 18.220, all geologic and hydrogeologic work performed pursuant to this Decree shall be under the supervision and direction of a geologist or hydrogeologist licensed by the State of Washington or under the direct supervision of an engineer registered by the State of Washington.

2. Except as otherwise provided for by RCW 18.43.130, all engineering work performed pursuant to this Decree shall be under the direct supervision of a professional engineer registered by the State of Washington.

3. Except as otherwise provided for by RCW 18.43.130, all construction work performed pursuant to this Decree shall be under the direct supervision of a professional engineer registered by the State of Washington or a qualified technician under the direct supervision of a professional engineer registered by the State of Washington.

4. As required by RCW 18.43 and 18.220, any documents submitted containing geologic, hydrogeologic, or engineering work shall be under the seal of an appropriately licensed professional.

5. Defendant shall notify Ecology in writing of the identity of any engineers and geologists, contractors and subcontractors, and other key personnel to be used in carrying out the terms of this Decree, in advance of their involvement at the Site.

IX. ACCESS

1. Ecology or any Ecology authorized representative shall have access to enter and freely move about all property at the Site that Defendant either owns, controls, or has access rights to at all reasonable times for the purposes of, *inter alia*: inspecting records, operation logs, and contracts related to the work being performed pursuant to this Decree; reviewing Defendant's progress in carrying out the terms of this Decree; conducting such tests or collecting such samples as Ecology may deem necessary; using a camera, sound recording, or other

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documentary type equipment to record work done pursuant to this Decree; and verifying the data submitted to Ecology by Defendant.

2. Nothing in this Decree is intended by the Defendant to waive any right it may have under applicable law to limit disclosure of documents protected by the attorney work-product privilege and/or the attorney-client privilege. If Defendant withholds any requested records based on an assertion of privilege, it shall provide Ecology with a privilege log specifying the records withheld and the applicable privilege. No Site-related data collected pursuant to this Decree shall be considered privileged.

3. Defendant shall make all reasonable efforts to secure access rights for those properties within the Site not owned or controlled by Defendant where remedial activities or investigations will be performed pursuant to this Decree.

4. Ecology or any Ecology authorized representative shall give reasonable notice before entering any Site property owned or controlled by Defendant unless an emergency prevents such notice. All Parties who access the Site pursuant to this section shall comply with any applicable health and safety plans. Ecology employees and their representatives shall not be required to sign any liability release or waiver as a condition of Site property access.

X. SAMPLING, DATA SUBMITTAL, AND AVAILABILITY

1. With respect to the implementation of this Decree, Defendant shall make the results of all sampling, laboratory reports, and/or test results generated by it or on its behalf available to Ecology by submitting data as detailed in this section. Pursuant to WAC 173-340-840(5), all sampling data shall be submitted to Ecology in both printed and electronic formats in accordance with paragraph 8 of Section VI (Work to be Performed), Ecology's Toxics Cleanup Program Policy 840 (Data Submittal Requirements), and/or any subsequent procedures specified by Ecology for data submittal.

2. If requested by Ecology, Defendant shall allow Ecology and/or its authorized representative to take split or duplicate samples of any samples collected by Defendant pursuant

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to the implementation of this Decree. Defendant shall notify Ecology seven (7) days in advance of any sample collection or work activity at the Site. Ecology shall, upon request, allow Defendant and/or its authorized representative to take split or duplicate samples of any samples collected by Ecology pursuant to the implementation of this Decree, provided that doing so does not interfere with Ecology's sampling. Without limitation on Ecology's rights under Section IX (Access), Ecology shall notify Defendant prior to any sample collection activity unless an emergency prevents such notice.

3. In accordance with WAC 173-340-830(2)(a), all hazardous substance analyses shall be conducted by a laboratory accredited under WAC 173-50 for the specific analyses to be conducted, unless otherwise approved by Ecology.

XI. ACCESS TO INFORMATION

1. Defendant shall provide to Ecology, upon request, copies of all records, reports, documents, and other information (including records, reports, documents, and other information in electronic form) (hereinafter referred to as "Records") within Defendant's possession or control or that of their contractors or agents relating to activities at the Site or to the implementation of this Decree, including, but not limited to, sampling, analysis, chain of custody records, manifests, trucking logs, receipts, reports, sample traffic routing, correspondence, or other documents or information regarding the work. Defendant shall also make available to Ecology, for purposes of investigation, information gathering, or testimony, their employees, agents, or representatives with knowledge of relevant facts concerning the performance of the work.

2. Nothing in this Decree is intended to waive any right Defendant may have under applicable law to limit disclosure of Records protected by the attorney work-product privilege and/or the attorney-client privilege. If Defendant withholds any requested Records based on an assertion of privilege, Defendant shall provide Ecology with a privilege log specifying the

Records withheld and the applicable privilege. No Site-related data collected pursuant to this Decree shall be considered privileged, including: (1) any data regarding the Site, including, but not limited to, all sampling, analytical, monitoring, hydrogeologic, scientific, chemical, radiological, biological, or engineering data, or the portion of any other record that evidences conditions at or around the Site; or (2) the portion of any Record that Defendant is required to create or generate pursuant to this Order.

3. Notwithstanding any provision of this Order, Ecology retains all of its information gathering and inspection authorities and rights, including enforcement actions related thereto, under any other applicable statutes or regulations.

XII. RETENTION OF RECORDS

1. During the pendency of this Decree, and for ten (10) years from the date this Decree is no longer in effect as provided in Section XXVI (Duration of Decree), Defendant shall preserve all records, reports, documents, and underlying data in its possession relevant to the implementation of this Decree and shall insert a similar record retention requirement into all contracts with project contractors and subcontractors. Upon request of Ecology, Defendant shall make all records available to Ecology and allow access for review within a reasonable time.

XIII. TRANSFER OF INTEREST IN PROPERTY

1. No voluntary conveyance or relinquishment of title, easement, leasehold, or other interest in any portion of the Site shall be consummated by Defendant without provision for continued operation and maintenance of any containment system, treatment system, and/or monitoring system installed or implemented pursuant to this Decree.

2. Prior to Defendant's transfer of any interest in all or any portion of the Settlement Area, and during the effective period of this Decree, Defendant shall provide a copy of this Decree to any prospective purchaser, lessee, transferee, assignee, or other successor in said interest; and, at least thirty (30) days prior to any transfer, Defendant shall notify Ecology of said transfer. Upon its transfer of any interest, Defendant shall notify all transferees of the restrictions

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on the activities and uses of the property under this Decree and incorporate any such use restrictions into the transfer documents.

XIV. RESOLUTION OF DISPUTES

1. In the event that Defendant elects to invoke dispute resolution, Defendant must utilize the procedure set forth below.

A. Upon the triggering event (receipt of Ecology's project coordinator's written decision or an itemized billing statement), Defendant has fourteen (14) calendar days within which to notify Ecology's project coordinator in writing of its dispute (Informal Dispute Notice).

B. The Parties' project coordinators shall then confer in an effort to resolve the dispute informally. The parties shall informally confer for up to fourteen (14) calendar days from receipt of the Informal Dispute Notice. If the project coordinators cannot resolve the dispute within those 14 calendar days, then within seven (7) calendar days Ecology's project coordinator shall issue a written decision (Informal Dispute Decision) stating: the nature of the dispute; the Defendant's position with regards to the dispute; Ecology's position with regards to the dispute; and the extent of resolution reached by informal discussion.

C. Defendant may then request regional management review of the dispute. Defendant must submit this request (Formal Dispute Notice) in writing to the Northwest Region Toxics Cleanup Section Manager within seven (7) calendar days of receipt of Ecology's Informal Dispute Decision. The Formal Dispute Notice shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Party's position with respect to the dispute; and the information relied upon to support its position.

D. The Section Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Decision on Dispute) within thirty (30) calendar days of receipt of the Formal Dispute Notice.

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E. If Defendant finds Ecology's Regional Section Manager's decision of the disputed matter unacceptable, Defendant may then request final management review of that decision. Defendant must submit this request (Final Review Request) in writing to the Toxics Cleanup Program Manager within seven (7) calendar days of Defendant's receipt of the Decision on Dispute. The Final Review Request shall include a written statement of dispute setting forth: the nature of the dispute; the disputing Defendant's position with respect to the dispute; and the information relied upon to support its position.

F. Ecology's Toxics Cleanup Program Manager shall conduct a review of the dispute and shall issue a written decision regarding the dispute (Final Decision on Dispute) within thirty (30) calendar days of receipt of the Final Review Request. The Toxics Cleanup Program Manager's decision shall be Ecology's final decision on the disputed matter.

2. If Ecology's Final Decision on Dispute is unacceptable to Defendant, Defendant has the right to submit the dispute to the Court for resolution. The Parties agree that one judge should retain jurisdiction over this case and shall, as necessary, resolve any dispute arising under this Decree. Under RCW 70A.305.070, Ecology's investigative and remedial decisions shall be upheld unless they are arbitrary and capricious.

3. The Parties agree to only utilize the dispute resolution process in good faith and agree to expedite, to the extent possible, the dispute resolution process whenever it is used. Where either party utilizes the dispute resolution process in bad faith or for purposes of delay, the other party may seek sanctions.

4. Implementation of these dispute resolution procedures shall not provide a basis for delay of any activities required in this Decree, unless Ecology agrees in writing to a schedule extension or the Court so orders.

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5. In case of a dispute, failure to either proceed with the work required by this Decree or timely invoke dispute resolution may result in Ecology's determination that insufficient progress is being made in preparation of a deliverable, and may result in Ecology undertaking the work under Section XXIII (Implementation of Remedial Action).

XV. AMENDMENT OF DECREE

1. The Parties may agree to minor changes to the work to be performed without formally amending this Decree. Minor changes will be documented in writing by Ecology.

2. Substantial changes to the work to be performed shall require formal amendment of this Decree. This Decree may only be formally amended by a written stipulation among the Parties that is entered by the Court, or by order of the Court. Ecology will provide its written consent to a formal amendment only after public notice and opportunity to comment on the formal amendment. Such amendment shall become effective upon entry by the Court. Agreement to amend the Decree shall not be unreasonably withheld by any party.

3. When requesting a change to the Decree, Defendant shall submit a written request to Ecology for approval. Ecology shall indicate its approval or disapproval in writing and in a timely manner after the written request is received. If Ecology determines that the change is substantial, then the Decree must be formally amended. Reasons for the disapproval of a proposed change to this Decree shall be stated in writing. If Ecology does not agree to the requested change, the disagreement may be addressed through the dispute resolution procedures described in Section XII (Resolution of Disputes).

XVI. EXTENSION OF SCHEDULE

1. Defendant's request for an extension of schedule shall be granted only when a request for an extension is submitted in a timely fashion, generally at least thirty (30) days prior to expiration of the deadline for which the extension is requested, and good cause exists for granting the extension. All extensions shall be requested in writing. The request shall specify:

A. The deadline that is sought to be extended.

B. The length of the extension sought.

C. The reason(s) for the extension.

D. Any related deadline or schedule that would be affected if the extension were granted.

2. The burden shall be on Defendant to demonstrate to the satisfaction of Ecology that the request for such extension has been submitted in a timely fashion and that good cause exists for granting the extension. Good cause may include, but may not be limited to:

A. Circumstances beyond the reasonable control and despite the due diligence of Defendant including delays caused by unrelated third parties or Ecology, such as (but not limited to) delays by Ecology in reviewing, approving, or modifying documents submitted by Defendant.

B. A shelter in place or work stoppage mandated by state or local government order due to public health and safety emergencies.

C. Acts of God, including fire, flood, blizzard, extreme temperatures, storm, or other unavoidable casualty.

D. Endangerment as described in Section XVII (Endangerment).

3. However, neither increased costs of performance of the terms of this Decree nor changed economic circumstances shall be considered circumstances beyond the reasonable control of Defendant.

4. Ecology shall act upon any Defendant's written request for extension in a timely fashion. Ecology shall give Defendant written notification of any extensions granted pursuant to this Decree. A requested extension shall not be effective until approved by Ecology or, if required, by the Court. Unless the extension is a substantial change, it shall not be necessary to amend this Decree pursuant to Section XV (Amendment of Decree) when a schedule extension is granted.

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5. At Defendant's request an extension shall only be granted for such period of time as Ecology determines is reasonable under the circumstances. Ecology may grant schedule extensions exceeding ninety (90) days only as a result of one of the following:

A. Delays in the issuance of a necessary permit which was applied for in a timely manner.

B. Other circumstances deemed exceptional or extraordinary by Ecology.

C. Endangerment as described in Section XVII (Endangerment).

XVII. ENDANGERMENT

1. In the event Ecology determines that any activity being performed at the Site under this Decree is creating or has the potential to create a danger to human health or the environment, Ecology may direct Defendant to cease such activities for such period of time as it deems necessary to abate the danger. Defendant shall immediately comply with such direction.

2. In the event Defendant determines that any activity being performed at the Site under this Decree is creating or has the potential to create a danger to human health or the environment, Defendant may cease such activities. Defendant shall notify Ecology's project coordinator as soon as possible, but no later than twenty-four (24) hours after making such determination or ceasing such activities. Upon Ecology's direction, Defendant shall provide Ecology with documentation of the basis for the determination or cessation of such activities. If Ecology disagrees with Defendant's cessation of activities, it may direct Defendant to resume such activities.

3. If Ecology concurs with or orders a work stoppage pursuant to this section, Defendant's obligations with respect to the ceased activities shall be suspended until Ecology determines the danger is abated, and the time for performance of such activities, as well as the time for any other work dependent upon such activities, shall be extended, in accordance with Section XVI (Extension of Schedule), for such period of time as Ecology determines is reasonable under the circumstances.

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4. Nothing in this Decree shall limit the authority of Ecology, its employees, agents, or contractors to take or require appropriate action in the event of an emergency.

XVIII. COVENANT NOT TO SUE

1. Covenant Not to Sue: In consideration of Defendant's compliance with the terms and conditions of this Decree, Ecology covenants not to institute legal or administrative actions against Defendant regarding the release or threatened release of hazardous substances at the Settlement Area, as detailed in Exhibit A, Figure 2, which includes only the hazardous substances detailed in Section V.1.I (Findings of Fact). This Covenant Not to Sue does not cover any other hazardous substances or area. Ecology retains all of its authority relative to any hazardous substances or area not covered by this Decree.

This Covenant Not to Sue shall have no applicability whatsoever to:

A. Criminal liability.

B. Liability for damages to natural resources.

C. Any Ecology action, including cost recovery, against PLPs not a party to this Decree.

2. Pursuant to RCW 70A.305.040(4)(c), the Court shall amend this Covenant Not to Sue if factors not known at the time of entry of this Decree are discovered and present a previously unknown threat to human health or the environment.

3. Reopeners: Ecology specifically reserves the right to institute legal or administrative action against Defendant to require it to perform additional remedial actions at the Settlement Area and to pursue appropriate cost recovery, pursuant to RCW 70A.305.050, under any of the following circumstances:

A. Upon Defendant's failure to meet the requirements of this Decree.

B. Failure of the remedial action to meet the cleanup standards identified in the CAP.

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C. Upon Ecology's determination that remedial action beyond the terms of this Decree is necessary to abate an imminent and substantial endangerment to human health or the environment.

D. Upon the availability of information previously unknown to Ecology regarding the Settlement Area factors including the nature, quantity, migration, pathway, or mobility of hazardous substances, and Ecology's determination, in light of this information, that further remedial action is necessary at the Settlement Area to protect human health or the environment.

E. Upon Ecology's determination that additional remedial actions are necessary to achieve cleanup standards within the reasonable restoration time frame set forth in the CAP.

4. Except in the case of an emergency, prior to instituting legal or administrative action against Defendant pursuant to this section, Ecology shall provide Defendant with fifteen (15) calendar days' notice of such action.

XIX. CONTRIBUTION PROTECTION

1. With regard to claims for contribution against Defendant, the Parties agree that Defendant is entitled to protection against claims for contribution for matters addressed in this Decree as provided by RCW 70A.305.040(4)(d).

XX. INDEMNIFICATION

1. Defendant agrees, to the extent permitted by law, to indemnify and save and hold the State of Washington, its employees, and agents harmless from any and all claims or causes of action (1) for death or injuries to persons, or (2) for loss or damage to property to the extent arising from or on account of acts or omissions of Defendant, its officers, employees, agents, or contractors in entering into and implementing this Decree. However, Defendant shall not indemnify the State of Washington nor save nor hold its employees and agents harmless from any claims or causes of action to the extent arising out of the negligent acts or omissions of the

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State of Washington, or the employees or agents of the State, in entering into or implementing this Decree.

XXI. COMPLIANCE WITH APPLICABLE LAWS

1. *Applicable Law.* All actions carried out by Defendant pursuant to this Decree shall be done in accordance with all applicable federal, state, and local requirements, including requirements to obtain necessary permits, except as provided in RCW 70A.305.090. The permits or specific federal, state, or local requirements that the agency has determined are applicable and that are known at the time of the execution of this Decree have been identified in Exhibit D. Defendant has a continuing obligation to identify additional applicable federal, state, and local requirements which apply to actions carried out pursuant to this Decree, and to comply with those requirements. As additional federal, state, and local requirements are identified by Ecology or the Defendant, Ecology will document in writing if they are applicable to actions carried out pursuant to this Decree, and the Defendants must implement those requirements.

2. *Relevant and Appropriate Requirements.* All actions carried out by Defendant pursuant to this Decree shall be done in accordance with relevant and appropriate requirements identified by Ecology. At this time, no relevant and appropriate requirements have been identified as being applicable to the actions required by this Decree. If additional relevant and appropriate requirements are identified by Ecology or the Defendant, Ecology will document in writing if they are applicable to actions carried out pursuant to this Decree and the Defendant must implement those requirements.

3. Pursuant to RCW 70A.305.090(1), Defendant may be exempt from the procedural requirements of RCW 70A.15, 70A.205, 70A.300, 77.55, 90.48, and 90.58 and of any laws requiring or authorizing local government permits or approvals. However, Defendant shall comply with the substantive requirements of such permits or approvals. For permits and approvals covered under RCW 70A.305.090(1) that have been issued by local government, the Parties agree that Ecology has the non-exclusive ability under this Decree to enforce those local

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government permits and/or approvals. The exempt permits or approvals and the applicable substantive requirements of those permits or approvals, as they are known at the time of the execution of this Decree, have been identified in Exhibit E.

4. Defendant has a continuing obligation to determine whether additional permits or approvals addressed in RCW 70A.305.090(1) would otherwise be required for the remedial action under this Decree. In the event either Ecology or Defendant determines that additional permits or approvals addressed in RCW 70A.305.090(1) would otherwise be required for the remedial action under this Decree, it shall promptly notify the other party of its determination. Ecology shall determine whether Ecology or Defendant shall be responsible to contact the appropriate state and/or local agencies. If Ecology so requires, Defendant shall promptly consult with the appropriate state and/or local agencies and provide Ecology with written documentation from those agencies of the substantive requirements those agencies believe are applicable to the remedial action. Ecology shall make the final determination on the additional substantive requirements that must be met by Defendant and on how Defendant must meet those requirements. Ecology shall inform Defendant in writing of these requirements. Once established by Ecology, the additional requirements shall be enforceable requirements of this Decree. Defendant shall not begin or continue the remedial action potentially subject to the additional requirements until Ecology makes its final determination.

5. Pursuant to RCW 70A.305.090(2), in the event Ecology determines that the exemption from complying with the procedural requirements of the laws referenced in RCW 70A.305.090(1) would result in the loss of approval from a federal agency that is necessary for the state to administer any federal law, the exemption shall not apply and Defendant shall comply with both the procedural and substantive requirements of the laws referenced in RCW 70A.305.090(1), including any requirements to obtain permits or approvals.

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XXII. REMEDIAL ACTION COSTS

1. Defendant shall pay to Ecology costs incurred by Ecology pursuant to this Decree and consistent with WAC 173-340-550(2). These costs shall include work performed by Ecology or its contractors for, or on, the Site under RCW 70A.305, including remedial actions and Decree preparation, negotiation, oversight, and administration. These costs shall include work performed both prior to and subsequent to the entry of this Decree. Ecology's costs shall include costs of direct activities and support costs of direct activities as defined in WAC 173-340-550(2). For all costs incurred, Defendant shall pay the required amount within thirty (30) days of receiving from Ecology an itemized statement of costs that includes a summary of costs incurred, an identification of involved staff, and the amount of time spent by involved staff members on the project. A general statement of work performed will be provided upon request. Itemized statements shall be prepared quarterly. Pursuant to WAC 173-340-550(4), failure to pay Ecology's costs within ninety (90) days of receipt of the itemized statement of costs will result in interest charges at the rate of twelve percent (12%) per annum, compounded monthly.

2. In addition to other available relief, pursuant to RCW 19.16.500, Ecology may utilize a collection agency and/or, pursuant to RCW 70A.305.060, file a lien against real property subject to the remedial actions to recover unreimbursed remedial action costs.

XXIII. IMPLEMENTATION OF REMEDIAL ACTION

1. If Ecology determines that the Defendant has failed to make sufficient progress or failed to implement the remedial action, in whole or in part, Ecology may, after notice to Defendant, perform any or all portions of the remedial action or at Ecology's discretion allow the Defendant opportunity to correct. In an emergency, Ecology is not required to provide notice to Defendant, or an opportunity for dispute resolution. The Defendant shall reimburse Ecology for the costs of doing such work in accordance with Section XXII (Remedial Action Costs).

2. Except where necessary to abate an emergency or where required by law, the Defendant shall not perform any remedial actions at the Site outside those remedial actions

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required by this Decree to address the contamination that is the subject of this Decree, unless Ecology concurs, in writing, with such additional remedial actions pursuant to Section XV (Amendment of Decree). In the event of an emergency, or where actions are taken as required by law, Defendant must notify Ecology in writing of the event and remedial action planned or taken as soon as practical but no later than within twenty-four (24) hours of the discovery of the event.

3. The parties hereby incorporate into this Consent Decree the previous remedial actions described in Section V (Findings of Fact). Reimbursement for specific project tasks under a grant agreement with Ecology is contingent upon a determination by Ecology's Toxics Cleanup Program that the retroactive costs are eligible under WAC 173-332A-320(6), the work performed complies with the substantive requirements of WAC 173-340, and the work is consistent with the remedial actions required under this Consent Decree. The costs associated with Ecology's determination on the past independent remedial actions described in Section V (Findings of Fact) are recoverable under this Consent Decree.

XXIV. PERIODIC REVIEW

1. So long as remedial action continues at the Site, the Parties agree to review the progress of remedial action at the Site, and to review the data accumulated as a result of monitoring the Site as often as is necessary and appropriate under the circumstances. Unless otherwise agreed to by Ecology, at least every five (5) years after the initiation of cleanup action at the Site the Parties shall confer regarding the status of the Site and the need, if any, for further remedial action at the Site. At least ninety (90) days prior to each periodic review, Defendant shall submit a report to Ecology that documents whether human health and the environment are being protected based on the factors set forth in WAC 173-340-420(4). Under Section XVIII (Covenant Not to Sue), Ecology reserves the right to require further remedial action at the Site under appropriate circumstances. This provision shall remain in effect for the duration of this Decree.

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XXV. PUBLIC PARTICIPATION

1. Ecology shall maintain the responsibility for public participation at the Site. However, Defendant shall cooperate with Ecology, and shall:

A. If agreed to by Ecology, develop appropriate mailing lists, prepare drafts of public notices and fact sheets at important stages of the remedial action, such as the submission of work plans, remedial investigation/feasibility study reports, cleanup action plans, and engineering design reports. As appropriate, Ecology will edit, finalize, and distribute such fact sheets and prepare and distribute public notices of Ecology's presentations and meetings.

B. Notify Ecology's project coordinator prior to the preparation of all press releases and fact sheets, and before meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. Likewise, Ecology shall notify Defendant prior to the issuance of all press releases and fact sheets related to remedial action work to be performed at the Site, and before meetings related to remedial action work to be performed at the Site with the interested public and/or local governments. For all press releases, fact sheets, meetings, and other outreach efforts by Defendant that do not receive prior Ecology approval, Defendant shall clearly indicate to its audience that the press release, fact sheet, meeting, or other outreach effort was not sponsored or endorsed by Ecology.

C. When requested by Ecology, participate in public presentations on the progress of the remedial action at the Site. Participation may be through attendance at public meetings to assist in answering questions, or as a presenter.

E. When requested by Ecology, arrange and/or continue information repositories at the following locations:

i. Blaine Library
610 3rd Street

Blaine, Washington 98230

At a minimum, copies of all public notices, fact sheets, and documents relating to public comment periods shall be promptly placed in this repository. A copy of all documents related to this Site shall be maintained at Ecology's Northwest Region Office in Shoreline, Washington.

XXVI. DURATION OF DECREE

1. The remedial program required pursuant to this Decree shall be maintained and continued until Defendant has received written notification from Ecology that the requirements of this Decree have been satisfactorily completed. This Decree shall remain in effect until dismissed by the Court. When dismissed, Section XII (Retention of Records), Section XVIII (Covenant Not to Sue), Section XIX (Contribution Protection), Section XX (Indemnification), and Section XXVII (Claims Against the State) shall survive.

XXVII. CLAIMS AGAINST THE STATE

1. Defendant hereby agrees that it will not seek to recover any costs accrued in implementing the remedial action required by this Decree from the State of Washington or any of its agencies; and further, that Defendant will make no claim against the State Toxics Control Account, the Local Toxics Control Account, the Environmental Legacy Stewardship Account, or a MTCA Cleanup Settlement Account for any costs incurred in implementing this Decree. Except as provided above, however, Defendant expressly reserves its right to seek to recover any costs incurred in implementing this Decree from any other PLP. This section does not limit or address funding that may be provided under WAC 173-322A.

XXVIII. EFFECTIVE DATE

1. This Decree is effective upon the date it is entered by the Court.

XXIX. WITHDRAWAL OF CONSENT

1. If the Court withholds or withdraws its consent to this Decree, it shall be null and void at the option of any party and the accompanying Complaint shall be dismissed without costs and without prejudice. In such an event, no party shall be bound by the requirements of this Decree.

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

_____
NHI IRWIN
Program Manager
Toxics Cleanup Program
360-791-5514

Date: _____

NICHOLAS W. BROWN
Attorney General

_____
IVY ANDERSON, WSBA #30652
Assistant Attorney General
360-586-4619

Date: _____

PORT OF BELLINGHAM

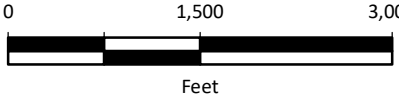
_____
Tiffany DeSimone
Interim Executive Director
Port of Bellingham
360-676-2500

Date: _____

ENTERED this _____ day of _____ 20____.

_____
JUDGE
Whatcom County Superior Court

EXHIBIT A



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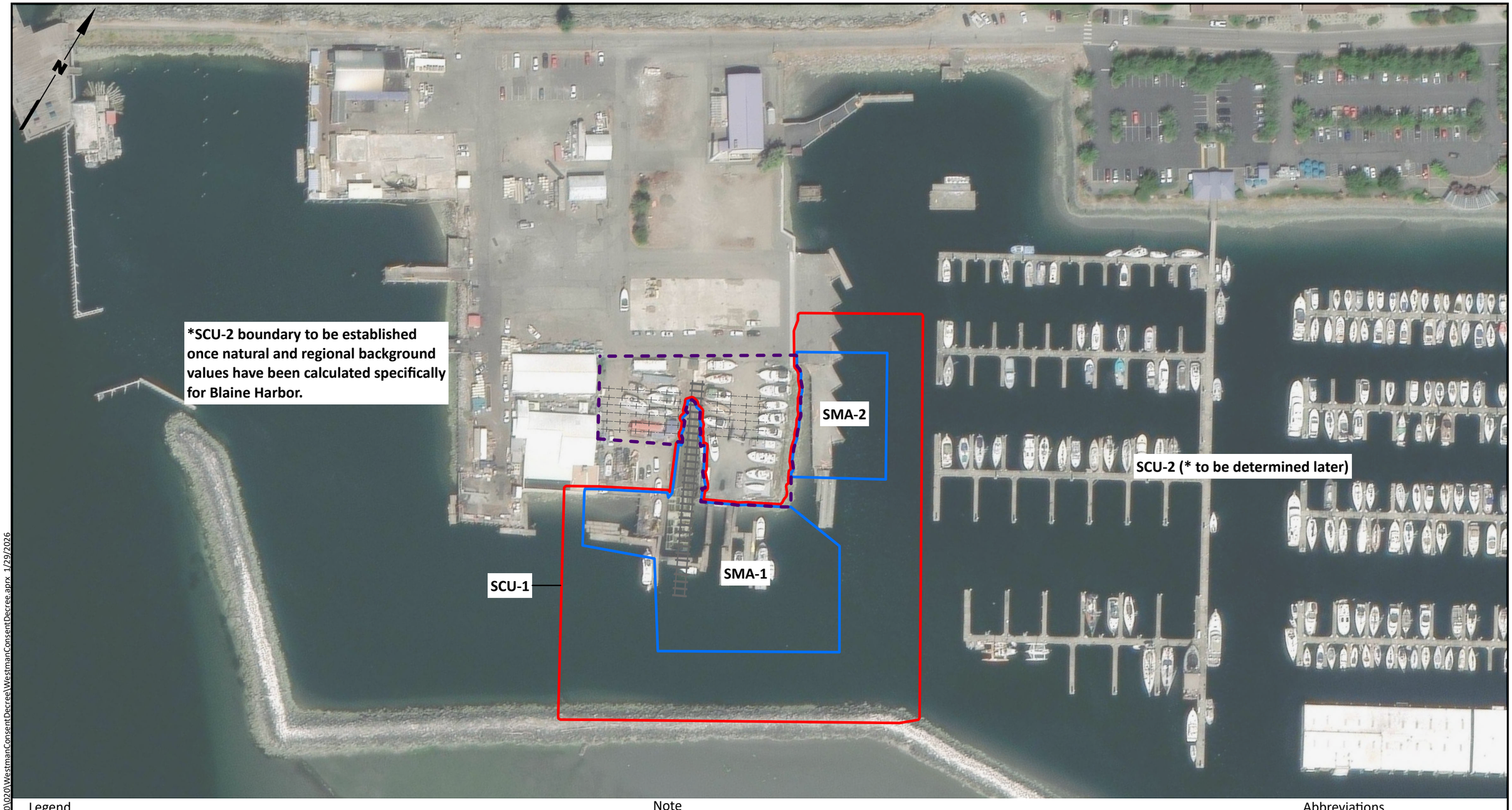
LANDAU ASSOCIATES

Westman Marine Cleanup Site Engineering Design Report Blaine, Washington	**Exhibit A: Vicinity Map**	Figure 1



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Legend

- Upland Cleanup Unit
- Sediment Cleanup Unit
- Sediment Management Units

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 125 250

Scale in Feet

Abbreviations

SCU = Sediment Cleanup Unit
SMU = Sediment Management Unit

LANDAU ASSOCIATES

Westman Marine Cleanup Site Engineering Design Report Blaine, Washington	**Exhibit A: Upland and Sediment Cleanup Units**	Figure 2

EXHIBIT B

Exhibit B
First Amendment to Cleanup Action Plan
Westman Marine Cleanup Site
Blaine, Washington

First Amendment to CLEANUP ACTION PLAN

[The Cleanup Action Plan (CAP) is amended as follows:]

TABLE OF CONTENTS

[No changes except for those in the sections shown in the Table of Contents below.]

FIGURES

TABLE

APPENDIX

LIST OF ABBREVIATIONS AND ACRONYMS

ARARs ..... applicable or relevant and appropriate requirements
CAP ..... cleanup action plan
cm ..... centimeters
CMP ..... compliance monitoring plan
cPAH ..... carcinogenic polycyclic aromatic hydrocarbon
CSL ..... cleanup screening level
CSM ..... conceptual site model
CUL ..... cleanup level
DCA ..... disproportionate cost analysis
DNR ..... Washington Department of Natural Resources
Ecology ..... Washington State Department of Ecology
EMNR ..... enhanced monitored natural recovery
IHS ..... indicator hazardous substance
ft ..... foot/feet
FS ..... feasibility study
MNR ..... monitored natural recovery
MTCA ..... Model Toxics Control Act
NPDES ..... National Pollutant Discharge Elimination System
PBT ..... persistent bioaccumulative toxin
PCB ..... polychlorinated biphenyl
Port ..... Port of Bellingham
PQL ..... practical quantitation limit
PRDI ..... pre-remedial design investigation
RAO ..... remedial action objective
RCRA ..... Resource Conservation and Recovery Act
RCW ..... Revised Code of Washington
RI ..... remedial investigation
RI/FS ..... remedial investigation/feasibility study
SCO ..... sediment cleanup objective
SCU ..... sediment cleanup unit
Site ..... Westman Marine Cleanup Site
SL ..... screening level
SMA ..... sediment management area
SMS ..... Sediment Management Standards
SVOC ..... semivolatile organic compound
TBT ..... tributyltin
VOC ..... volatile organic compound
WAC ..... Washington Administrative Code
Westman Marine ..... Westman Marine Inc.

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1.0 INTRODUCTION AND SITE BACKGROUND

[No change, except for the following: Additional text inserted at the end of this Section, additional text inserted at the end of Subsection 1.3, and the addition of new Subsection 1.5.]

A Pre-Remedial Design Investigation (PRDI) was conducted in 2023 to provide additional design-level data to refine the definition of the Sediment Cleanup Unit and further inform elements required as part of the remedial design. This Cleanup Action Plan (CAP) amendment summarizes the results of the PRDI and other Site assessments, including the resulting revisions to remedial strategies and specific design elements, which have been determined in coordination with Washington State Department of Ecology (Ecology) representatives.

1.3 Current Site Conditions, Features, and Uses

[No change, except for the following is inserted at the end of this Subsection.]

As of 2024, the tenant has vacated the Site and no industrial or commercial operations have been conducted since that time. The Site currently remains locked from public access. Aligned with the approved remedial strategy for the Upland Cleanup Unit, Site restoration will continue to focus on re-establishing the facility for long-term maritime commercial operational use.

1.5 Pre-Remedial Design Investigation Results

[New Subsection 1.5 added.]

The PRDI was implemented during the summer of 2023, based on the final PRDI Project Plans approved by Ecology on May 25, 2023 (Landau 2023). The primary objectives of the PRDI were to provide the necessary data to fully inform the requirements of the Site's remedial design and to support finalization of the Site's Sediment Cleanup Unit definition and corresponding remedial requirements. Based on the initial results of the summer 2023 PRDI activities, additional work was conducted at the Site to refine the results and complete those planned PRDI activities that could not be implemented during the first phases of investigation.

The primary elements of the PRDI included the following:

- Completion of an updated topographic survey
- Inspection and conditions assessment of existing shoreline infrastructure
- Collection of shallow surface soil samples for waste characterization
- Collection of subsurface soil samples for geotechnical laboratory analysis
- Advancement of geotechnical explorations to further evaluate structural design and Site restoration requirements
- Collection of surface and subsurface (i.e., core) sediment samples for chemical analyses

- Completion of an updated bathymetric survey.

1.5.1 Topographic and Bathymetric Survey

Both topographic and bathymetric surveys were conducted to better inform preparation of the remedial design. The topographic survey was completed at the start of PRDI activities (i.e., upland surface and shoreline infrastructure surveys during low-tide conditions), with the bathymetric survey conducted after completion of sediment sampling (during high-tide conditions). The surveys were completed to generate the necessary design-level survey data to inform the cleanup action and shoreline infrastructure management requirements.

The results of the two surveys were ultimately overlaid to create a single current surveyed surface of the Site. In the instances where the resulting topographic and bathymetric data were in conflict, the design survey surface defaulted to the bathymetry (e.g., areas where topographic data were available for pier decking overlying Site sediment).

1.5.2 Structural Investigation

A structural conditions investigation was conducted of various features and structures on the Site's shoreline. The inspection was conducted from the bulkheads and along the shoreline, as well as from kayaks in late May 2023. The inspection was conducted during both low- and high-tide conditions to provide visual access to the full height of the existing bulkhead and piers.

For this investigation, visual and tactile inspection methods were used, and a hammer was used to "sound" piles to assist in identifying areas of decay. The structural elements assessed were assigned an element-level damage rating, with damages defined as minor, moderate, major, or severe. The resulting assessment provided corresponding ratings for each structure inspected, provided preliminary rehabilitation recommendations, and developed considerations as to the structures' ability to perform their original design function and potential to provide long-term performance when integrated with the Site's remedial design.

The inspection included review of the following features:

- Timber bulkheads (southern face and southwestern corner of the Site, and within the marine railway well)
- West timber pier (i.e., West Dock
- East timber pier (i.e., existing 30-ton travel lift pier).

Field observations were collected to generate a condition assessment rating for each structure inspected, provide preliminary advanced rehabilitation recommendations, and develop considerations as to the structures' ability to perform their original design functions and provide long-term performance of the Site's remedy (i.e., containment).

The assessment concluded that the existing timber bulkhead system has extensive areas of severe deterioration, including sections where timber piles and lagging are missing and large areas of observed fill material loss. Areas of the deck of the West Pier are completely missing and it was recommended that the area be roped-off and made inaccessible for operational use. A loading analysis and additional conditions assessment were recommended to evaluate future use of the West Pier and travel lift pier. All three existing structural elements included in the inspection were determined to be past their service life and attempting repairs would not be economical.

1.5.3 Upland Cleanup Unit Investigations

Additional Upland Cleanup Unit PRDI activities completed in summer 2023 included shallow surface soil sample collection (for waste characterization) and subsurface geotechnical explorations to assess existing loading capacity and soil conditions to inform Site surface restoration requirements.

For waste characterization evaluation, samples were collected from the upper 2-ft interval across three characterization zones (Zones 1 through 3). Soil collected in each zone was composited into one sample for chemical analysis. One composite sample was analyzed for each characterization zone for the list of constituents necessary to evaluate offsite disposal options and remedy conformance requirements. The composite waste characterization analytical results indicate that the potential material to be removed, based on the requirements of the final cleanup action and Site restoration strategy, is non-hazardous and can be disposed of at a licensed Resource Conservation and Recovery Act (RCRA) Subtitle D disposal facility.

For geotechnical soils analysis, additional upland soil was collected to assess soil conditions and how they relate to informing the remedial design and Site restoration requirements (e.g., design loading requirements, etc.).

1.5.4 Geotechnical Investigation

Subsurface conditions at the Site were explored during multiple Site mobilizations through advancement of deep geotechnical borings (in May and June 2023 and again in early 2024). In addition to recording detailed field observations and preparing supporting geotechnical boring logs, geotechnical laboratory tests were also conducted on selected soil samples retrieved from the explorations to characterize relevant engineering properties and index parameters of the soils encountered at the Site, including Atterberg limit evaluation, consolidation testing, and compression testing.

Observations and testing conducted during the geotechnical investigation indicate that the Site is underlain by varying thicknesses of very loose to dense fill/marine deposits, further underlain by very soft to hard glaciomarine drift. If not appropriately accounted for in remedial design development, liquefaction of the fill/marine deposits is anticipated to result in lateral spreading. Additionally, numerous thin layers of liquefiable soils were also observed within the glaciomarine drift deposits,

extending to approximately –90 ft mean lower-low water (MLLW). These liquefiable layers will result in liquefaction-induced settlement that will impart large downdrag loads on pile foundations during seismic events. To compensate for the downdrag loads, pile foundations that are loaded in compression must extend sufficiently below –90 ft MLLW.

The completed geotechnical engineering evaluation provided information to inform a list of key design elements, including valuable information that will inform modeling and engineering analysis for the design. Specifically, the geotechnical engineering information will inform seismic design requirements, liquefaction considerations, lateral spreading potential, engineering soil parameter selection, driven pile foundations and installation requirements, bulkhead design, and earthworks construction.

1.5.5 Sediment Cleanup Unit Investigations

[New Subsection 1.5.5 added.]

The PRDI activities conducted during the summer of 2023 included additional sediment characterization to evaluate current sediment quality conditions, in particular concentrations of the persistent bioaccumulative toxin (PBT) compounds associated with the Site, and to refine the extent and definition of the Sediment Cleanup Unit (SCU), and finalize appropriate Site remedial strategies.

Surface and subsurface (i.e., core) sediment samples were collected and analyzed for those chemicals with established cleanup levels (CULs), which included metals, tributyltin (TBT), carcinogenic polycyclic aromatic hydrocarbons (cPAHs) and dioxin/furan-like polychlorinated biphenyls (PCBs).

Remedial Investigation (RI) and PRDI sediment analytical results (surface and subsurface samples) were reassessed against the Site's sediment cleanup objectives (SCOs), established as the chemical-specific CULs. Chemical-specific surface and subsurface analytical results were compared to their respective SCOs (i.e., chemical-specific CULs) and benthic criteria to determine the nature and extent of Site-related contamination in surface and subsurface sediment. Results from sampling locations whose analytical results were non-detect at the reporting limit or not above established CULs, were excluded from the re-evaluation. The resulting chemical-specific evaluation was mapped using inverse distance weighting techniques to assess the relative influence of each detected concentration on neighboring sampling locations and identifying those areas representing the highest risk to human health and the benthic community.

The extent of SCU-1 is based on the areas of identified exceedances of SCOs (established as the Site-specific CULs) and benthic criteria in both surface and subsurface samples associated with those areas where historical Site boatyard activities have impacted sediment quality. The two primary areas of Site-related sediment contamination that will require remedial management, to establish conditions protective of both the benthic community and human health and higher trophic-level species, are:

- The area comprising the marine railway and associated shoreline infrastructure along the face of the Site, extending southward into the harbor access channel (further defined as SMA-1), and
- The area to the east of the Site, including the Site's eastern shoreline and the vicinity of the Sawtooth Pier, extending to the adjacent access channel (further defined as SMA-2[1]).

Given the ubiquitous nature of some of the contaminants identified throughout Blaine Harbor, specifically carcinogenic polycyclic aromatic hydrocarbons (cPAHs), the boundary for SCU-2 is not currently defined, and will be established once natural and regional background values have been calculated specifically for Blaine Harbor.

[1] SMA-1 and SMA-2 were previously identified as SMA-1a and SMA-1b, respectively.

2.0 CLEANUP STANDARDS

[No change, except to Section 2.1.2.]

2.1.2 Sediment

[No change, except for the following revised and newly inserted text at the end of this Subsection.]

For other non-metal PBTs (i.e., PCBs and cPAHs), due to the broad distribution of PCBs and cPAHs at concentrations exceeding the SCOs (based on protection of human health), the remedial investigation/feasibility study (RI/FS) summarized an approach for establishing a proposed CUL between the SCO and cleanup screening level (CSL) based on the net adverse environmental impacts that would be realized if dredging were to occur in such a large area. However, the RI established the CULs for these two PBTs at their respective risk-based SCOs.

Upon completion of 2023 PRDI activities and re-evaluation of the Site's sediment quality, the calculated risk-based SCO for cPAHs does not sufficiently reflect compliance with the intent of the Sediment Management Standards (SMS) rule and consistency with the Sediment Cleanup User's Manual (SCUM). Therefore, the risk-based SCO and CSL are adjusted to the natural and regional background values for Bellingham Bay, respectively. Based on the ubiquitous nature of cPAHs in Blaine Harbor and the potential for recontamination after remedial construction, the CUL is established as the risk-based CSL (i.e., 86 micrograms per kilogram) until natural and regional background values are established specific to Blaine Harbor (see Appendix A and Table 1).

As mentioned previously, given the ubiquitous nature of cPAHs and their detection throughout Blaine Harbor, the boundary for SCU-2 is not currently defined, and will be established after natural and regional background values have been calculated specifically for Blaine Harbor.

3.0 SELECTION OF THE PREFERRED CLEANUP ACTION

[No changes.]

4.0 CLEANUP ACTION PLAN

[No change, except for revisions and new text added to Subsections 4.1, 4.2, 4.4, and 4.5.]

4.1 Description of the Cleanup Action – Upland Cleanup Unit

[The following revised text includes new additions and replaces the previous published text for this Subsection.]

In the Upland Cleanup Unit, the cleanup action will include demolishing and removing the upland component of the marine railway system (i.e., side rails and concrete foundations) and ancillary operation support structures, excavating and disposing of the upper 2 ft (maximum) of contaminated soil where needed for the required capping thickness, capping the upland area with clean soil, and implementing institutional controls. The disproportionate cost analysis (DCA) process identified U-1 as the preferred remedy; however, because the weighted benefit scores with U-2 are very similar (within 5 percent), the engineering and remedial design process re-evaluated targeted depth of soil removal and capping surface options, including a combination of a clean gravel cap and hard surface (i.e., asphalt/concrete) depending on final Site restoration requirements.

In the uplands, cleanup will include the excavation and offsite disposal of the upper 2 ft of soil where needed for the required capping thickness. This will provide a significant amount of contaminant mass removal from the shallow depths where contamination was identified during the RI, and where future Site intrusive activities could potentially expose workers to contaminated soil and/or cause releases of hazardous substances to the environment. Based on finish grade requirements, some areas of the Upland Cleanup Unit may not require excavation in advance of placement of the required 2-ft minimum cap thickness. Regardless, the surface to be capped will be lined with a geotextile fabric in advance of backfilling to establish the material cap and achieve the required final grades. The resulting ground surface will be sloped to provide for stormwater management, and institutional controls will be implemented so that future intrusive subsurface work at the Site would be conducted only in coordination with Ecology, to ensure the permanence of the remedy.

Based on the RI and PRDI data, any volume of excavated soil that will need to leave the Site will be acceptable for disposal at a permitted facility meeting Washington State requirements of Chapter 173-350 or -351 Washington Administrative Code (WAC), or will comply with federal RCRA Subtitle D requirements. Approximately 1,000 cubic yards of soil would need to be excavated in advance of geotextile confining layer placement and backfilling to finished grade. Deeper soil contamination is minimal in comparison to the surface soils that will be removed. The deeper soil would be contained-in-place by the environmental cap, bulkhead improvements to prevent lateral migration, and importantly, institutional controls to ensure long-term effectiveness of the capping system.

The demolition and removal of the marine railway system side rails will allow access to remove the adjacent contaminated soils and support surface regrading to better direct and manage stormwater to

achieve Remedial Action Objective (RAO) 2 (RAO-2). The upland marine railway system will be backfilled and replaced with alternate systems to preserve ongoing boatyard operations. Backfill in the marine railway well may include some volume of stabilized upland soil, if appropriate, that is removed in advance of installation of geotextile fabric and final backfill to grade. The primary components of the cleanup action to be conducted in the Upland Cleanup Unit are shown on Figure 10.

This cleanup approach in the uplands is anticipated to achieve both RAO-1 (prevent direct contact with contaminated soil) and RAO-2 (prevent releases of hazardous substances in upland soil and stormwater to surface water and marine sediment) through a combination of source control, containment, institutional controls, and stormwater management.

Stormwater collection and control will be required and implemented because current and potential future Site uses involve activities that require a National Pollutant Discharge Elimination System (NPDES) Boatyard General Permit, an industrial stormwater general permit, or an individual permit. These permits require the collection and analysis of stormwater samples, and the potential treatment of stormwater, if applicable benchmark criteria are exceeded.

Institutional control would be in the form of an environmental covenant for the Site to prevent activities that could compromise the integrity of the cleanup or otherwise result in unacceptable risks to human health or the environment. The restricted activities would include those that could result in releases of hazardous substances or exposure of workers to contaminated soil.

4.2 Description of the Cleanup Action – Sediment Cleanup Unit

[The following revised text includes new additions and replaces the previous published text for this Subsection.]

In SCU-1, two Sediment Management Areas (SMA-1 and SMA-2) were identified where cleanup actions will be implemented. The cleanup action in the SMAs will include demolishing and removing infrastructure (e.g., the marine railway system, including removal of the steel rails, rail ties, concrete, and piles; adjacent docks; piles; float and the southern extent of the Sawtooth Pier); installation of a restored bulkhead; and removing contaminated marine sediment by dredging. The marine railway will not be replaced and alternate infrastructure (such as a travel lift and associated structures) will be reintroduced to preserve ongoing boatyard operational capacity. Completion of the PRDI will further refine the dredging footprint within both SMA-1 and SMA-2.

Sediment dredging within both SMAs, roughly 10,000 cubic yards, will remove contaminated sediment exceeding the SCO based on protection of benthic organisms and human health. Dredging is expected to achieve the sediment cleanup standards established for PBTs within SCU-1 based on reducing the SCU-wide area-weighted average of PBTs. The PRDI included the collection of additional PBT data (dioxin/furan-like PCB congeners and cPAHs) and evaluated current SCU-wide sediment quality area-

weighted average concentrations and defined the Site's marine unit. The primary components of the cleanup action to be conducted in the SCU are shown on Figure 10.

Prior to dredging, environmental controls would be put into place as required by the project permits to protect the surrounding marine environment during the cleanup efforts. A silt curtain would be used to control turbidity and potential redistribution of contaminated sediment during construction, and limit impacts to surface water quality and sediment redistribution. Surface water quality monitoring would be conducted during the construction period to confirm compliance with applicable regulations. In addition, the removal of pilings and/or in-water structures will comply with DNR and US Environmental Protection Agency appropriate guidelines and procedures.

Based on visual and structural inspections, the existing bulkhead would not be stable under dredging conditions if sediment is removed from near the toe of the bulkhead. As a result, the bulkhead requires replacement. Based on similarity in cost, it is assumed that the bulkhead would be replaced with a steel sheetpile bulkhead placed immediately in front of the existing bulkhead to allow for sediment dredging. The current condition of the bulkhead is allowing contaminated upland soil to erode from the bulkhead face and discharge to marine sediment. As a result of eliminating this erosion, the bulkhead replacement would provide source control for the soil-to-sediment migration pathway. Restoration of the bulkhead would partially achieve RAO-2, RAO-3, and RAO-4.

Bulkhead restoration will be necessary in advance of dredging so that it can be accomplished near the uplands where contamination is highest, without undermining the Site integrity. The existing marine railway system and adjacent docks will also need to be removed to allow for unimpeded dredging. These physical preparations for dredging have the additional benefit of removing a significant amount of creosote-treated wood from the aquatic environment, which is a likely source of some of the cPAH contamination identified at the Site.

After the marine railway system is removed and the bulkhead replaced, dredging of contaminated sediment would be conducted throughout SMA-1 and SMA-2. This assumes that mechanical dredging will be conducted using a clamshell or environmental bucket or using a fixed-arm excavator operated over water from a barge and/or from the upland's shoreline. Removing contaminated sediment from SMA-1 and SMA-2 would achieve RAO-3, and partially achieve RAO-4.

As mentioned previously, given the ubiquitous nature of cPAHs and their detection throughout Blaine Harbor, the specific boundary for SCU-2 is not currently defined, and will be established once natural and regional background values have been calculated specifically for Blaine Harbor. No remedial activities outside of SCU-1 are planned at this time.

4.2.1 Former Tide Grid

[No change, except the following is inserted at the end of this Subsection.]

Additional 2023 PRDI activities conducted within the vicinity of the former tide grid area did result in detections of several constituents at concentrations above established CULs. However, the nature and extent of contamination and the related source pathway dynamics were determined to not be associated directly with historical activities conducted at the Site. Therefore, the former tide grid area is exclude from the definition of SCU-1 and contamination in this area will be addressed under a separate future action.

4.2.2 Offsite Disposal of Dredged Sediment

[The following revised text includes new additions and replaces the previous published text for this Subsection.]

It is assumed that dredged sediment would be dewatered on a small barge and the decanted water drained into the harbor. Appropriate procedures for management of decant water will be further established with the final remedial design. Final disposition of the dredged sediments will also be determined during the remedial design phase. The material would not be considered for open-water disposal, but instead would likely be transported off Site for disposal at an upland regulatory facility or potentially stabilized and re-used on Site if determined appropriate (e.g., stabilized and contained beneath the upland cap and behind the newly restored bulkheads, etc.).

During the PRDI, additional sampling was conducted in the areas around SMA-1 and SMA-2 to update and refine the planned dredged prisms. Figure 10 presents the areas of SMA-1 and SMA-2 where dredging is planned, based on data collected during both the RI and PRDI phases of Site activities. The total quantity of contaminated sediment to be removed from the Site is approximately 10,000 cubic yards.

4.4 Cleanup Action Implementation and Restoration Timeframe

[The following revised text includes new additions and replaces the previous published text for this Subsection.]

The cleanup action described herein will be implemented by the Port, based on this CAP. Implementation will include remedial design, permitting, preparation of plans and specifications, construction (potentially in two phases), and post-construction monitoring and maintenance.

The remedial design activities will be initiated in late summer 2023 through 2026. Construction is anticipated in summer 2026 through early 2027, based in part on permitting for the final design, including the authorized in-water work window. Based on the estimated restoration timeframe and project schedule, it is estimated the Site will achieve compliance with cleanup standards following dredging in SMA-1 and SMA-2. The project permitting process will be initiated following development of the engineering design report.

It is anticipated that permanent removal of the marine railway system and adjacent docks and installation of the new restored bulkhead at the shoreline would be sequenced to occur in advance of the other cleanup activities, in particular the required sediment dredging. It is assumed that afterward, the remaining components of the cleanup could then be implemented concurrently or independently.

4.5 Compliance Monitoring

[The following revised text includes new additions and replaces the previous published text for this Subsection.]

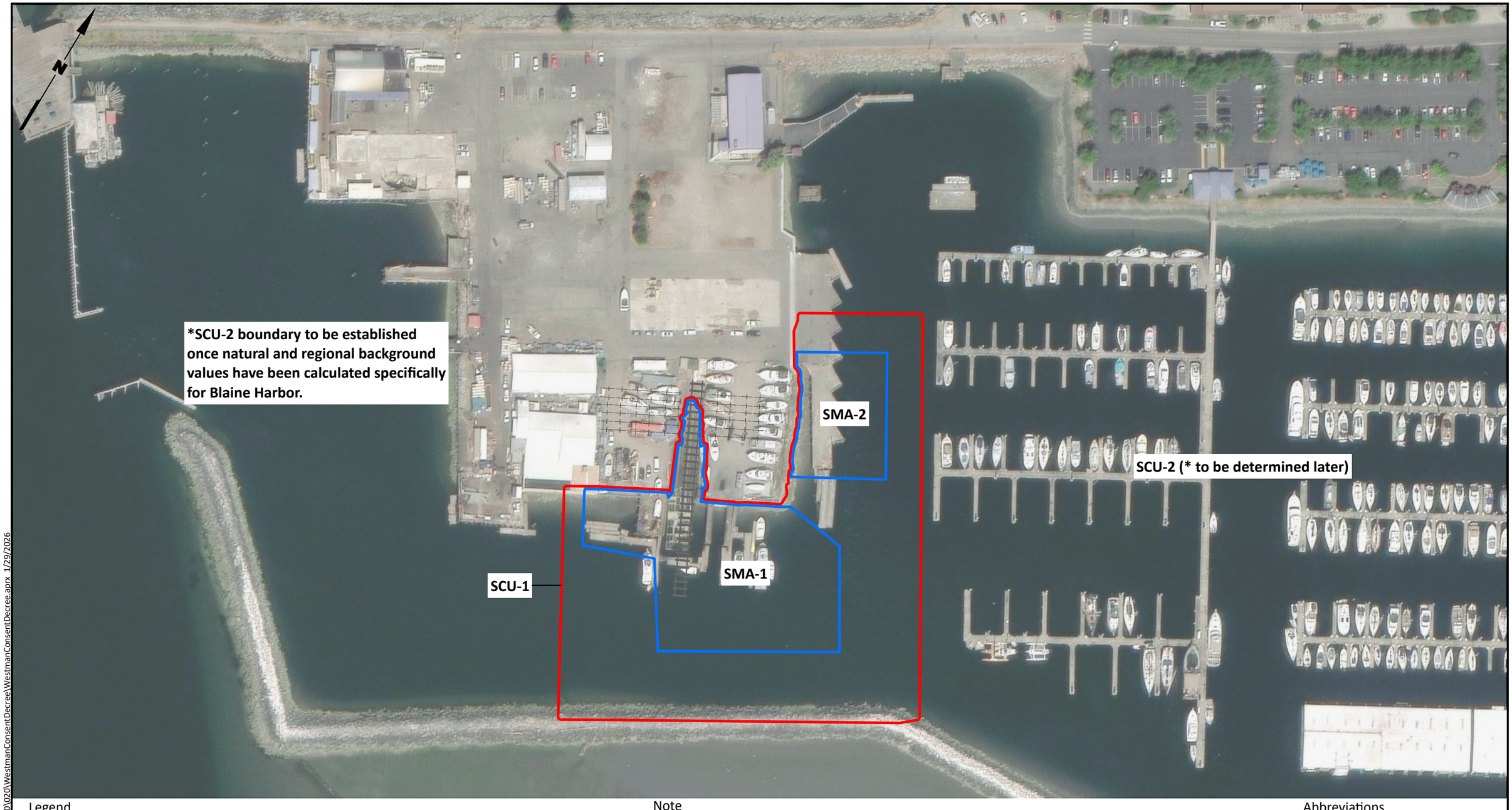
MTCA and SMS require compliance monitoring for all cleanup actions, as described in WAC 173-340-410, and periodic reviews under WAC 173-340-420 to ensure the long-term integrity of the cleanup action. Long-term monitoring and maintenance will also be necessary to ensure the integrity of the Site cleanup after construction is complete. Both the monitoring and maintenance functions will be prescribed in a CMP, which will be developed during the remedial design process in coordination with and under the review of Ecology.

Compliance monitoring will include protection monitoring, performance monitoring, and confirmation monitoring. Protection monitoring is concerned with human and environmental impacts and will address topics such as safety requirements during construction. Performance monitoring will be conducted to demonstrate that the constructed remedy meets cleanup standards and will include the collection and analysis of samples to confirm soil quality at the final depth of excavation, and sediment quality at the newly-created sediment surface.

Confirmation monitoring will address the long-term effectiveness of the remedy in meeting cleanup standards. Specific procedures, analytical parameters, and sampling locations and frequency for the confirmation monitoring will be presented in the CMP. Similarly, the scope and timing of the inspection program, the institutional control provisions, and other aspects of long-term operations and maintenance monitoring will be established in the CMP.

Compliance monitoring would be conducted after dredging to confirm post-construction sediment quality. This would include collecting surface sediment samples throughout SMA-1 and SMA-2 and the adjacent areas within SCU-1 (to evaluate recontamination potential), analyzing the sediment for IHSs, and comparing the results to the cleanup standards established for protection of benthic organisms at the Site. Bathymetric surveys would also be conducted both pre-and post-construction to confirm dredging volumes, that dredging design depths and lateral limits were achieved, and that the dredging residuals layer was properly placed (if applicable).

It is common for sediment resuspension during the dredging process to result in a thin veneer of contaminated sediment residuals that settles on the clean dredge surface. If compliance monitoring indicates that a residuals layer has formed on the dredge surface, a thin layer of clean soil/sediment



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Legend

- Sediment Cleanup Unit
- Sediment Management Units

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 125 250

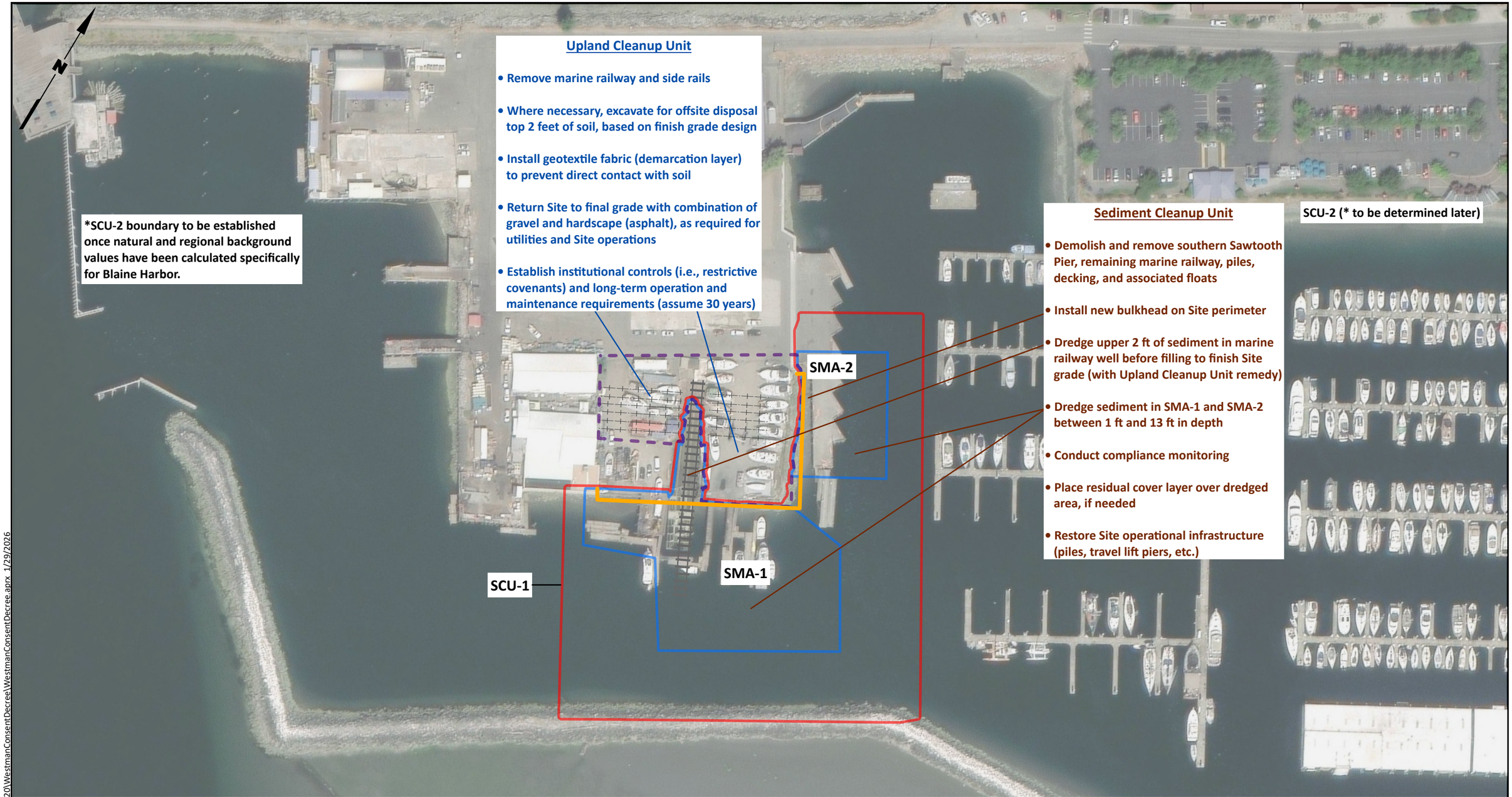
Scale in Feet

Abbreviations

SCU = Sediment Cleanup Unit
SMU = Sediment Management Unit

LANDAU ASSOCIATES

Westman Marine Cleanup Site Engineering Design Report Blaine, Washington	**Sediment Cleanup Units**	Figure 7



Legend

- Upland Cleanup Unit
- Sediment Cleanup Unit
- Sediment Management Units
- New Bulkhead Alignment

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

0 125 250

Scale in Feet

Abbreviations

SCU = Sediment Cleanup Unit
SMU = Sediment Management Unit

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LANDAU ASSOCIATES

Westman Marine Cleanup Site Engineering Design Report Blaine, Washington	**Cleanup Action Plan - Summary**	Figure 10

Table 1
Cleanup Levels for Affected Media
Westman Marine Site
Blaine, Washington

Indicator Hazardous Substance	Soil Cleanup Level (a)		Marine Sediment Cleanup Level (b, c)	
Arsenic	20	mg/kg	11	mg/kg
Cadmium	--	--	5.1	mg/kg
Copper	3,200	mg/kg	390	mg/kg
Lead	--	--	21	mg/kg
Mercury	2	mg/kg	0.41	mg/kg
Zinc	--	--	410	mg/kg
Polychlorinated Biphenyls (Dioxin-Like Congeners; TEQ)	--	--	0.7 (d)	ng/kg
Polychlorinated Biphenyls (Total Aroclors)	160	µg/kg	--	--
Carcinogenic Polycyclic Aromatic Hydrocarbons (TEQ)	140	µg/kg	86 (e)	µg/kg
Tributyltin	--	--	167 (f)	µg/kg

Notes:

-- = Not applicable because constituent is not an Indicator Hazardous Substance for the medium.

(a) Cleanup level based on lowest soil criteria corrected for practical quantitation limit (PQL) and background.

(b) Cleanup level based on Sediment Management Standards (SMS; Chapter 173-204 WAC) and evaluation of risk-based criteria for chemicals considered persistent, bioaccumulative toxins. Cleanup levels address protection of human health and higher trophic-level species. Revised cleanup levels differ in some instances from those originally proposed in the RI/FS.

(c) Dry weight basis.

(d) Based on the PQL presented in Ecology's SCUM (Ecology 2021).

(e) The risk-based SCO was calculated at 491 µg/kg, which was deemed by Ecology to not sufficiently reflect compliance with the intent of the SMS rules and consistency with SCUM. Therefore, the risk-based SCO and CSL were set at the natural and regional backgrounds for Bellingham Bay, respectively. Based on the ubiquitous nature of cPAHs in Blaine Harbor and the possiblity of recontamination potential within the remedial footprint post construction, the cleanup level was revised to the CSL (i.e., 86 µg/kg) until regional background values are established specific to Blaine Harbor.

(f) Sediment cleanup level for bulk tributyltin based on Site-specific correlation established between porewater and bulk concentrations.

Abbreviations and Acronyms:

µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
ng/kg - nanograms per kilogram
PQL = practical quantitation limit
CSL = cleanup screening level
RI/FS = remedial investigation/feasibility study
SCO = sediment cleanup objective
SCUM = Sediment Cleanup User's Manual
SMS = Sediment Management Standards
TEQ = toxicity equivalence
WAC = Washington Administrative Code

Appendix A

TABLE OF CONTENTS

[No changes, except revision/update to Section 3.0 and additional text inserted at the end of Subsection 3.2.]

TABLES

[No changes, except revisions to Table A-6.]

LIST OF ABBREVIATIONS AND ACRONYMS

ADAF ..... age-dependent adjustment factor
BAF ..... bioaccumulation factor
BSAF ..... biota-sediment accumulation factor
CAP ..... cleanup action plan
CLARC ..... Ecology's Cleanup Levels and Risk Calculations database
CPFo ..... oral cancer potency factor
CR ..... cancer risk
CSL ..... cleanup screening level
cPAH ..... carcinogenic polycyclic aromatic hydrocarbon
CPF ..... cancer potency factor
CUL ..... cleanup level
DMMP ..... Dredged Material Management Program
Ecology ..... Washington State Department of Ecology
ELCR ..... excess lifetime cancer risk
ELS ..... early life stage
EPA ..... US Environmental Protection Agency
FS ..... feasibility study
g/day ..... grams per day
HQ ..... hazard quotient
IHS ..... indicator hazardous substance
km^2 ..... square kilometers
µg/kg ..... micrograms per kilogram
µg/L ..... micrograms per liter
mg/kg ..... milligrams per kilogram
ηg/kg ..... nanograms per kilogram
PBT ..... persistent bioaccumulative toxin
PCB ..... polychlorinated biphenyl
PQL ..... practical quantitation limit
RBC ..... risk-based concentration
RfD ..... reference dose
RfDo ..... oral reference dose
RI ..... remedial investigation
SCO ..... sediment cleanup objective
SCUM ..... Sediment Cleanup User's Manual
Site ..... Westman Marine Site
SL ..... screening level
SMS ..... Sediment Management Standards

LIST OF ABBREVIATIONS AND ACRONYMS (CONTINUED)

SUF ..... site use factor
TBT ..... tributyltin
TCDD ..... tetrachlorodibenzodioxin
TEF ..... toxicity equivalency factor
TEQ ..... toxicity equivalence
USACE ..... US Army Corps of Engineers

1.0 INTRODUCTION

[No change.]

2.0 DEVELOPING SEDIMENT CLEANUP LEVELS

[No change.]

2.1 Background Concentrations and Practical Quantitation Limits

[No change.]

2.2 Benthic Criteria

[No change.]

2.3 Risk-Based Concentrations

[No change.]

2.3.1 Exposure Pathways

2.3.2 Exposure Scenarios

2.3.3 Acceptable Health Risk

2.3.3.1 Cancer Risk and/or Hazard Quotient

2.3.3.2 Cancer Potency Factor and/or Reference Dose

2.3.3.3 Site Use Factor

2.3.3.4 Biota-Sediment Accumulation Factor

2.3.3.5 Bioaccumulation Factor

2.3.3.6 Fish/Shellfish Lipid Fraction

2.3.3.7 Fraction of Organic Carbon in Sediment

2.3.4 Calculating Risk-Based Concentrations

2.3.4.1 Standard Seafood Consumption Risk-Based Concentrations

2.3.4.2 Standard Beach Play Risk-Based Concentrations

2.3.5 Calculating RBCs for TEQ Factor-Modified PBTs

3.0 ESTABLISHING SEDIMENT CLEANUP LEVELS FOR PERSISTENT BIOACCUMULATIVE TOXINS

[No changes, except revision/update to the introduction and additional text inserted at the end of Subsection 3.2.]

For this Site, SCO and CSL values were developed in accordance with SMS, Ecology guidance, and as generally outlined by the approach and procedures described above. This section summarizes the process of establishing these values for each IHS, and presents the rationale for selecting the CUL. In accordance with SMS, the CUL is initially set at the SCO but may be adjusted upward as high as the CSL, based on Site-specific evaluation of technical feasibility and net adverse environmental impact.

During the RI/FS, it was suggested that the CUL would be established at a value between the SCO and CSL for some constituents, based on consideration of the potential adverse impacts that could occur if dredging was necessary on a much larger scale. The Site marine sediment CULs were initially set at the lowest value of the SCOs compared across the relevant receptor groups (i.e., the benthic organism community, higher trophic-level species, or humans) for each Site-specific PBT, in part because the SCOs were determined to be technically feasible to achieve with a net positive impact to the environment.

Based on the updated calculations and further evaluation of current Site sediment quality, the CULs are established at the SCO, maintaining a strongly protective remedy, with the exception of the CUL for cPAHs, which is discussed in further detail in Section 3.2.Table A-6 summarizes the results of this evaluation and the CULs to be adopted in the CAP.

The following subsections provide additional information regarding the CL development, including a summary of how the CLs have been updated from those developed during the RI/FS.

3.1 Polychlorinated Biphenyls

[No change.]

3.2 Carcinogenic Polycyclic Aromatic Hydrocarbons

[Additional text inserted at the end of this Subsection.]

However, the calculated risk-based SCO does not sufficiently reflect compliance with the intent of the SMS rule and consistency with SCUM. Therefore, the risk-based SCO and CSL are being revised to the natural and regional backgrounds for Bellingham Bay, respectively. Based on the ubiquitous nature of cPAHs in Blaine Harbor and the potential for recontamination after remedial construction, the CUL is established as the risk-based CSL (i.e., 86 µg/kg) until regional background values are established specific to Blaine Harbor.

3.3 Tributyltin

[No change.]

3.4 Persistent Bioaccumulative Toxin Metals

[No change.]

4.0 REFERENCES

[No change.]

Table A-6
Marine Sediment Cleanup Levels for Persistent Bioaccumulative Toxins
Westman Marine Site – Blaine, Washington

Parameter	Natural Background (a)	PQL (b)	Risk-Based SCO	Risk-Based CSL	Benthic SCO (c)	Benthic CSL (c)	Proposed Cleanup Level (d)	Units
Dioxin-like PCBs- TEQ	0.2	0.7	0.003	0.03	-	-	**0.7**	ηg/kg
cPAHs - TEQ (e)	21	9	21	86	-	-	**86**	µg/kg
Tributyltin (non-carcinogen)	-	-	167	738	238	738	**167**	µg/kg
Arsenic	11	0.3	0.43	0.43	57	93	**11**	mg/kg
Cadmium	0.8	0.07	5.1	5.1	5.1	6.7	**5.1**	mg/kg
Lead (f)	21	0.1	450	450	450	530	**21**	mg/kg
Mercury	0.2	0.02	0.5	0.5	0.41	0.59	**0.41**	mg/kg

Notes:

(a) From SCUM Table 10-1; calculated values (90/90 UTL) for marine sediment natural background from the data sets in Appendix I and Bold study (Ecology 2019b).

(b) From SCUM Table 11-1; programmatic sediment and tissue PQLs used to establish the PQL-based SCO and CSL (Ecology 2019b).

(c) From SCUM Table 8-1; marine and freshwater sediment chemical criteria for protection of the benthic community (Ecology 2019b).

(d) Proposed revised cleanup levels in some cases differ from those presented in the RI/FS (LAI 2020). The previously proposed cleanup levels in the RI/FS are as follows: cPAHs = 400 µg/kg, dioxin-like PCBs = 0.9 ng/kg, tributyltin = 238 µg/kg, cadmium = 0.8 mg/kg, mercury = 0.2 mg/kg.

(e) The risk-based SCO was calculated at 491 µg/kg, which was deemed by Ecology to not sufficiently reflect compliance with the intent of the SMS rules and consistency with SCUM. Therefore, the risk-based SCO and CSL were set at the natural and regional backgrounds for Bellingham Bay, respectively. Based on the ubiquitous nature of cPAHs in Blaine Harbor and the possiblity of recontamination potential within the remedial footprint post construction, the cleanup level was revised to the CSL (i.e., 86 µg/kg) until regional background values are established specific to Blaine Harbor.

(f) The more conservative natural background value for lead was chosen as the proposed cleanup level for the Site.

Abbreviations and Acronyms:

µg/kg = micrograms per kilogram
cPAHs = carcinogenic polycyclic aromatic hydrocarbons
CSL = cleanup screening level
Ecology = Washington State Department of Ecology
mg/kg = milligrams per kilogram
ηg/kg = nanograms per kilogram
PCBs = polychlorinated biphenyls
PQL = practical quantitation limit
RI/FS = remedial investigation/feasibility study
SCO = sediment cleanup objective
SCUM = Sediment Cleanup User's Manual (Ecology 2019b)
SMS = Sediment Management Standards
TEQ = toxicity equivalence
UTL = upper tolerance limit
WAC = Washington Administrative Code

EXHIBIT C

EXHIBIT C
SCHEDULE OF DELIVERABLES
WESTMAN MARINE CLEANUP SITE
BLAINE, WASHINGTON

Task	Deliverables	Due Date[1]
A. Administrative		
A.1	Progress Reports	Quarterly on the 10th of the month beginning after the effective date of the Consent Decree
B. Design – Upland Cleanup Unit and SCU-1		
B.1	100% Construction Plans and Specifications (Plans and Specs) per WAC 173-340-400(4)(b)	Within 90 days of the effective date of the Consent Decree
C. Construction – Upland Cleanup Unit and SCU-1		
C.1	Construction Procurement	Within 120 days after Ecology's acceptance of the 100% Plans and Specs (B.1) and 90 days of receipt of all required permits, whichever occurs later
C.2	Construction	Within the period authorized by the USACE permit
D. Post-Construction Work – Upland Cleanup Unit and SCU-1		
D.1	Draft Cleanup Action Completion Report (CACR), including as-built drawings	Within 180 days of construction contractor demobilization and determination of physical completion
D.2	Final CACR	Within 90 days of receipt of Ecology's final comments on the draft CACR (D.1)
D.3	Draft Institutional Control (IC) Plan to Ecology	Within 90 days of construction contractor demobilization and determination of physical completion
D.4	Final IC Plan	Within 45 days of receipt of Ecology's final comments on the draft IC Plan (D.3)

Notes:

Schedule in calendar days.
Due dates falling on weekends or holidays will be the following business day.

[1] Deliverable due date may be modified with Ecology concurrence without amendment to the Consent Decree.

EXHIBIT D

EXHIBIT D
LIST OF REQUIRED PERMITS AND APPROVALS

APPLICABLE PERMITS OR APPROVALS AND REQUIREMENTS

The cleanup action to be performed at the Site requires the following permit and environmental review process:

US Army Corps of Engineering Individual Permit

Section 404 of the Clean Water Act, 33 U.S.C. § requires a permit prior to discharging dredged or fill material into the waters of the United States, including special aquatic sites such as wetlands. The Site Cleanup Action will be conducted under the conditions and requirements of a Standard Individual Permit issued by the US Army Corps of Engineers, which covers the cleanup of hazardous and toxic waste that is performed, ordered, or sponsored by a government agency with established legal or regulatory authority. The Standard Individual Permit will be applied for through a Joint Aquatic Resources Permit Application (JARPA).

NPDES Construction Stormwater General Permit

The Cleanup Action will require a Construction Stormwater General Permit covering the National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit. The Washington State Department of Ecology (Ecology) administers the federal NPDES regulations in Washington State. All construction activities that disturb more than 1 acre during construction must obtain an NPDES construction stormwater permit. The NPDES permit program is delegated to Washington State by the US Environmental Protection Agency under the federal Clean Water Act, § 1251 et seq. Pursuant to Revised Code of Washington (RCW) 70.105D.090(2), Ecology has determined that the procedural requirements of an NPDES permit are not exempt from Model Toxics Control Act actions. The Cleanup Action will be conducted under the requirements of an NPDES Construction Stormwater General Permit issued separately by Ecology.

State Environmental Policy Act Integrated Compliance (RCW 43.21C.036 and WAC 197-11-250 through 259)

Compliance with the State Environmental Policy Act (SEPA), Chapter 43.21C RCW, will be achieved by conducting SEPA review in accordance with applicable regulatory requirements, including Washington Administrative Code (WAC) 197-11-268, and Ecology guidance as presented in Ecology Policy 130A (Ecology 2004).[1] Ecology is the lead SEPA agency and coordinated SEPA review as part of the Cleanup Action Plan development. Ecology review provided the SEPA Determination of Nonsignificance (DNS) on May 2, 2023 with a public comment period for the DNS that ended on July 5, 2023.

[1] Ecology. 2004. Toxics Cleanup Program Policy 130A. Coordination of State Environmental Policy Act and Model Toxics Control Act. Washington State Department of Ecology. July 28. https://fortress.wa.gov/ecy/publications/documents/0409101.pdf.

Washington Department of Natural Resources Aquatic Land Use Application

Portions of the Cleanup Action occur within areas of State-owned aquatic tidelands managed by the Washington Department of Natural Resources (DNR). DNR's Aquatic Resources Program manages State-owned aquatic lands and will determine the type of authorization required (e.g., license, lease, easement, etc.) for the Cleanup Action. The Aquatic Land Use Authorization for the Cleanup Action will be initiated through the JARPA process.

EXHIBIT E

EXHIBIT E
APPLICABLE SUBSTANTIVE REQUIREMENTS OF PROCEDURALLY EXEMPT PERMITS OR APPROVALS

APPLICATION PERMITS OR APPROVALS AND REQUIREMENTS

The Cleanup Action to be performed at the Site is exempt from the procedural requirements of the following permits and approvals but must meet the substantive requirements:

Washington Department of Fish and Wildlife Hydraulic Project Approval

Chapter 220-110 of the Washington Administrative Code (WAC; Hydraulic Code Rules) and Chapter 77.55 of the Revised Code of Washington (RCW; Construction Projects in State Waters) regulate work that uses, diverts, obstructs, or changes the natural flow or bed of any of the salt or fresh water of the state and includes bed reconfiguration, all construction or other work waterward, and under and over the ordinary high water line, including dry channels, and may include projects landward of the ordinary high water line (e.g., activities outside the high water line that will directly impact fish life and habitat, falling trees into streams or lakes, bridge maintenance, dike construction, etc.). The Washington Department of Fish and Wildlife (WDFW) oversees the implementation of these laws and issues a Hydraulic Project Approval (HPA) with appropriate conditions to protect these resources. The Standard Individual Permit process will include completion and submittal of a Joint Aquatic Resources Permit Application (JARPA) that will also be provided to WDFW. The JARPA process will identify HPA substantive requirements that the Cleanup Action must comply with including coordinating closely with WDFW to ensure that the requirements of the HPA process are met.

Northwest Clean Air Agency Air Operating Permit

Title V of the federal Clean Air Act requires states to develop and implement an operation permit program in accordance with Title 40, Part 70 of the Code of Federal Regulations for facilities that are the largest sources of air pollution. These operating permits are often referred to as Air Operating Permits (AOPs), Title V Permits, or Part 70 Permits. Washington's Operating Permit Regulation is promulgated in Chapter 173-401 WAC. It requires a facility to have an Operating Permit if it has the potential to emit specific types and volumes of air pollutants. The Cleanup Action is not anticipated to emit air pollutants during the course of construction and therefore an AOP is not required.

City of Blaine Shoreline Substantial Development Permit – Substantive Requirements

The Cleanup Action is anticipated to be procedurally exempt from the requirement to obtain a Shoreline Substantial Development Permit (SSDP) because it consists of environmental cleanup and remediation activities conducted pursuant to a consent decree, which are exempt under RCW 90.58.355(1) and the City of Blaine (City) Shoreline Master Program (SMP). Although a shoreline permit is not anticipated to be needed, the project will need to comply with all substantive requirements of the City SMP. The Site is located within the City's Special Management Unit – Wharf District, and substantive compliance includes consistency with the Wharf District Master Plan, the SMP policies applicable to the Wharf District, and the City's zoning and design standards. The substantive requirements include meeting the applicable SMP policies and regulations, requirements associated with the Site's shoreline environmental

designation and Special Management Unit, and application of shoreline general regulations and use activity policies adopted by the City.

City of Blaine Construction Stormwater Requirements (BMC Title 13)

The Cleanup Action is not subject to a City-issued construction stormwater permit; however, the project must comply with all of the City construction stormwater requirements. Construction stormwater controls are implemented through City development review and Public Works permit conditions consistent with the Washington State Department of Ecology Stormwater Management Manual for Western Washington as adopted by the City. Applicable substantive requirements include preparation of a stormwater Site plan, preparation of a construction stormwater pollution prevention plan, source control of pollution, preservation of natural drainage systems and outfalls, on-Site stormwater management, runoff treatment, flow control, and system operations and maintenance.